

Guidance note on the AER's EII Assessment Approach for Non- contestable revenue determinations

Made under the Electricity Infrastructure
Investment Act 2020 (NSW)

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1 Introduction

1.1 Purpose of this guidance note

The purpose of this guidance note is to provide information to stakeholders on how the Australian Energy Regulator (AER) assesses revenue proposals for non-contestable projects under the NSW Electricity Infrastructure Roadmap.¹ The NSW government implements this roadmap through the *Electricity Infrastructure Investment Act 2020 (NSW)* (EII Act) and *Electricity Infrastructure Investment Regulation 2021 (NSW)* (EII Regulation).

The AER was appointed as Regulator under the EII Act in 2021. As such, the AER is required to make revenue determinations for Network Operators authorised or directed to carry out² network infrastructure projects³ under EII Act and EII Regulation (described together as the EII framework).

Our existing guideline 'Transmission Efficiency Test and revenue determination guideline for NSW non-contestable network infrastructure projects' (the non-contestable guideline) sets out how we will exercise our functions under Part 5 of the EII Act in making non-contestable revenue determinations. It is based on Chapter 6A of the National Electricity Rules (NER). Chapter 6A of the NER does not apply to a revenue determination under the EII Act, but we are required, as far as is reasonably practicable, to make guidelines consistent with Chapter 6A of the NER.⁴

To ensure consistency, it follows that our assessment approach should be based as far as is reasonably practicable on our assessment of projects under the NER.

The purpose of this guidance note is to sit underneath the existing non-contestable guideline and provide further information on how the AER assesses non-contestable revenue proposals. The assessment approach outlined in this document is consistent with Chapter 6A of the NER, except where there are compelling reasons to deviate based on the relevant objects and principles of the EII Act. We flag instances where the approach to assessment differs from the NER. It is important to read this guidance note in conjunction with the EII Act, EII Regulation, and the non-contestable guideline; as well as any supporting guidelines, incentive schemes and models referred to herein.

¹ Under the Roadmap, NSW will plan and implement up to five renewable energy zones (REZs). For a detailed explanation of the Roadmap and the entities undertaking it, please see <https://www.energy.nsw.gov.au/nsw-plans-and-progress/major-state-projects/electricity-infrastructure-roadmap>.

² EII Act, s. 38 and EII Regulation, cl. 47. Carrying out a network infrastructure project may include owning or leasing, constructing, financing, operating, and/or maintaining assets.

³ Under the EII Act, network infrastructure projects can be REZ Network Infrastructure Projects or Priority Network Infrastructure Projects. In this guidance note, where we refer to a 'project' or 'network infrastructure project' we are referring to either, unless specifically noted. The key difference is that REZ Network Infrastructure Projects authorised by the Consumer Trustee, require the Consumer Trustee to calculate a maximum capital cost. This is not required for REZ Network Infrastructure Projects directed by the Minister, or for Priority Network Infrastructure Projects authorised or directed by the Minister.

⁴ EII Regulation, cl. 47A(3)(b).

We will use the assessment approach set out in this guidance note to assess future non-contestable revenue proposals and will review and provide updates to our approach as required.

In developing this guidance note, we have sought to:

- clarify the AER's role when making revenue determinations for Network Operators
- explain the basis for the AER's assessment approach
- promote consistency and transparency
- provide clear guidance on how the AER will assess future non-contestable revenue proposals.

2 Total revenue and schedule of payments

2.1 The building block approach

The annual building block revenue requirement (ABBRR) for each year of the regulatory control period must be determined using a building block approach⁵ and calculated using the post-tax revenue model (PTRM).⁶ The total revenue cap is the sum of the ABBRRs for the regulatory control period.⁷ Under this approach, we determine the value of the building block costs that make up the ABBRR for each regulatory year. These building block costs are set out in section 2.2.

Revenue proposals must be prepared using our PTRM.⁸ Our PTRM was developed for the NER framework which brings together the various building block costs to calculate the ABBRR for each year of the regulatory control period.⁹ As the EII framework includes changes to the NER framework, we issued a guidance note that explains how a transmission PTRM prescribed under the NER can be amended for use in non-contestable revenue determinations under the EII framework (such as the exclusion of X factors).¹⁰ Accompanying the guidance note, we have also published a sample, non-binding EII PTRM.¹¹ We define an EII PTRM as the latest transmission PTRM amended in accordance with our guidance note. For simplicity, we call future references to EII PTRMs as PTRMs in this document.

In non-contestable determinations, we first calculate the ABBRR for each year of the regulatory control period. To do this, we consider the various building block costs and the trade-offs and interactions between these costs, service quality and across years. This reflects our holistic assessment of a proposal.

We understand the trade-offs that occur between building block costs and test the sensitivity of these costs to their various driver elements. These trade-offs are reflected in the calculations made in the PTRM.¹² Such understanding allows us to exercise judgement in determining the final inputs into the PTRM and the ABBRR that result from this modelling.

The building block costs (and the elements that drive those costs) used to determine the ABBRR are set out in section 2.2.

⁵ EII Chapter 6A, cl. 6A.5.4(a).

⁶ EII Chapter 6A, cl. 6A.5.1(a).

⁷ EII Chapter 6A, cl. 6A.4.2(a)(2).

⁸ EII Chapter 6A, cl. 6A.5.1(a).

⁹ NER, cl. 6A.5; EII Chapter 6A, cl. 6A.5.

¹⁰ AER, *Amending the Post Tax Revenue Model in NSW roadmap determinations – Guidance note*, November 2024.

¹¹ AER, *Non-contestable – EII Sample PTRM template*, November 2024.

¹² There are trade-offs that are not modelled in the PTRM but are reflected in the inputs to the PTRM. For example, service quality is not explicitly modelled in the PTRM, but the trade-offs between service quality and price are reflected in the forecast capital expenditure and operating expenditure inputs to the model. Other trade-offs are obvious from the calculations in the PTRM. For example, while it may be expected that a lower regulatory asset base would also lower revenues, the PTRM shows that this will not occur if the reduction in the regulatory asset base is due solely to an increase in the depreciation rate. In such circumstances, revenues increase as the increased depreciation amount more than offsets the reduction in the return on capital caused by the lower regulatory asset base.

2.2 The building block costs

The efficient costs to be paid to a Network Operator can be thought of as being made up of various building block costs.¹³ Our assessment focuses on each of the building block costs and the elements that drive these costs. The building block costs are approved reflecting trade-offs and interactions between the cost elements, service quality and across years.

Table 2.1 shows the building block costs that form the ABBRR for each year and where discussion on the elements that drive these costs can be found in this draft determination.

Table 2.1 Building block costs and relevant sections in this document

Building block costs	Section where assessment approach discussed
Return on capital	Regulatory asset base (Section 3) Rate of return (Section 4) Capital expenditure (Section 6)
Regulatory depreciation (return of capital)	Regulatory asset base (Section 3) Depreciation (Section 5) Capital expenditure (Section 6)
Operating expenditure	Operating expenditure (Section 8)
Estimated cost of corporate tax	Corporate income tax (Section 9)
Other revenue adjustments: <ul style="list-style-type: none"> Operating efficiency benefits/penalties Capital efficiency benefits/penalties Pre-period capex and opex 	Capital expenditure (Section 6) Operating expenditure (Section 8) Adjustment mechanisms (Section 10) Incentive schemes (Section 11)

2.3 Schedule of payments

Our determination must include a schedule of the amounts required to be paid to the Network Operator.¹⁴ For non-contestable determinations, this payment schedule represents the quarterly amounts to be paid to the Network Operator by the Scheme Financial Vehicle for carrying out a project under the EII Act for the following 5 years.¹⁵ As per our non-contestable guideline, our determination sets out how the schedule of payments is to be calculated from the total revenue.

The quarterly schedule of payments is recovered throughout a regulatory year, compared to the ABBRR which is a single annual amount. Therefore, in conducting our assessment of the schedule of payments, we look to ensure the ABBRR for each regulatory year is equal to the net present value (NPV) of the four quarterly payments corresponding to that year.

¹³ EII Chapter 6A, cl. 6A.5.4(a).

¹⁴ EII Regulation, cl. 52(1).

¹⁵ EII Regulation, cl. 52(2)(c).

Subsequently, our PTRM will also ensure that the total revenue for the regulatory control period is equal to the sum of all quarterly payments for the period, in NPV terms.

The standard formulae which we use to demonstrate the relationship between the quarterly payments and the ABBRR for any given regulatory year is provided in Figure 2.1. The standard approach is that payments occur at the end of each period—that is, at the end of the year for annual payments, or at the end of each quarter for quarterly payments.

Figure 2.1 Schedule of payments

Formula	Equation	where
1.	$q_t^r = \frac{ABBRR_t}{4} \times \frac{(1 + nWACC_t)^{r/4}}{(1 + WACC_t)^{r/4}}$	$t = 1$
2.	$q_t^r = \frac{ABBRR_t}{4} \times \left(\prod_{i=1}^{t-1} \frac{(1 + nWACC_i)}{(1 + WACC_i)} \right) \times \frac{(1 + nWACC_t)^{r/4}}{(1 + WACC_t)^{r/4}}$	$t = 2, 3, 4, 5$

where:

Variable	Represents
t	the relevant regulatory year, with $t = 1$ being the first regulatory year of the regulatory control period
r	the quarter within each particular regulatory year with $r = 1, 2, 3$, or 4 . The timing for the schedule of payments will be decided in the determination.
q_t^r	the quarterly payment amount for quarter r in year t , expressed in nominal dollars
$ABBRR_t$	the annual building block revenue requirement for year t expressed in real dollars, taken from the PTRM reflecting any relevant updates
$WACC_t$	the real vanilla rate of return on capital for year t as determined in our regulatory determination, reflecting any relevant annual return on debt updates.
$nWACC_t$	the nominal vanilla rate of return on capital for year t as determined in our regulatory determination, reflecting any relevant annual inflation and return on debt updates

3 Regulatory asset base

Our approach is to establish separate regulatory asset bases (RABs) for 'as incurred' and 'as commissioned' expenditure. This is to reflect the nature of transmission assets, where there is often a significant timing difference during construction between when costs are incurred (spent) and when the assets are commissioned and providing a service to customers. We therefore make a distinction between when a Network Operator can begin recovering:

- the return on capital building block – a Network Operator may begin recovering a return on its investment at the point where expenditure has been incurred, and
- the return of capital (regulatory depreciation) building block – an asset does not begin depreciating until it is fully built and commissioned and delivering a service.

For simplicity, in this document we refer to the 'as incurred' and 'as commissioned' regulatory asset bases collectively as the RAB. Where we are referring to a specific RAB, we will refer to the 'as incurred' and 'as commissioned' RAB as needed.

In the first regulatory determination for a new transmission infrastructure project, we must make an assessment on an appropriate opening RAB for the project because of the absence of a prior determination with an existing RAB to roll forward. Under normal circumstances, we do not expect such projects to have an opening RAB. However, under the EII framework, a Network Operator may be required to meet a particular contracted commissioning date as set out in the Network Operator Deed for the project and, as such, certain capex (for example, early works) may be incurred prior to the start of the first regulatory control period. As set out in section 6 of this document, in order to include this pre-period capex in an opening RAB, we must determine this expenditure is:¹⁶

- consistent with the relevant authorisation or Ministerial direction
- related to the carrying out of the infrastructure project
- prudent, efficient and reasonable.

Our decision whether to include pre-period capex in the RAB will be based on our assessment on these three principles.

As part of our assessment of the prudent, efficient and reasonable capex to be included in an opening RAB, we also check actual capex amounts against audited data for that year. We generally accept the capex reported in those accounts in establishing the opening RAB.¹⁷ However, there may be instances where adjustments are required to the annual regulatory accounts data.¹⁸

To then establish an opening RAB as at the beginning of the regulatory control period, we escalate the pre-period capex to the beginning of the regulatory control period. As there is no

¹⁶ AER, *Transmission Efficiency Test and revenue determination guideline for NSW non-contestable network infrastructure projects*, July 2024, p. 26.

¹⁷ We will update any estimated capex with actual capex at the time of the next revenue determination.

¹⁸ For example, we make adjustments for movements in provisions if the actual capex amounts reported in the regulatory accounts include capitalised provisions.

prior revenue determination, there has not been recovery of expenditure. Therefore, we do not subtract any depreciation when escalating these costs. To compensate for the financing costs (if any) and the delay in revenue recovery between the time of incurrence of the capex and the start of the regulatory control period, we capitalise these costs by escalating pre-period capex by the nominal WACC.¹⁹

The PTRM used to calculate the ABBRR for a regulatory control period adopts the following method for rolling forward a RAB over the forecast period as set out in EII Chapter 6A:²⁰

- adding forecast capex to the RAB for the relevant year²¹
- subtracting depreciation from the RAB for the relevant year, calculated in accordance with the building block methodology as implemented in our PTRM²²
- subtracting any gross proceeds for asset disposals for the relevant year from capex to be added to the RAB²³
- adding inflation (indexation) adjustment to the opening RAB for the relevant year.²⁴

The opening RAB at the subsequent regulatory control period can be determined using depreciation based either on forecast or actual capex incurred during the regulatory control period.²⁵ To roll forward the RAB using depreciation based on forecast capex, our standard approach is to we would use the forecast depreciation contained in the PTRM for the current regulatory control period, adjusted for actual inflation. If the approach to roll forward the RAB using depreciation based on actual capex was adopted, we would recalculate the depreciation based on actual capex incurred during the regulatory control period.

Our decision on whether to use actual or forecast depreciation must be consistent with the capex incentive objective. This objective is to ensure that increases to the RAB through capex only occur where that capex reasonably reflects the capex criteria.²⁶ In deciding between actual and forecast depreciation, we have regard to:²⁷

- the incentives the service provider has to undertake efficient capex
- substitution possibilities between assets with different lives and the relative benefits of each
- the extent of overspending and inefficient overspending relative to the allowed forecast
- the capex incentive guideline
- the capex factors.

¹⁹ AER, *Amending the Post Tax Revenue Model in NSW roadmap determinations – Guidance note*, November 2024.

²⁰ EII Chapter 6A, cl. S6A.2.4.

²¹ EII Chapter 6A, cl. S6A.2.4(c)(1).

²² EII Chapter 6A, cl. S6A.2.4(c)(2).

²³ EII Chapter 6A, cl. S6A.2.4(c)(3).

²⁴ EII Chapter 6A, cl. S6A.2.4(c)(4).

²⁵ EII Chapter 6A, cl. S6A.2.2B(a).

²⁶ EII Chapter 6A, cl. 6A.5A(b).

²⁷ EII Chapter 6A, cl. S6A.2.2B(c).

3.1 Interrelationships

The RAB is an input into the determination of the return on capital and depreciation (return of capital) building block amounts.²⁸ Factors that influence the RAB will therefore flow through to these building block components and the annual building block revenue requirement. Other things being equal, a higher RAB increases both the return on capital and depreciation amounts.

The RAB is determined by various factors, including:

- the opening RAB (meaning the value of existing assets at the beginning of the regulatory control period)
- net capex²⁹
- depreciation
- indexation adjustment – so the RAB is presented in nominal terms, consistent with the rate of return.

The opening RAB at the start of a regulatory control period depends on the value of existing assets and will depend on actual net capex, actual inflation outcomes and depreciation in the past.

When projected to the end of the regulatory control period, the RAB increases due to both forecast new capex and the indexation adjustment. The size of the indexation adjustment depends on expected inflation (which also affects the nominal rate of return or WACC) and the size of the RAB at the start of each year throughout the regulatory control period.

Depreciation reduces the RAB. The depreciation amount depends on the size of the opening as commissioned RAB, the forecast net capex commissioned during the regulatory control period and depreciation schedules applied to the assets. By convention, the indexation adjustment is also offset against depreciation to prevent double counting of inflation in the RAB and WACC, which are both presented in nominal terms. This reduces the regulatory depreciation building block that feeds into the annual building block revenue requirement.

We maintain the RAB in real terms by indexing for inflation.³⁰ A nominal rate of return (WACC) is multiplied by the opening RAB to produce the return on capital building block.³¹ To prevent the double counting of inflation through the nominal WACC and indexed RAB,³² the regulatory depreciation building block has an offsetting reduction for indexation of the

²⁸ The size of the RAB also impacts the benchmark debt raising cost allowance. However, this amount is usually relatively small and therefore not a significant determinant of revenues overall. As noted above, two separate RABs are calculated for different building blocks.

²⁹ Net capex is gross capex less disposals. The rate of return or WACC also influences the size of the capex. This is because capex is not depreciated in the year it is first incurred, but added to the RAB at the end of the year. Instead, the capex amount is escalated by half-year WACC to arrive at an end of year value. It begins depreciating once the asset is commissioned.

³⁰ EII Chapter 6A, cl. 6A.5.4(b)(1).

³¹ AER, *Rate of return instrument*, March 2024 (amended version 1.2) cl. 1, 3(a) and 36(c).

³² EII Chapter 6A, cl. 6A.5.4(b)(1)(ii).

RAB.³³ Indexation of the RAB and the offsetting adjustment made to depreciation results in a smoother revenue recovery profile over the life of an asset than if it was un-indexed. If the RAB was un-indexed, there would be no need for an offsetting adjustment to the depreciation calculation of total revenue. This alternative approach provides for overall revenues being higher early in the asset's life (as a result of more depreciation being returned to the Network Operator) and lower in the future, producing a steeper downward sloping profile of total revenue.³⁴ The implications of an un-indexed RAB are discussed further in section 5 of this document.

³³ If the asset lives are extremely long, such that the RAB depreciation rate is lower than the inflation rate, then negative regulatory depreciation can emerge. The indexation adjustment is greater than the RAB depreciation in such circumstances. Please also refer to section 0 for further explanation of the offsetting adjustment to the depreciation.

³⁴ A change of approach from an indexed RAB to an un-indexed RAB would result in an initial step change increase in revenues to preserve net present value neutrality.

4 Rate of return

Our assessment approach for the rate of return is a combination of the following matters:

- Overall rate of return (also called the weighted average cost of capital or WACC), which can be disaggregated into the return on equity and return on debt.
- Imputation credits (gamma)
- Expected inflation rate
- Capital raising costs, which is made up of two components: equity raising costs and debt raising costs.

We calculate the return on capital building block based on the as incurred RAB.³⁵ This approach accounts for the nature of transmission assets, allowing Network Operators to recover a return on their investment at the point expenditure has been incurred.

4.1 Rate of Return Instrument

The Rate of Return Instrument (the Instrument), published under the National Electricity Law (NEL), governs our approach to assessing and determining the overall rate of return, including the return on equity and return on debt and its subcomponents, and imputation credits. The EII Regulation requires us to apply the current Instrument made by the AER under the NEL for non-contestable determinations.³⁶

We publish a new Instrument every 4 years that binds all revenue determinations in the subsequent 4 years. At the time of writing, the 2022 Rate of Return Instrument is the current instrument that applies to EII revenue determinations.³⁷ However, we will use the most up to date instrument available at the time of making each EII determination.

The rate of return is composed of the returns the owners of equity (shareholders) and owners of debt (debt holders) expect for their money. The overall required return is a weighted average of the return required on the equity and the return required on the debt used to fund the network investment. The weighting is 60% debt and 40% equity.

We do not set the rate of return with a specific network or project in mind. Instead, we set a benchmark across the sector. This provides incentives for networks to raise their capital at the lowest cost possible. We use information about the regulated networks to decide what a benchmark network might look like.

Our rate of return is set to match the risk of providing network services. This is done by adding an equity risk premium to the base rate to calculate the return on equity and directly estimating the total return on debt inclusive of the base rate and the debt risk premium. The base rate or the risk-free rate is calculated from the rates the Australian Government pays for its long-term (10-year) borrowings.

³⁵ See section 3 above for further discussion on the as incurred and as commissioned RABs.

³⁶ EII Regulation, cl. 47D(4).

³⁷ AER, *Rate of return instrument*, February 2023 (version 1.2 as amended March 2024).

4.1.1 Trailing average portfolio return on debt

In applying the Rate of Return Instrument, we expect a Network Operator to propose a trailing average portfolio approach to calculating the return on debt. Due to the nature of a trailing average, the rate of return instrument provides for a gradual transition into the 10-year trailing average portfolio return on debt. This transition period commences in the first regulatory year for which the return on debt is calculated using a trailing average for the first time for the relevant regulated service and takes 10 years to complete.

For a Network Operator that is newly establishing a RAB under the EII framework, our approach is that in the first year, there is only one return on debt estimate, so it is given 100% weight. In each subsequent year, a new estimate is added to the portfolio and given 10% weight, while the weight on the earliest year reduces by 10%. Eventually, after 10 years, a rolling 10-year window is established. This pattern continues until the full 10-year rolling window is established for the relevant services.

4.2 Expected inflation rate

The treatment of inflation and the setting of the rate of return are foundational in setting regulated revenues. It is important they are set appropriately to promote efficient investment in, and operation of energy networks.

Our approach to estimating the expected inflation is to:

- apply a target inflation horizon that matches the regulatory control period (typically 5 years)
- apply a linear glide-path from the RBA's forecasts of inflation for year 2 to the mid-point of the inflation target band (2.5%) in year 5.

By using a target horizon that is commensurate with the regulatory control period, we ensure that there is consistency between our estimate of expected inflation and the period over which we roll forward the RAB. While we acknowledge that this approach leads to a mismatch with the term of the rate of return and the inflation horizon, we consider this to be less of a concern than aligning with the regulatory control period. This is because of the sustained decline in the required rate of return and the increased difference between 5-year and 10-year inflation expectations due to short-term fluctuations in inflation expectations.³⁸

Applying a glide-path acknowledges that it is likely to take longer than previously for inflation to revert to the mid-point of the RBA's target band following periods of sustained low or high inflation.

Our approach to estimating expected inflation is symmetric and enduring, able to operate across a breadth of market conditions and forecasts and is responsive to changes in market conditions. By using our approach to estimating expected inflation, we ensure that what is calculated results in the best estimate of inflation expectations and is therefore likely to contribute to achieving the objects of the EII Act.³⁹

³⁸ AER, *Final position paper – Regulatory treatment of inflation*, December 2020, pp. 6–7.

³⁹ EII Act, s. 3(1).

4.3 Capital raising costs

4.3.1 Equity raising costs

Equity raising costs are transaction costs incurred when a service provider raises new equity. We provide an allowance to recover an efficient amount of equity raising costs.

We apply a benchmark approach for estimating equity raising costs.⁴⁰ This approach estimates the costs of two means by which a service provider could raise equity—dividend reinvestment plans and seasoned equity offerings. It considers where a service provider's capex forecast is large enough to require an external equity injection to maintain the benchmark gearing of 60%.⁴¹

Our benchmark approach is implemented in the PTRM to estimate equity raising costs. Other elements of our decision act as inputs to this assessment, particularly the level of approved capex and the return on equity. It also requires an estimate of the dividend distribution rate (sometimes called the payout ratio) as an input into calculating equity raising costs. The dividend distribution rate is also estimated when we estimate the value of imputation credits. We consider that a consistent dividend distribution rate should be used when estimating both the value of imputation credits and equity raising costs.

4.3.2 Debt raising costs

Our approach to forecasting debt raising costs compensates for the direct cost of raising debt.⁴² It uses a five-year window of bond data to reflect the market conditions at that time. The method involves calculating the benchmark bond size, and the number of bond issues required to rollover the benchmark debt share (60%) of the capital base.

This approach looks at how many bonds a regulated service provider may need to issue to refinance its debt over a 10-year period. Our standard approach is to amortise the upfront costs that are incurred in raising the bonds using the service provider's nominal vanilla weighted average cost of capital (WACC) over a 10-year amortisation period. This is then expressed in basis points per annum (bppa) as an input into the PTRM.

This rate is multiplied by the debt component of the service provider's projected capital base to determine the debt raising cost allowance in dollar terms. Our approach recognises that part of the debt raising transaction costs such as credit rating costs and bond master program fees can be spread across multiple bond issues, which lowers the benchmark allowance (as expressed in bppa) as the number of bond issues increases.

⁴⁰ For further details see AER, *Draft decision – Transgrid Waratah Super Battery (non-contestable) 2024–29 – Appendix A – Assessment approaches*, September 2023, pp. 11–12; and AER, *Final decision, Powerlink Queensland Transmission determination 2012–13 to 2016–17*, April 2012, pp. 151–152.

⁴¹ AER, *Final decision – Amendment Electricity distribution network service providers – Post-tax revenue model handbook*, January 2015, pp. 15, 16 and 33. The approach is discussed in AER, *Final decision – Powerlink Transmission determination 2012–13 to 2016–17*, April 2012, pp. 151–152.

⁴² For further details see AER, *Draft decision – Transgrid Waratah Super Battery (non-contestable) 2024–29 – Appendix A – Assessment approaches*, September 2023, p. 12; and Chairmont, *Debt Raising Costs*, June 2019.

5 Regulatory depreciation

We determine the regulatory depreciation amount using the PTRM as a part of a Network Operator's annual building block revenue requirement.⁴³ The calculation of depreciation in each year is governed by the value of assets included in the as commissioned RAB at the beginning of the regulatory year, and by the depreciation schedules.⁴⁴

Consistent with our assessment under the NER framework, our approach to calculating depreciation under the EII framework is to employ the straight-line method set out in the PTRM. Regulatory practice has been to assign a standard asset life to each category of assets that represents the economic or technical life of the asset or asset class.⁴⁵ As a starting point, in determining the depreciation for each regulatory year, we must consider whether the proposed depreciation schedules conform to the following key requirements:

- the schedules depreciate using a profile that reflects the nature of the assets or category of assets over the economic life of that asset or category of assets⁴⁶
- the sum of the real value of the depreciation that is attributable to any asset or category of assets over the economic life of that asset or category of assets must be equivalent to the value at which that asset or category of assets was first included in the RAB for the relevant infrastructure project.⁴⁷

To the extent that a Network Operator's proposed depreciation schedules do not conform with the above requirements, we are to determine an alternative schedule that does conform with those requirements.⁴⁸

The regulatory depreciation amount is an output of the PTRM and is calculated using the following inputs to the PTRM:

- the opening commissioned RAB as at the start of the regulatory control period
- the forecast net capex commissioned during the regulatory control period
- the expected inflation rate for the regulatory control period
- the standard asset life for each asset class—used for calculating the depreciation of new assets associated with forecast net capex in the regulatory control period
- the depreciation of existing assets in the opening commissioned RAB as at the start of the regulatory control period—calculated through one of the following methods:
 - a remaining asset life for each asset class

⁴³ EII Chapter 6A, cl. 6A.5.4(a)(3) and 6A.5.4(b)(3).

⁴⁴ EII Chapter 6A, cl. 6A.6.3(a).

⁴⁵ This is the standard practice for the AER, as well as other jurisdictional regulators. See for example, IPART, *Cost building block model template*, June 2014, Table 1; ERAWA, *Final Decision on Proposed Revisions to the Access Arrangement for the Western Power Network*, September 2012, Appendix 2: Target Revenue Calculation (Revenue Model).

⁴⁶ EII Chapter 6A, cl. 6A.6.3(b)(1).

⁴⁷ EII Chapter 6A, cl. 6A.6.3(b)(2).

⁴⁸ EII Chapter 6A, cl. 6A.6.3(a)(2)(ii).

- the standard asset life for each asset class (where no depreciation has yet commenced)
- an output schedule from a separate year-by-year depreciation tracking model
- or as an outcome from a proposed financeability test (discussed further in the next section).

We assess proposed standard asset lives against:

- the standard asset lives of comparable asset classes approved in our recent transmission determinations under the NER and other determinations we make under the EII
- the appropriate economic lives of the assets.

5.1 Financeability

A financeability issue arises when a Network Operator is unable to efficiently obtain finance and raise new capital to carry out the required investment in infrastructure projects. Where a financeability issue has been identified, a Network Operator may submit a financeability request in conjunction with its proposal.⁴⁹ This request would propose adjustments to the depreciation of an asset (or group of assets) to address a financeability issue.⁵⁰

The EII Regulation and EII Chapter 6A allow us to modify a depreciation schedule to differ from the nature of the assets if a Network Operator is unable to efficiently obtain finance to carry out the infrastructure project. In assessing whether to modify depreciation schedules, we must be satisfied that it is reasonably necessary to ensure:

- the Network Operator is capable of efficiently obtaining finance to carry out the network infrastructure project,⁵¹ and
- the revenue determination is consistent with the objective of the EII Act to improve electricity supply and co-ordinate and encourage investment, as per sections 3(1)(a)-(c) of the EII Act.⁵²

The criteria for how we assess a financeability request under the EII Act is consistent with the approach set out in the latest version of our Financeability Guideline for NER determinations.⁵³ Our assessment process consists of determining whether a financeability issue exists for the network infrastructure project, and if so, whether the Network Operator's proposed financeability adjustments are appropriate in resolving the financeability issue.

In considering a Network Operator's financeability request for the proposed network infrastructure project, we apply a 'financeability test'.⁵⁴ Our financeability test calculates a Network Operator's financeability position with and without the proposed expenditure for the network infrastructure project. By comparing the financeability positions between the two

⁴⁹ EII Chapter 6A, cl. 6A.6.3A(b)(2).

⁵⁰ EII Chapter 6A, cl. 6A.6.3A(b)(4).

⁵¹ EII Regulation 2021 cl. 47D(3)(b); EII Chapter 6A cl. 6A.6.3(d)(2).

⁵² EII Regulation 2021 cl. 47D(3)(a); EII Chapter 6A cl. 6A.6.3(d)(1).

⁵³ As of writing, it is AER, *Financeability guideline*, November 2024.

⁵⁴ EII Chapter 6A cl. 6A.6.3(i)-(l).

scenarios, we assess whether there is a deterioration in the Network Operator's financial metrics which would result in a financeability issue. The model to perform a financeability test is published alongside our Financeability Guideline. The assessment involves examining information used to justify the financeability request including PTRMs and, where relevant, concessional finance information.

Our assessment of the key financial metrics involves examining the whole portfolio of a Network Operator's regulated assets (NER and EII assets), rather than calculated individually for each proposal. The financeability test will also dictate the target of any proposed financeability adjustment. That is, whether to return the Network Operator to its previous financeability position or a predetermined financeability position consistent with the Financeability Guideline.

Subject to a financeability issue being identified, we would then consider the Network Operator's proposed approach to amending the depreciation schedule. This may include having regard to (among other factors):

- depreciation of the project's capex being calculated on an as incurred or as commissioned basis (since depreciation is principally calculated on an as commissioned basis)⁵⁵
- amending the standard or remaining asset lives of the project's capex
- allocating a proportion of capex from across its regulatory asset base to a separate financeability asset class for accelerated depreciation.

The PTRM accounts for modified depreciation schedules for the purposes of financeability with a section for the Network Operator to record a 'financeability life' for up to 5 asset classes. The annual depreciation for these asset classes is determined as part of our financeability test with regards to the amount of additional cashflow required for each year to resolve any identified financeability concerns. Our assessment will consider the appropriate amount of assets that are to be allocated to the financeability asset classes that have an accelerated life.

Further details of how a financeability test is conducted and the information required to demonstrate a financeability issue are available in our Financeability Guideline.

5.2 Interrelationships

The regulatory depreciation amount is a building block component of the annual building block revenue requirement.⁵⁶ Higher (or quicker) depreciation leads to higher revenues over the regulatory control period. It also causes the RAB to reduce more quickly (excluding the

⁵⁵ See section 3 of this document.

⁵⁶ The PTRM distinguishes between straight-line depreciation and regulatory depreciation, with regulatory depreciation being straight-line depreciation minus the indexation adjustment.

impact of future capex). This reduces the return on capital amount, although this impact is usually smaller than the increased depreciation amount in the short to medium term.⁵⁷

Ultimately, however, a Network Operator can only recover the capex it has incurred on assets once. The depreciation amount reflects how quickly the RAB is being recovered, and it is based on the asset lives used in the depreciation calculation. It also depends on the size of the opening RAB and the amount of forecast capex. Any increase in these factors also increases the depreciation amount.

The RAB has to be maintained in real terms, meaning the RAB must be indexed for expected inflation.⁵⁸ The return on capital building block has to be calculated using a nominal rate of return applied to the opening RAB.⁵⁹ As noted in section 2 of this document, the total annual building block revenue requirement is calculated by adding the return on capital, depreciation, operating expenditure (opex), tax, and revenue adjustments building blocks. Because inflation on the RAB is accounted for in both the return on capital—based on a nominal rate—and the depreciation calculations—based on an indexed RAB—an adjustment must be made to the revenue requirement to prevent compensating the Network Operator twice for inflation.

To avoid this double compensation, we make an adjustment by subtracting the annual indexation gain on the RAB from the calculation of total revenue.⁶⁰ Our standard approach is to subtract the indexation of the opening RAB—the opening RAB for a year multiplied by the expected inflation for the year—from the RAB depreciation. The net result of this calculation is referred to as regulatory depreciation.⁶¹ Regulatory depreciation is the amount used in the building block calculation of total revenue to ensure that the revenue equation is consistent with the use of a RAB, which is indexed for inflation annually. Figure 5.1 shows where the inflation components are included in the building block costs.

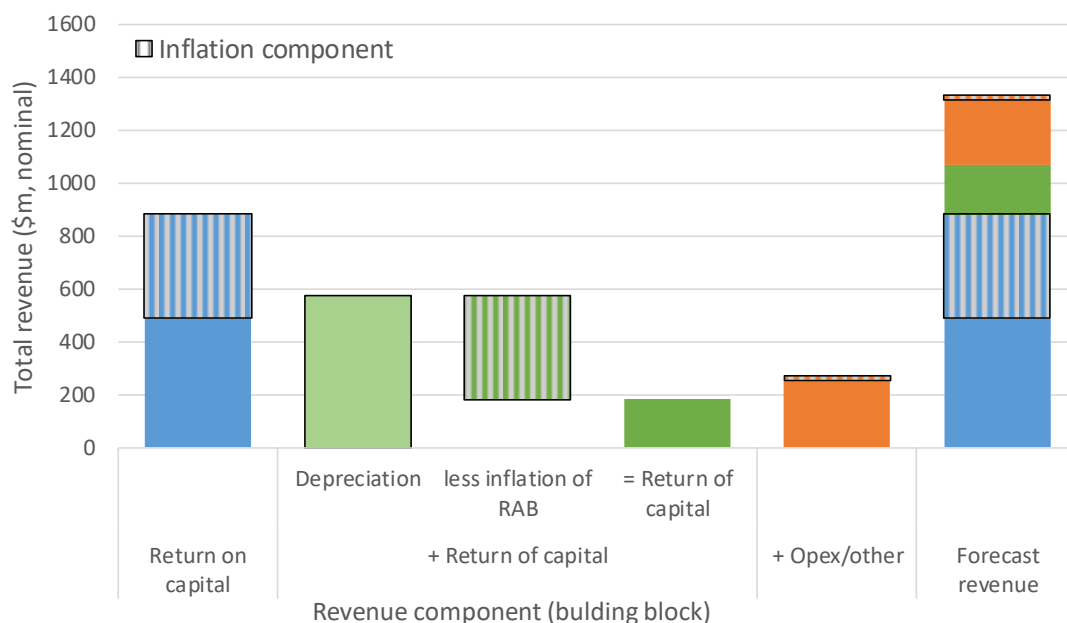
⁵⁷ This is generally the case because the reduction in the RAB amount feeds into the higher depreciation building block, whereas the reduced return on capital building block is proportionate to the lower RAB multiplied by a nominal rate of return.

⁵⁸ EII Chapter 6A, cl. 6A.5.4(b)(1) and S6A.2.4(c)(4).

⁵⁹ AER, *Rate of return instrument*, paragraphs 1, 3(a) and 36(c), February 2023 (version 1.2 amended March 2024) and EII Regulation, cl. 47D(4).

⁶⁰ EII Chapter 6A, cl. 6A.5.4(b)(1)(ii).

⁶¹ If the asset lives are extremely long, such that the RAB depreciation rate is lower than the inflation rate, then negative regulatory depreciation can emerge. The indexation adjustment is greater than the straight-line depreciation in such circumstances.

Figure 5.1 Inflation components in revenue building blocks – example

Source: AER analysis.

This approach produces the same total revenue requirement and RAB as if a real rate of return had been used in combination with an indexed RAB. Under an alternative approach where a nominal rate of return was used in combination with an un-indexed (historical cost) RAB, no adjustment to the depreciation calculation of total revenue would be required. This alternative approach produces a different time path of total revenue compared to our standard approach. In particular, overall revenues would be higher early in the asset's life (as a result of more depreciation being returned to the Network Operator) and lower in the later years of the asset's life—producing a steeper downward sloping profile of total revenue.⁶² Under both approaches, the total revenues being recovered are in present value neutral terms—that is, returning the initial cost of the RAB.

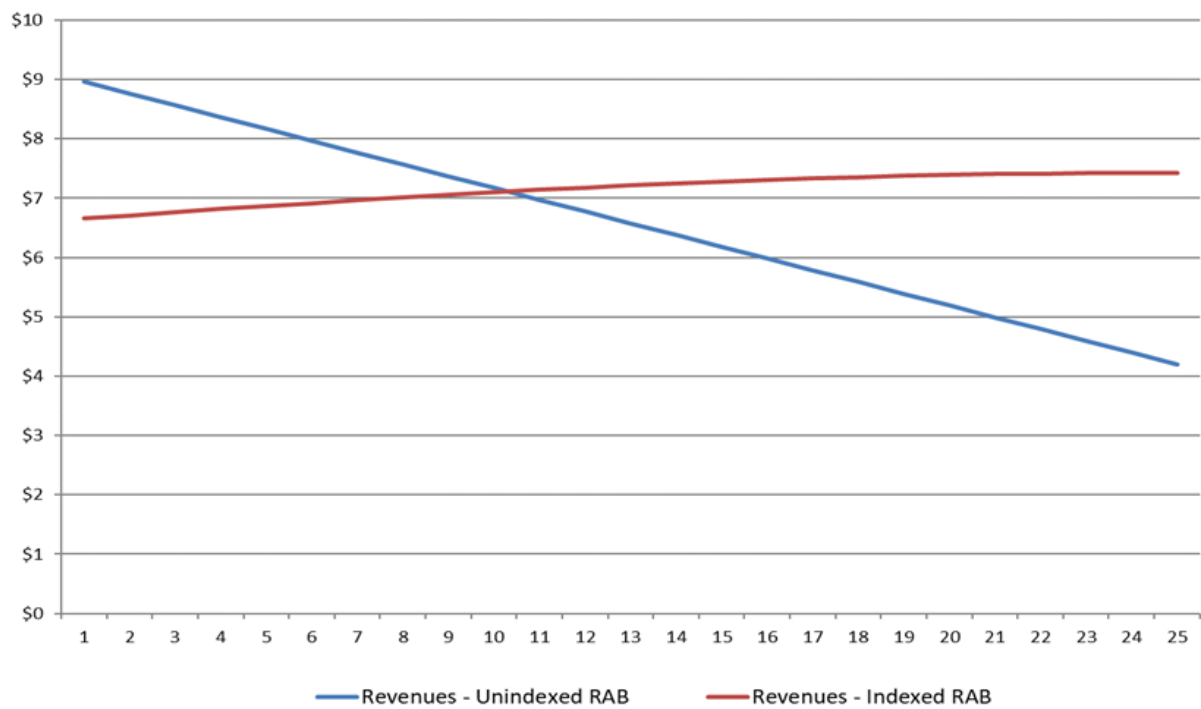
Figure 5.2 shows the recovery of revenue under both approaches using a simplified example.⁶³ Indexation of the RAB and the offsetting adjustment made to depreciation results in a smoother revenue recovery profile over the life of an asset than if the RAB was un-indexed. The indexation of the RAB also reduces price shocks when the asset is replaced at the end of its life.⁶⁴

⁶² A change of approach from an indexed RAB to an un-indexed RAB would result in an initial step change increase in revenues to preserve net present value neutrality.

⁶³ The example is based on the initial cost of an asset of \$100, a standard economic life of 25 years, a real rate of return of 2.5%, expected inflation of 2.4% and nominal rate of return of 4.96%. Other building block components such as opex, tax and capex are ignored for simplicity as they would affect both approaches equally.

⁶⁴ In year 26, the revenues in the example for the un-indexed approach would jump from about \$4 to \$9, assuming the asset is replaced by an asset of roughly similar replacement cost as the initial asset. In contrast, in the same circumstances, the indexed approach would see revenues stay at roughly \$7.

Figure 5.2 Revenue path example – indexed vs un-indexed RAB (\$ nominal)



Source: AER analysis.

6 Capital expenditure

A revenue proposal must include the total forecast capital expenditure (capex) for the relevant regulatory control period.⁶⁵ As under the NER framework, our role under the EII framework is to decide whether to accept a Network Operator's capex forecast for the non-contestable REZ project. We are to form a view about whether the Network Operator's forecast of total capex for the network infrastructure project reasonably reflects the capex criteria.⁶⁶ In doing so, we must have regard to the capex factors specified in EII Chapter 6A⁶⁷ and the principles for the regulator outlined in the EII Regulation.⁶⁸ We must determine whether a Network Operator's forecast capex (including pre-period capex) is prudent, efficient, and reasonable.

The non-contestable guideline sets out how we will apply the Transmission Efficiency Test⁶⁹ and the capex objectives, criteria and factors that we consider when determining the total forecast capex a Network Operator may recover for a network infrastructure project.⁷⁰ We are required to make our non-contestable revenue determinations in accordance with our non-contestable guideline.⁷¹

We will also have regard to our latest expenditure forecast assessment guideline when we assess a Network Operator's revenue proposal and determine the forecast capex under the EII Act.⁷² However, we may modify our assessment approach where we identify the need to do so, including to reflect differences between the EII framework and the NER framework. Should we materially modify our approach, we will set out these modifications in our determination.

Our determination is based on the information before us. In general, the information we have regard to includes:

- the Network Operator's revenue proposal
- responses to our information requests
- stakeholder submissions, including from the Network Operator, in response to the Network Operator's revenue proposal or our preliminary position paper.

For a Network Operator to demonstrate its proposal is prudent, efficient and reasonable we generally expect the proposal to demonstrate the overall forecast expenditure will result in the lowest sustainable cost (in present value terms) to meet the legal obligations of the Network Operator. For non-contestable projects in the EII framework, key outputs that the Network Operator must deliver will be determined by the Infrastructure Planner. Our

⁶⁵ EII Chapter 6A, cl. 6A.6.7(a).

⁶⁶ EII Chapter 6A, cl. 6A.6.7(c).

⁶⁷ EII Chapter 6A, cl. 6A.6.7(e).

⁶⁸ EII Chapter 6A, cl. 6A.6.7(e)(13A); EII Act, s. 37, EII Regulation, cl. 46.

⁶⁹ EII Act, s. 38(4).

⁷⁰ AER, *Transmission Efficiency Test and revenue determination guideline for NSW non-contestable network infrastructure projects*, July 2024.

⁷¹ EII Regulation, cl. 47A(2).

⁷² AER, *Expenditure Forecast Assessment Guidelines for Electricity Transmission*, October 2024, pp. 16–20.

consideration of the timing, scope, scale and level of expenditure in the Network Operator's proposal will have regard to how it aligns with the Infrastructure Planner's requirements and the Consumer Trustee's authorisation where relevant. Where applicable, we will also apply the assessment techniques described in the expenditure forecast assessment guideline.⁷³ In assessing whether the forecast capex is reasonable, we will assess whether the costs, and the calculation of those costs, are based on reason or reasonably open based on the facts before us.⁷⁴

We intend to assess forecast capex proposals through a combination of top-down and bottom-up modelling of efficient expenditure.⁷⁵ Where a Network Operator does not provide sufficient economic justification for its proposed expenditure, we will determine a substitute estimate of what we consider to be the prudent, efficient, and reasonable level of forecast capex.

Stakeholders can also find examples of the implementation of our assessment approach in prior AER decision documents for non-contestable REZ network infrastructure projects.⁷⁶

The following sections provide further information on how we assess the 'reasonable' criterion, pre-period costs, and risk costs.

6.1 Assessment of reasonableness

Under the EII framework, the AER is to calculate the prudent, efficient and reasonable capital costs for development and construction of the network infrastructure project, which is referred to as the transmission efficiency test.⁷⁷ Compared to the NER framework, the term 'reasonable' has been added to our assessment of expenditure proposals. The assessment of reasonableness is linked to the assessment of prudence and efficiency.

The overarching 'propose and respond' model used in the EII framework (and the NER framework) means that we assess revenue proposals based on the information provided by the Network Operator, including the case put forward on why a proposal is considered reasonable. In assessing whether a proposal, or an element of a proposal, is reasonable given the circumstances of the project, we would have regard to the extent to which sound judgment, explanation and best practice is applied to the relevant facts, assumptions and evidence to arrive at logical and supported conclusions. We would consider information provided to us by the Network Operator regarding what limitations or constraints were present in the development of the cost estimate and how that adversely impacted the proposal, such as the accuracy of the estimate, project delivery timeframes or prudence and efficiency of the costs. Examples of limitations could include restrictions on planning

⁷³ AER, *Expenditure Forecast Assessment Guidelines for Electricity Transmission*, October 2024, pp. 11–14.

⁷⁴ AER, *Transmission Efficiency Test and revenue determination guideline for NSW non-contestable network infrastructure projects*, July 2024, p. 25.

⁷⁵ AER, *Expenditure Forecast Assessment Guidelines for Electricity Transmission*, October 2024, p. 16.

⁷⁶ For example, see AER, *Draft decision – Transgrid Waratah Super Battery (non-contestable) 2024–29 – Appendix A – Assessment approaches*, September 2023.

⁷⁷ EII Act, s. 38(4).

activities,⁷⁸ and short delivery timeframes required by relevant government policy. We would consider the level of control Network Operators had over the situation including any preventive or mitigative measures that would reasonably be in place to reduce the risk of the adverse impact.

We consider that our interpretation of 'reasonable' depends on the assessment of the specific context of the project and how the Network Operator justifies the reasonableness of its proposal. The onus is on the Network Operator to explain how its proposal is reasonable and to justify its case. This general approach enables us to consider constraints or limitations specific to that project and its impacts on the project, without being overly prescriptive. We consider that our assessment of the reasonableness of a proposal is closely linked to the standard prudence and efficiency criteria. That is, we consider whether the forecast capex is prudent and efficient given the circumstances of the Network Operator and we have regard to the Network Operator's actions taken to identify and minimise adverse impacts that may arise from the uncertainty.

As an example, consider a non-contestable REZ network infrastructure project that is required to be delivered in a certain limited timeframe (determined by the Infrastructure Planner) in order to deliver benefits to consumers under the NSW Electricity Infrastructure Roadmap.⁷⁹ Our assessment of reasonableness considers any relevant aspects of the proposal (including holistic assessment of the proposal) required to support the timely delivery of the infrastructure project to maximise the consumer benefits identified as part of the Roadmap. In this context, the Network Operator may claim that while its cost estimates were not as accurate as they could be, we should consider what the limitations were and the measures the Network Operator adopted to mitigate cost inaccuracies. This could be informed by independent verification of the proposal or best practice approaches adopted. It would be a factor in favour of us considering the proposal as reasonable overall if it is demonstrable that the accuracy of the cost estimates was affected by the project circumstances, or was the result of the constraints imposed by timeliness of delivery.

Our consideration of the reasonableness of costs also applies to opex.

6.2 Pre-period costs

It is possible that a Network Operator may incur costs related to the carrying out of a network infrastructure project prior to the first regulatory period commencing. For these pre-period costs to be factored into amounts payable to a Network Operator, they must be included in a Network Operator's revenue proposal for the initial regulatory period. The Network Operator will need to provide justification that the costs are:⁸⁰

- consistent with the relevant authorisation or Ministerial direction

⁷⁸ For example, some planning activities that require engagement with third parties may be limited due to confidentiality restrictions during the project procurement process before the Network Operator is subject to authorisation under the EII Act ss. 31, 32 and 36(2).

⁷⁹ See <https://www.energy.nsw.gov.au/nsw-plans-and-progress/major-state-projects/electricity-infrastructure-roadmap>

⁸⁰ AER, *Transmission Efficiency Test and revenue determination guideline for NSW non-contestable network infrastructure projects*, July 2024, p. 26.

- related to the carrying out of the network infrastructure project
- prudent, efficient and reasonable.

We will review the information provided by the Network Operator on the pre-period costs before deciding whether to include them in our determination. We expect most pre-period costs to be capital expenditures but will review any operating expenditures proposed to be recovered.

6.3 Risk costs

The EII Act and EII Regulation require that a revenue determination include amounts for other risks for which the Network Operator is not already compensated.⁸¹ This includes risk costs.

We have based our regulatory assessment of risk costs for non-contestable EII revenue determinations on our assessment approach for actionable Integrated System Plan (ISP) projects under the NER framework.⁸²

Consumers should not bear the cost of risks where a Network Operator has the ability to avoid and/or control these costs. However, there may be significant external factors that can increase the cost of a large infrastructure project, which the Network Operator does not have control over. In these cases, inclusion of a probabilistic risk cost—where they are not already included in forecast expenditure—can be a prudent way to account for these risks. As under the NER framework, we do not provide a project risk allowance that completely covers the eventuality of all consequential costs being incurred. Rather, we may provide a proportion of coverage in recognition of the probability of these risks, given that the occurrence and severity is uncertain. In addition, the risk cost allowance is not intended to completely de-risk a project because investment projects, including REZ projects, are inherently uncertain, and financing arrangements account for this. Our guidance note on the regulation of actionable ISP projects outlines the information and justification we expect a Network Operator to provide for us to determine if the proposed risk cost is prudent and efficient.⁸³

In summary, our guidance note on the regulation of actionable ISP projects states that we can accept risk costs where the proponent clearly justifies the inclusion of the risk costs. As such, we consider it is appropriate to apply the same approach for non-contestable REZ network infrastructure projects, and we would expect the Network Operator to:⁸⁴

- comprehensively and transparently identify and define the different project risks
- identify and justify reasonable and realistic potential cost impacts (including potential cost reductions) and likelihoods of occurrence, accounting for controls or mitigations
- show that the residual consequential cost is weighted to reflect the likelihood of occurrence

⁸¹ EII Act, s. 38(2); EII Regulation, cl. 50A.

⁸² AER, *Guidance note: Regulation of actionable ISP projects*, March 2021, pp. 16–20.

⁸³ AER, *Guidance note: Regulation of actionable ISP projects*, March 2021, pp. 16–20.

⁸⁴ AER, *Guidance note: Regulation of actionable ISP projects*, March 2021, p. 22.

- show why the risk cannot be efficiently transferred, avoided or mitigated
- show that the cost of mitigation measures exceeds the expected weighted cost impact should the risk eventuate
- show that risk will be allocated to the party that is best placed to manage that risk.

7 Social licence

This section explains our assessment approach to social licence for REZ non-contestable projects. Where appropriate and practicable, our approach to assessment of social licence for REZ non-contestable projects is based on the principles set out in the:

- the Directions paper on social licence for electricity transmission projects⁸⁵
- the Regulatory investment test for transmission application guideline.⁸⁶

Social licence is continued support and acceptance from a community that will be affected by an organisation, its activities or projects.⁸⁷ Social licence is linked to general awareness and acceptance of a project within its community and is directly linked to a project's credibility. Successful projects have clear strategies and programs to form good relationships that are built over time, and proponents of successful projects put into place the appropriate processes and resources to deliver the project.⁸⁸

As set out in our Social Licence Directions Paper, our position is that the costs for achieving social licence are a legitimate and necessary business expense, and that these expenses should be recoverable so long as they are justified.⁸⁹ Costs related to social licence are justified if they are an efficient way to manage the risk of not gaining community acceptance or support relative to other means. Social licence costs may include community benefit sharing programs, minor route or design adjustments, legislated additional landholder payments or the cost of community engagement.

Social licence may be promoted by early and continued engagement with community stakeholders. Community stakeholders are those who are reasonably expected to be affected by the development of the project (including local landowners, local council, local community members, local environmental groups and traditional owners).⁹⁰ In our assessment of social licence costs, we would consider:

- the necessity of the social licence activity, in order to mitigate the risk of not gaining community acceptance or support. We would consider evidence of the baseline level of community support, why the social licence activity is necessary and what other options the Network Operator considered to manage this risk.
- the explanation of the basis of any social licence costs or activities such as reference to best practice from a reputable, independent and verifiable source, or community engagement to inform the basis of the social licence activities.
- the identification of target community stakeholders who would reasonably be expected to be affected by the development plan. This includes consideration of engagement plans or similar documentation that provides information on the stakeholders, timeline of

⁸⁵ AER, *Directions paper - Social licence for electricity transmission projects*, October 2023.

⁸⁶ AER, *Regulatory investment test for transmission – Application guideline*, November 2024.

⁸⁷ AER, *Regulatory investment test for transmission – Application guideline*, November 2024, p. 20.

⁸⁸ AER, *Regulatory investment test for transmission – Application guideline*, November 2024, p. 20.

⁸⁹ AER, *Directions paper - Social licence for electricity transmission projects*, October 2023, p. 9.

⁹⁰ AER, *Regulatory investment test for transmission – Application guideline*, November 2024, p. 67.

engagement activity, articulation of how the engagement is intended to meet community expectations to address any relevant concerns, and any related measures.

- the explanation and justification of how social licence expenditure will improve community acceptance.
- the genuine engagement demonstrated by plans of how these social licence activities will be considered and how it informs the design and evolution of the project. For example, what the engagement is intended to inform and what input is expected (submissions/consultations to identify credible network route options).

There are currently several state-based legislated schemes that require payments to be made to eligible landholders who host new significant transmission infrastructure.⁹¹ Our assessment of social licence will include consideration of these payments to avoid duplication of spending where appropriate.

⁹¹ AER, *Regulatory investment test for transmission – Application guideline*, November 2024, pp. 109–110.

8 Operating expenditure

Operating expenditure (opex) refers to operating, maintenance and other non-capital expenses. Forecast opex for regulated network services is one of the building blocks we use to determine a Network Operator's total revenue cap.⁹² Consistent with Chapter 6A of the NER, our role is to decide whether to accept a Network Operator's opex forecast for the non-contestable REZ network infrastructure project. We are to form a view about whether a Network Operator's forecast of total opex reasonably reflects the opex criteria.⁹³

In doing so, we must have regard to the opex factors specified in EII Chapter 6A⁹⁴ and the principles for the regulator outlined in the EII Regulation.⁹⁵ Specifically, we must determine whether a Network Operator's forecast opex (including pre-period opex) is prudent, efficient, and reasonable to comply with all applicable regulations, meet or manage the expected demand for regulated network services, and maintain the safety of its network (the opex objectives).

Consistent with our approach to capex, we will have regard to our latest expenditure forecast assessment guideline⁹⁶ and our non-contestable guideline⁹⁷ when assessing a Network Operator's revenue proposal and determine an opex allowance under the EII Act. We are required to make our non-contestable revenue determinations in accordance with our non-contestable guideline.⁹⁸ Conversely, while our expenditure forecast assessment guideline provides for greater regulatory predictability, transparency and consistency, it is not mandatory. We may modify our assessment approach where we identify the need to do so, including to reflect differences between the EII framework and the NER framework. Should we materially modify our approach, we will set these modifications out in our determination.

Further, we take into consideration interrelationships between opex and the other building block components of our decision.⁹⁹

8.1 Initial revenue determination

In our non-contestable guideline, we outline our approach for establishing base opex for the initial revenue determination.¹⁰⁰ In an initial determination for a network infrastructure project, we will have no base year from a preceding regulatory control period on which to assess revealed opex. In establishing a base from which to assess a Network Operator's proposed opex allowance, we will rely on a bottom-up forecasting approach. During this bottom-up

⁹² EII Chapter 6A, cl. 6A.5.4(a)(6).

⁹³ EII Chapter 6A, cl. 6A.6.6(c).

⁹⁴ EII Chapter 6A, cl. 6A.6.6(e).

⁹⁵ EII Regulation, cl. 46.

⁹⁶ AER, *Expenditure Forecast Assessment Guidelines for Electricity Transmission*, October 2024.

⁹⁷ AER, *Transmission Efficiency Test and revenue determination guideline for NSW non-contestable network infrastructure projects*, July 2024.

⁹⁸ EII Regulation, cl. 47A(2).

⁹⁹ NEL, s. 16(1)(c).

¹⁰⁰ AER, *Transmission Efficiency Test and revenue determination guideline for NSW non-contestable network infrastructure projects*, July 2024, pp. 29–30.

assessment process, we will consider the following factors in addition to our usual assessment approach:

- Input costs, metrics and benchmarks associated with any other networks that the Network Operator or other similar businesses may own and operate (if applicable)
- Any elements of a contestable project that may impact the relevant non-contestable project's opex costs
- The outcome of any detailed project review, if required
- Our approach to setting regulated opex for other network projects with similar characteristics (e.g. growth projects undertaken by Network Operators).

We expect that a Network Operator's initial proposed opex allowance should at a minimum adopt the general expectations set out in our expenditure forecast assessment guideline and be in accordance with the approved cost allocation methodology for the Network Operator, and should identify and quantify:

- the number and cost of permanent and casual staff engaged to operate and/or maintain EII regulated network assets either exclusively or on a pro rata basis as appropriate
- the cost of external contractors, consultants and other service providers providing operating and/or maintenance services in relation to the regulated network assets
- the cost-of-service contracts, insurance and other ongoing expenses exclusively associated with the EII regulated network assets.

After our initial determination has established the efficient base opex via the bottom-up approach, we consider our standard opex assessment approach to be the appropriate method for forecasting opex in all subsequent regulatory periods. Our standard approach is to assess a Network Operator's forecast opex over the regulatory control period at a total level, rather than to assess individual opex cost categories. To do so, we develop an alternative estimate of total opex using a top-down forecasting method, known as the base-step-trend approach.¹⁰¹

8.2 Our base-step-trend assessment approach

In our base-step-trend assessment approach, we compare our alternative estimate with the Network Operator's total opex forecast to form a view on the reasonableness of its proposal. If we are satisfied the Network Operator's forecast reasonably reflects the opex criteria, we accept the forecast.¹⁰² If we are not satisfied, we substitute the Network Operator's forecast with our alternative estimate that we are satisfied reasonably reflects the opex criteria.¹⁰³ In making this decision, we take into account the reasons for the difference between our alternative estimate and the Network Operator's proposal, and the materiality of the difference.

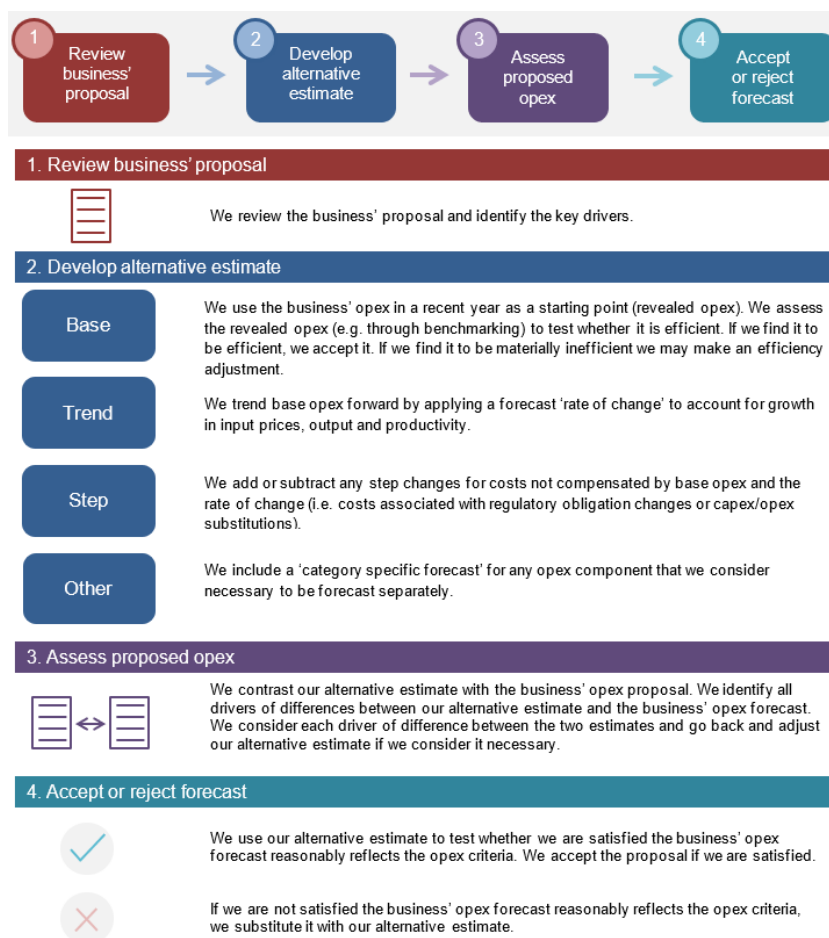
¹⁰¹ A top-down approach forecasts total opex at an aggregate level, rather than forecasting individual costs or cost categories to build a total opex forecast from the bottom up.

¹⁰² NER, cl. 6A.6.6(c).

¹⁰³ NER, cl. 6A.6.6(d) and 6A.14.1(3)(ii).

Figure 8.1 shows an overview of our standard base-step-trend opex assessment approach.

Figure 8.1 Our standard opex assessment approach (base-step-trend)



Using the base-step-trend assessment approach, we will assess forecast opex in year t as:

$$Opex = \prod_{i=1}^t (1 + rate\ of\ change_i) \times (A_f^* - efficiency\ adjustment) \pm step\ changes_t$$

where:

- $rate\ of\ change_i$ is the annual percentage rate of change in year i
- A_f^* is the estimated actual opex in the final year of the preceding regulatory control period
- $efficiency\ adjustment$ is the difference between efficient opex and deemed final year opex
- $step\ changes_t$ is the determined step change in year t .

Under this assessment approach the product of the annual rates of change accounts for changes in real prices, output growth and productivity in the forecast regulatory control period. The addition of step changes accounts for any other efficient costs not captured in base opex or the rate of change.

We prefer a base-step-trend approach to assessing most opex categories. However, when appropriate, we may assess some opex categories using other forecasting techniques, some of which are outlined in our expenditure forecast assessment guideline.¹⁰⁴

8.2.1 Base opex

The 'revealed cost' approach is our preferred approach to assessing base opex. If actual expenditure in the base year reasonably reflects the opex criteria, we will set base opex equal to actual expenditure for those cost categories forecast using the revealed cost approach. We will use a combination of techniques to assess whether base opex reasonably reflects the opex criteria. We will likely assess base year expenditure exclusive of any movements in provisions that occurred in that year. Our expenditure forecast assessment guideline details the information we will require to assess base opex.¹⁰⁵

We intend to not rely on the expenditure of a particular base year when we identify material inefficiencies in that expenditure. In this case, we may adjust the base year or substitute an appropriate base year. When determining whether to adjust or substitute base year expenditure, we will also have regard to whether rewards or penalties accrued under the EBSS will provide for the Network Operator and its customers to fairly share efficiency gains or losses.

The EBSS requires an estimate of actual opex for the final year, which we do not typically know at the time of the final determination. Expressing estimated final year expenditure in the following form allows the Network Operator to retain incremental efficiency gains made after the base year through the EBSS carryover. To the extent the assumption is incorrect the Network Operator will still retain incremental efficiency gains, but they will be retained through the opex forecast rather than EBSS carryovers. The same estimate will be used to calculate carryovers under the EBSS. Accordingly, we will estimate final year expenditure to be equal to:

$$A_f^* = F_f - (F_b - A_b) + \text{non recurrent efficiency gain}_b$$

where:

- A_f^* is the best estimate of actual opex for the final year of the preceding regulatory control period
- F_f is the determined opex allowance for the final year of the preceding regulatory control period
- F_b is the determined opex allowance for the base year
- A_b is the amount of actual opex in the base year
- $\text{non recurrent efficiency gain}_b$ is the non-recurrent efficiency gain in the base year

¹⁰⁴ AER, *Expenditure Forecast Assessment Guidelines for Electricity Transmission*, October 2024, pp. 11–15.

¹⁰⁵ AER, *Expenditure Forecast Assessment Guidelines for Electricity Transmission*, October 2024, pp. 26–29.

8.2.2 Rate of change (trend)

We will assess opex for the forecast regulatory control period by applying an annual rate of change for each year of the forecast regulatory control period. The annual rate of change for year t will be:

$$\text{Rate of change}_t = \text{output growth}_t + \text{real price growth}_t - \text{productivity}_t$$

Output growth

Forecast output growth is the forecast annual increase in output. The output measures used should be the same measures used to forecast productivity growth. The output measures should:

- align with the EII operating expenditure objectives¹⁰⁶
- reflect services provided to customers
- be significant.

If the productivity measure includes economies of scale, then forecast output growth should not be adjusted for economies of scale.

Real price growth

Forecast real price growth is the forecast annual increase in the real price of inputs. The real price measures used should be the same measures used to forecast productivity growth. Our preferred approach to assessing labour price changes over the forecast period is to use the wage price index (WPI) published by the Australian Bureau of Statistics (ABS). The labour price measure should be consistent with the treatment of forecast productivity change. If the productivity measure includes labour productivity, then real price growth should not be adjusted to remove labour productivity.

Productivity

In assessing forecast productivity, we will likely consider (but may not be limited to):

- forecast output growth
- forecast changes in Network Operator specific business conditions
- forecast technological change
- how close the Network Operator under consideration is to the efficient frontier in our benchmarking analysis
- historical productivity performance
- any difference between industry average productivity change and the rate of productivity change at the efficient frontier.

8.2.3 Step changes

Step changes may be added (or subtracted) for any other costs not captured in base opex or the rate of change that are required for forecast opex to meet the opex criteria. Our approach

¹⁰⁶ EII Chapter 6A, cl. 6A.6.6. (a).

is to separately assess the prudence and efficiency of forecast cost increases or decreases associated with new regulatory obligations and capex/opex trade-offs. For capex/opex trade-off step changes, we will assess whether it is prudent and efficient to substitute capex for opex or vice versa. For step changes arising from new regulatory obligations, we will assess:

- whether there is a binding (that is, uncontrollable) change in regulatory obligations that affects the efficient forecast expenditure
- when this change event occurs and when it is efficient to incur expenditure to comply with the changed obligation
- what options were considered to meet the change in regulatory obligations
- whether the option selected was an efficient option—that is, whether the Network Operator took appropriate steps to minimise its expected cost of compliance from the time there was sufficient certainty that the obligation would become binding
- when the Network Operator can be expected to make the changes to meet the changed regulatory obligations, including whether it can be completed over the regulatory control period
- the efficient costs associated with making the step change
- whether the costs can be met from existing regulatory allowances or from other elements of the expenditure forecasts.

We will assess changes in regulatory obligations in the context of the core category they affect, which will ensure consistency across Network Operators. Accordingly, a Network Operator must allocate step changes arising from regulatory obligations to our expenditure categories (for example, augmentation, replacement, vegetation management).

We will not allow step changes for any short-term cost to a Network Operator of implementing efficiency improvements in expectation of being rewarded through expenditure incentive mechanisms such as the EBSS. We expect a Network Operator to bear such costs and thereby make efficient trade-offs between bearing these costs and achieving future efficiencies.

Additionally, step changes should not double count costs included in other elements of the opex forecast, including the costs of:

- increased volume or scale compensated through the output measure in the rate of change
- increased regulatory burden over time, which forecast productivity growth may already account for. We will only approve step changes in costs if they demonstrably do not reflect the historic 'average' change in costs associated with regulatory obligations. We will consider what might constitute a compensable step change at each determination, but our starting position is that only exceptional events are likely to require explicit compensation as step changes. Similarly, forecast productivity growth may also account for the cost increases associated with good industry practice
- discretionary changes in inputs. Efficient discretionary changes in inputs (not required to increase output) should normally have a net negative impact on expenditure.

If it is efficient to substitute capex with opex, a step change may be included for these costs (capex/opex trade-offs).

8.3 Interrelationships

In assessing a Network Operator's total forecast opex, we take into account other components of its proposal and our determination, including:

- the efficiency benefit sharing scheme (EBSS) carryover—the level of opex used as the starting point to forecast opex (the final year of the current regulatory control period) should be the same as the level of opex used to forecast the EBSS carryover. This consistency ensures that the Network Operator is rewarded (or penalised) for any efficiency gains (or losses) it makes in the final year the same as it would for gains or losses made in other years
- the operation of the EBSS in the previous regulatory control period, which provided the Network Operator an incentive to reduce opex in the base year
- the impact of cost drivers that affect both forecast opex and forecast capex. For instance, forecast labour price growth affects forecast capex, and our forecast price growth used to estimate the rate of change in opex
- the approach to assessing the rate of return, to ensure there is consistency with our determination of debt raising costs within the opex building block
- electricity consumer's concerns identified during the Network Operator's engagement with its consumers or in submissions on the revenue proposal
- a Network Operator's approach to mitigating or passing through risk to consumers (via adjustment mechanism and/or risk cost contingency).

9 Corporate income tax

We make an estimate of taxable income for each regulatory year as part of our determination of the annual building block revenue requirement for each year of the regulatory control period.¹⁰⁷ This estimate, determined in accordance with our PTRM, represents the taxable income that a Network Operator following efficient tax management practices would earn for providing regulated network services.

9.1 Calculating estimated cost of corporate income tax in the PTRM

Our approach for calculating a Network Operator's estimated cost of corporate income tax is set out in our PTRM and involves the following steps:

1. We set a benchmark estimate of annual assessable income (taxable revenue) that would be earned by a Network Operator following efficient tax management practices. This is the approved forecast revenues for the Network Operator that we determined using the building block approach.¹⁰⁸
2. We then estimate the benchmark tax expenses—such as opex, interest expense, tax depreciation—in the following ways:
 - operating expense is set equal to the opex building block
 - interest expense is a function of the size of the RAB, the benchmark gearing assumption (60%) and the regulated cost of debt
 - tax depreciation expense is calculated using a separate value for the Tax Asset Base (TAB), and standard and/or remaining tax asset lives for taxation purposes. The PTRM applies the diminishing value tax depreciation method for all new assets except for in-house software, buildings and equity raising costs.¹⁰⁹ The expenditure for these assets is to be depreciated using the straight-line method under the tax law. The PTRM also accounts for the value of certain forecast capex to be immediately expensed when estimating the benchmark tax expense. The value of immediately expensed capex is deducted from the net capex being depreciated for tax purposes for the year in which it is forecast to be commissioned.¹¹⁰ The immediately expensed amount is then included in the total tax depreciation amount for the relevant year.

There may be other revenue adjustments, but the assessment of whether they should give rise to a tax cost occurs on a case-by-case basis.

¹⁰⁷ EII Chapter 6A, cl. 6A.6.4.

¹⁰⁸ The total revenue for tax purposes is the sum of the building blocks including return on capital, return of capital, operating expenditure and cost of corporate taxation. It may also include other revenue adjustments, but the assessment of whether they should give rise to a tax cost will occur on a case-by-case basis.

¹⁰⁹ For more explanation of how we calculate depreciation using the diminishing value method, please see: AER, *Final decision - Amendments to the electricity transmission and distribution post-tax revenue models*, April 2019, pp. 11–18.

¹¹⁰ That is, the net capex to be added to the TAB for tax depreciation purposes is the amount of gross capex, less disposals, less the immediately deductible capex.

3. We estimate the annual taxable income that would be earned by a Network Operator by subtracting the benchmark estimates of tax expenses (step 2) from the approved forecast revenues for the Network Operator (step 1).
4. We apply the statutory income tax rate to the estimated annual taxable income (after adjustment for any tax loss carried forward) to arrive at a notional amount of tax payable.
5. We deduct the expected value for the utilisation of imputation credits (gamma) by investors from the notional amount of tax payable. The tax payable net of the expected value of imputation credits represents the estimated cost of corporate income tax and is included as a separate building block in determining the annual building block revenue requirement.

9.2 Assessing tax inputs to the PTRM

The estimated cost of corporate income tax is an output of our PTRM. We therefore assess the Network Operator's proposed cost of corporate tax by analysing the proposed inputs to the PTRM for calculating that cost. Our assessment approach for each of the tax inputs required in the PTRM are discussed below:

- **the standard tax asset life for each asset class:** Our assessment of a Network Operator's proposed standard tax asset lives is generally guided by the effective life of depreciating assets determined by the Commissioner of Taxation. We consider that the standard tax asset lives should be consistent with the ATO Taxation Ruling 2022/1 regarding the effective life of depreciating assets where possible.¹¹¹

As discussed above, the PTRM applies the diminishing value tax depreciation method for all new assets except for in-house software, buildings (capital works) and equity raising costs. It provides designated asset classes for these assets to be depreciated using the straight-line method for tax purposes.¹¹² The tax effective lives for in-house software, buildings and equity raising costs are not covered under the ATO Taxation Ruling 2022/1. Therefore, our assessment of the standard tax asset lives for these asset classes are guided by the *Income Tax Assessment Act 1997* (ITAA). Specifically, we consider that the standard tax asset life should be:

- 40 years for buildings – This is consistent with the number of years required to completely depreciate a capital works asset such as buildings for tax purposes when applying sections 43.15, 43.140 and 43.210 of the ITAA.
 - 5 years for in-house software – This is consistent with subsection 40.95(7) of the ITAA.
 - 5 years for equity raising costs – This is consistent with section 40.880 of the ITAA.
- **the income tax rate:** Our base assumption is that the statutory corporate income tax rate is 30% per year for the Network Operator.

¹¹¹ ATO, *Taxation Ruling TR2022/1 – Income tax: effective life of depreciating assets (applicable from 1 July 2022)*.

¹¹² Our assessment approach on new assets to be exempted from the diminishing value method is discussed in detail below.

- **the value of gamma:** We will use the gamma input consistent with the most recent rate of return instrument. For example, the 2022 *Rate of Return Instrument* requires us to use a gamma value of 0.57.¹¹³
- **the size and treatment of any tax losses as at the start of the regulatory control period:** Where a Network Operator has tax losses, we require the provision of this value to determine the appropriate estimated taxable income for a regulatory control period. If there is an amount of tax losses accumulated, the forecast taxable income for the regulatory control period will be reduced by this amount.
- **forecast immediate expensing of capex:** The PTRM requires a forecast for immediately deductible capex to be provided for each year of the regulatory control period. Our assessment of forecast immediate expensing of capex will be guided by previous decisions made under the NER and the Network Operator's actual immediate expensing of capex from the previous regulatory control period.¹¹⁴ We will collect actual data relating to this expenditure to further inform our decision on the amount of forecast immediate expensing of capex in future regulatory determinations. Benchmarking may also be considered going forward.¹¹⁵
- **diminishing value multiplier:** The PTRM applies the diminishing value method of tax depreciation and provides an input section for the 'diminishing value multiplier' to be recorded for each year of the regulatory control period. Currently, the diminishing value multiplier is set at 200% by the ATO.
- **new assets to be exempted from the diminishing value method:** The PTRM applies the diminishing value method for tax depreciation purposes to all new depreciable assets except for certain assets. It provides for asset classes 47 to 50 to be depreciated using the straight-line method for tax purposes rather than the diminishing value method. These asset classes are to contain new assets associated with in-house software, buildings (capital works) and equity raising costs.

We consider that the benchmark cost for equity raising costs should not be depreciated using the diminishing value method. Section 40.880 of the ITAA and the ATO's Taxation Ruling 2011/6 require that businesses claim deductions on equity raising costs in equal proportions over a five-year period.¹¹⁶ Therefore, in the PTRM, we apply the straight-line method for calculating the tax depreciation for equity raising costs, consistent with the ITAA and ATO's requirements.¹¹⁷ Further, the Network Operator may propose capex associated with buildings and in-house software to be exempted from the diminishing value method of tax depreciation in the PTRM if the proposal satisfies the following requirements:

- **buildings:** We consider that capex for buildings may be exempted from the diminishing value method in the PTRM, consistent with sections 43.15, 43.140 and

¹¹³ AER, *Rate of return Instrument – Explanatory Statement*, February 2023, pp. 240–250.

¹¹⁴ In the tax review final report we labelled our approach to determining the amount of capex that is to be immediately expensed as an 'actuals informed approach'. AER, *Final report, Review of regulatory tax approach*, December 2018, p. 66.

¹¹⁵ AER, *Final report – Review of regulatory tax approach*, December 2018, pp. 66–67.

¹¹⁶ ATO, *Taxation Ruling 2011/6*, July 2016.

¹¹⁷ The benchmark cost for equity raising costs is determined within the PTRM.

43.210 of the ITAA. However, such capex must be consistent with the definition of a capital work under section 43.20 of the ITAA and in ATO Taxation Ruling 97/25.¹¹⁸ This includes new buildings and structural improvements to existing buildings.¹¹⁹ However, capex on separate assets within a building such as air-conditioning units, transformers and converters are not consistent with the definition of a capital work, and therefore required to be depreciated using the diminishing value method in the PTRM.

- **in-house software:** We consider that capex for in-house software may be exempted from the diminishing value method in the PTRM, consistent with section 40.72 of the ITAA. However, such capex must be consistent with the definition of in-house software under section 995.1 of the ITAA and in ATO Taxation Ruling 2016/3.¹²⁰ This includes computer software, or the right to use computer software that the Network Operator acquires, develops or has someone else develop for the Network Operator's business use.¹²¹ However, capex associated with other IT assets such as computer hardware is not consistent with the definition of in-house software, and therefore required to be depreciated using the diminishing value method in the PTRM.

9.3 Interrelationships

The cost of corporate income tax building block feeds directly into the annual building block revenue requirement. This cost is determined by five factors:

- pre-tax revenues
- tax expenses (including tax depreciation)
- the corporate tax rate
- any tax losses carried forward
- gamma—the expected proportion of company tax that is returned to investors through the utilisation of imputation credits—which is offset against the cost of corporate income tax.

Of these factors, the corporate tax rate is set externally by the Government. The higher the tax rate the higher the required cost of corporate income tax.

The pre-tax revenues depend on all the building block components. Any factor that affects revenue will therefore affect pre-tax revenues. Higher pre-tax revenues can increase the tax

¹¹⁸ ATO, *Taxation Ruling 97/25*, July 2017.

¹¹⁹ ITAA, section 43.20.

¹²⁰ ATO, *Taxation Ruling 2016/3*, October 2018.

¹²¹ ITAA, section 995.1.

payable.¹²² Depending on the source of the revenue increase, the tax increase may be equal to or less than proportional to the company tax rate.¹²³

The tax expenses (or deductions) depend on various building block components and their size. Some components give rise to tax expenses, such as opex, interest payments and tax depreciation of assets. However, others do not, such as increases in return on equity. Higher tax expenses offset revenues as deductions in the tax calculation and therefore reduce the cost of corporate income tax (all things being equal). Tax expenses include:

- Interest on debt – because interest is a tax offset. The size of this offset depends on the ratio of debt to equity and therefore the proportion of the RAB funded through debt. It also depends on the allowed return on debt and the size of the RAB.
- General expenses – these expenses generally will match the opex including any revenue adjustments, but the assessment of whether they should be treated as a tax expense occurs on a case-by-case basis.
- Tax depreciation – a separate TAB is maintained for the Network Operator reflecting tax rules. This TAB is affected by many of the same factors as the RAB, such as capex, although unlike the RAB value it is maintained at its historical cost with no indexation. The TAB is also affected by the depreciation rate/method and asset lives assigned for tax depreciation purposes.

A Network Operator that has tax expenses which are greater than its taxable revenue in a period would not be subject to pay tax and would instead generate a tax loss. A tax loss can be carried forward to offset against tax payable in the future.

Financeability adjustments that involve shortening asset lives are to use the 'financeability life' input in the PTRM to prevent accelerating the tax write-off timeline. This is because the PTRM's tax calculation assumes that once the asset has no further economic life the residual value can be claimed as an expense for tax purposes. However, in the case of a financeability adjustment, the life specified for RAB depreciation no longer reflects the expected useful life of the asset. It is purely an adjustment to bring forward cashflows to address a demonstrated financeability issue.

¹²² Further, there is an iterative relationship between tax and revenues. That is, revenues lead to tax being applied, which increases revenues and leads to slightly more tax and so on. The PTRM is therefore set up to run an iterative process until the revenue and the cost of corporate income tax become stable.

¹²³ For example, although increased operating expenditure adds to the revenue requirement, these expenses are also offset against the revenues as deductions in determining tax, so there is no net impact in this case. A higher return on equity, in contrast, gives rise to no offsetting tax expenses and therefore increases the cost of corporate income tax in proportion to the company tax rate.

10 Adjustment mechanisms

During a regulatory control period, a Network Operator can apply to us to adjust any amount in a revenue determination to account for material changes in its costs arising from predefined circumstances.¹²⁴ These circumstances are referred to as adjustment events and are administered via the revenue adjustment mechanisms described in this section.

The EII Regulation forms the basis from which we conduct our assessments of all REZ revenue proposal components, including adjustment mechanisms. Under the EII framework, adjustment mechanisms are our only method of adjusting the revenue of a Network Operator during a regulatory control period, without necessarily remaking our revenue determination.

Our assessment approach for adjustment mechanisms is outlined in the non-contestable guideline and should be read alongside this section.¹²⁵

10.1 Adjustment mechanisms under the EII Regulation

A Network Operator may include in its revenue proposal mechanisms to adjust any amount provided for in our revenue determination. However, the EII Regulation provides the AER with discretion over whether to include an adjustment mechanism in its determination.¹²⁶ The EII Regulation also states that a provision in our determination may specify that a particular adjustment:¹²⁷

- a) must be carried out at particular times or in particular circumstances
- b) may or may not require the revenue determination to be revised and remade.

In considering the adjustment mechanisms proposed by the Network Operator we must also consider the principles prescribed for the regulator in making revenue determinations. One element of these principles prescribes the types of costs a Network Operator is entitled to recover:¹²⁸

- i. prudent, efficient and reasonable costs incurred by the Network Operator in complying with a regulatory requirement
- ii. payments required to be made by the Network Operator to the infrastructure planner under a contractual arrangement, if the Network Operator was required to enter the contractual arrangement under the relevant authorisation
- iii. reasonable costs incurred by the Network Operator, as assessed by the regulator, if the regulator fails to make a revenue determination within the specified time period.

As such, adjustment mechanisms—if triggered—form part of the potential costs and payments that may be required to be incurred or made by the Network Operator. Additionally, the EII Regulation requires that all adjustments included as part of a

¹²⁴ EII Regulation, cl. 51.

¹²⁵ AER, *Transmission Efficiency Test and revenue determination guideline for NSW non-contestable network infrastructure projects*, July 2024, p. 33.

¹²⁶ EII Regulation, cl. 51(1).

¹²⁷ EII Regulation, cl. 51(2).

¹²⁸ EII Regulation, cl. 46(1)(b).

non-contestable process, whether or not the revenue determination is reviewed and remade, be carried out in accordance with our guidelines.¹²⁹

10.1.1 Adjustment mechanisms under the non-contestable Guideline

The EII non-contestable framework is largely consistent with the NER Chapter 6A framework and therefore provides for a number of adjustment mechanisms including pass through events and nominated pass through events.¹³⁰ As such, we consider nominated cost pass through events to be a subset of adjustment mechanisms under the EII framework. In assessing any proposed adjustment mechanisms, we are likely to have regard to the nominated pass-through event considerations referenced in the EII Chapter 6A Rules.¹³¹ These considerations include:¹³²

- a) whether the event proposed is an event covered by a category of pass through event specified in clause 6.6.1(a1)(1) to (4) (in the case of a distribution determination) or clause 6A.7.3(a1)(1) to (4) (in the case of a transmission determination)
- b) whether the nature or type of event can be clearly identified at the time the determination is made for the service provider
- c) whether a prudent service provider could reasonably prevent an event of that nature or type from occurring or substantially mitigate the cost impact of such an event
- d) whether the relevant service provider could insure against the event, having regard to:
 - 1) the availability (including the extent of availability in terms of liability limits) of insurance against the event on reasonable commercial terms; or
 - 2) whether the event can be self-insured on the basis that:
 - i. it is possible to calculate the self-insurance premium; and
 - ii. the potential cost to the relevant service provider would not have a significant impact on the service provider's ability to provide network services; and.
- e) any other matter the AER considers relevant and which the AER has notified Network Service Providers is a nominated pass through event consideration.

Adjustment mechanisms for nominated pass-through events prescribed in EII Chapter 6A of the revenue determination guideline for non-contestable projects include:¹³³

- Regulatory requirements as defined in section 46(3) of the EII Regulation
- A service standard event
- A tax change event
- An insurance event

¹²⁹ EII Regulation, cl. 51(3)(a).

¹³⁰ AER, *Transmission Efficiency Test and revenue determination guideline for NSW non-contestable network infrastructure projects*, July 2024, p. 30.

¹³¹ EII Chapter 6A, cl. 6A.6.9.

¹³² NER, Chapter 10, definition of nominated pass through event consideration.

¹³³ EII Chapter 6A, cl. 6A.7.3(a1).

- Any other event specified in a transmission determination as a pass through event for the determination
- An inertia shortfall event
- A fault level shortfall event.

We consider that all these events should have the same definition under the EII framework as they do under the NER, where practicable, including any references to a materiality threshold.

The Australian Energy Market Commission (AEMC) described that the intent of the nominated pass through event considerations is to reflect the essential components of cost pass throughs. The AEMC considered that, for appropriate incentives to be maintained, any nominated pass through event should only be accepted when it is the least inefficient option and when event avoidance, mitigation, commercial insurance and self-insurance are unavailable or found to be inappropriate.¹³⁴

Adjustment mechanisms share the same intent as nominated pass-through events under the NER. Therefore, we consider that adjustment mechanisms also share the intent described above. Importantly, given this intent, the ability of a Network Operator to propose adjustment mechanisms under the EII framework should not be interpreted as a retreat from incentive-based regulation. Incentive regulation is fundamental to promoting efficiency in both Chapter 6A of the NER and the EII Act.¹³⁵ For example, we continue to expect expenditure forecasts proposed by a Network Operator and any adjustment mechanisms to be respectively unbiased estimates and symmetrical in their application.

10.2 Interrelationships

Adjustment mechanisms are not the only way Network Operators can manage their risks under the EII framework. Adjustment mechanisms are interrelated with other parts of this decision, in particular with the forecast opex, capex, and rate of return included in our revenue determination. These interrelationships require us to balance the incentives in the various parts of our decision.

For systematic risks, Network Operators are compensated through the allowed rate of return. A Network Operators also faces business-specific, or residual, risks. A Network Operator is compensated for the prudent and efficient management of these risks through the forecast opex and capex we include in our revenue determination for strategies such as:

- prevention (avoiding the risk)
- mitigation (reducing the probability and impact of the risk)
- insurance (transferring the risk to another party)
- self-insurance (putting aside funds to manage the likely costs associated with a risk event).

¹³⁴ AEMC, *Rule Determination – Cost pass through arrangements for Network Service Providers*, 2 August 2012, pp. 19–20.

¹³⁵ EII Act, s. 37(1)(b).

An efficient business will manage its risk by employing the most cost-effective combination of these strategies. In order to maintain appropriate incentives under our determinations, we only accept adjustment mechanisms where we are satisfied that event avoidance, mitigation, commercial insurance and self-insurance under approved forecasts of prudent and efficient opex and capex are either unavailable or inappropriate.¹³⁶

Under the EII framework, adjustment mechanisms and risk costs can be used to manage risks faced by Network Operators. The EII framework allows us to include a risk cost component in a revenue proposal for which the Network Operator is not already compensated.¹³⁷ Risk costs are intended to partially cover costs of risks if they eventuate, this reflects the probability of occurrence given that the risk may or may not eventuate. A risk cost allowance allows the Network Operator to receive partial coverage in recognition of this probability.

In contrast, adjustment mechanisms fully or partially cover the cost of the risk eventuating, only once it has occurred. Adjustment mechanisms should be reserved for events that are not reasonably able to be forecasted and should not be used to cover all sources of uncertainty. In some instances, an adjustment mechanism may apply in situations that are low probability events where, if the event did occur, it would have the potential for significant impact.

We expect a Network Operator to justify the use of either mechanism in managing its risks. In particular, we would consider if there is any duplication or overlap with the proposed use of adjustment mechanisms and risk costs included in the capex forecast to cover a specific risk.

Like cost pass throughs under the NER, adjustment mechanisms approved in a regulatory control period are added to (or in the case of a negative pass through, deducted from) forecast opex and capex for the purpose of calculating efficiency carryover amounts under the efficiency benefit sharing scheme and capital expenditure sharing scheme, respectively.¹³⁸ Adjustment mechanisms that have already been recovered in a regulatory control period cannot be recovered again in the roll-forward of the regulatory asset base for the next regulatory control period.¹³⁹

10.3 Assessment of adjustment mechanisms

Our assessment approach to adjustment mechanisms will follow one of two key paths depending on the type of expenditure the Network Operator is proposing to recover through the adjustment mechanism. Our two assessment approaches are necessitated by the EII Regulation, which stipulates that a Network Operator is entitled to recover payments to be made from the Network Operator to the Infrastructure Planner according to contractual agreements.¹⁴⁰ However, adjustment mechanisms for all other types of expenditure are

¹³⁶ AEMC, *Rule Determination – Cost pass through arrangements for Network Service Providers*, 2 August 2012, p. 19–20.

¹³⁷ EII Act, s. 38(2); EII Regulation, cl. 50A.

¹³⁸ AER, *Efficiency benefit sharing scheme*, November 2013, p. 7; AER, *Capital expenditure incentive guideline*, November 2013, p. 13.

¹³⁹ NER, cl. S6.2.1(e)(1)(ii) and 6A.2.1(f)(1)(ii).

¹⁴⁰ EII Regulation, cl. 46(1)(b)(ii)

subject to our assessment of the prudence, efficiency and reasonableness of the costs incurred by the Network Operator in complying with a regulatory requirement.

10.3.1 Adjustment mechanisms for contractual arrangements with the Infrastructure Planner

Where a Network Operator is required to make payments to the Infrastructure Planner under a contractual arrangement as part of a relevant authorisation,¹⁴¹ we will pass those costs through as part of our non-contestable revenue determination. That is, we do not review the prudence, efficiency or reasonableness of these costs but must still include them in our non-contestable revenue determination.

Our assessment of an adjustment mechanism for this type of cost is primarily checking that the contractual arrangement was required to be entered into under the relevant authorisation, and the costs claimed in the adjustment mechanism match what is allowed to be recovered under the contractual arrangement.

To facilitate our assessment under this approach, we would expect the Network Operator to provide as part of its revenue proposal:

- a copy of the contractual arrangement it entered into with the Infrastructure Planner under the relevant authorisation
- justification as to why this adjustment mechanism meets the definition of payments to be made by the Network Operator to the Infrastructure Planner, with references to the specific clauses in the contractual arrangement.

10.3.2 Adjustment mechanisms for costs not related to Infrastructure Planner payments

We apply our standard assessment approach where the adjustment mechanism does not relate to payments to be made by the Network Operator to the Infrastructure Planner under a contractual arrangement. Our standard approach is largely consistent with the process for cost pass throughs under the NER, and involves the assessment of the prudence, efficiency and reasonableness of the costs to be recovered under the proposed adjustment mechanism.

In determining whether a proposed adjustment mechanism is prudent, efficient and reasonable, we may have regard to:

- the nominated pass-through event considerations referenced in the EII Chapter 6A Rules
- the resources available to the Network Operator and the constraints under which it was operating at the time it forecast its expenditure
- the Network Operator's ability, or lack thereof, to alter scope or reprioritise its work program

¹⁴¹ EII Act, s. 38(2); EII Regulation, cl. 46(1)(b)(ii) and 50A.

- any potential double counting of costs already covered by other areas of the revenue proposal
- the relative appropriateness of the adjustment mechanism as the method of passing through the risk/s to consumers, specifically with respect to:
 - the degree of control the Network Operator has over the risks relating to the adjustment mechanism
 - the degree of uncertainty surrounding the Network Operator's ability to forecast the impact of these risks
 - the expected likelihood of the adjustment event occurring and the materiality of the impact if it does occur
 - the appropriateness of subjecting these costs to the incentive framework.
- whether the adjustment mechanism has been proposed based on unbiased estimates and is symmetrical in its application
- whether the adjustment mechanism relates to a routine administrative event which would have been administered via another process under the NER, but which is unavailable under the EII framework
- any relevant conditions of a contractual arrangement the Network Operator entered into with the Infrastructure Planner under the relevant authorisation (not relating to payments to be made by the Network Operator to the Infrastructure Planner—see previous section).

As a matter of good regulatory practice, we also take into account the desirability of consistency in our approach to assessing adjustment mechanisms across our REZ determinations and nominated pass through events made in electricity and gas determinations under the NER.¹⁴²

We consider the EII Regulation allows us to specify that a particular adjustment must include a materiality threshold, or a maximum cost recovery cap.¹⁴³ In most nominated pass throughs events under the NER, a materiality threshold is applicable. This is due to the Network Operator's ability to reprioritise or substitute its projects, to avoid seeking cost recovery through the pass through mechanism.¹⁴⁴ In general, a Network Operator does not have this same ability to reprioritise or substitute projects under the EII framework. However, we consider there may be cases where applying a materiality threshold to an adjustment mechanism is desirable, including to incentivise the Network Operator to effectively negotiate with third parties. As such, we will consider applying a materiality threshold to adjustment mechanisms on a case-by-case basis.

We consider a maximum cost recovery cap may be appropriate under the EII framework. We consider that allowing an adjustment mechanism to recover the full cost of any capital expenditure increase that a Network Operator bears undermines the incentives created by

¹⁴² AEMC, *Rule Determination – Cost pass through arrangements for Network Service Providers*, 2 August 2012, p. 18.

¹⁴³ EII Regulation, cl. 51(2).

¹⁴⁴ AEMC, *Final position paper – Economic Regulation of Network Service Providers, and Price and Revenue Regulation of Gas Services*, 29 November 2012, p. 186.

an efficient revenue allowance. It also weakens the incentives and cost/benefit sharing between the Network Operator and consumers provided by the CESS, as it effectively removes the expenditure cap with no penalty. In considering whether to accept adjustment mechanisms, and to balance these concerns against the need for the Network Operator to recover efficient expenditure, we may apply a maximum cumulative increase (or cap) to the revenue able to be recovered under an adjustment mechanism over the regulatory period.

We may also consider alternative approaches, such as a delayed capex forecast, to address the uncertainty regarding forecast capex in unique circumstances—though we intend to preserve appropriate incentives for the Network Operator to incur capex efficiently.¹⁴⁵ These approaches would allow the Network Operator to recover the prudent, efficient, and reasonable costs of carrying out the network infrastructure project by accommodating the cost variations it has no control over. This approach also ensures the Network Operator is not exposed to additional risk by enabling the Network Operator to pursue an approach that could lower the cost of the project overall (benefiting consumers) and maintains the incentive to manage its costs efficiently.

A Network Operator should provide as part of its revenue proposal, reasonable evidence to support its claim that the costs recovered under the proposed adjustment mechanisms represent prudent, efficient and reasonable expenditure. We expect that a Network Operator's revenue proposal should provide the following supporting evidence for adjustment mechanisms:

- a copy of the contractual arrangement it entered into with the Infrastructure Planner under the relevant authorisation
- specific references to the EII Chapter 6A Rules
- justification for why the relevant forecast expenditure was not able to be estimated or estimated with greater accuracy
- justification to support the increased risks of estimating forecast expenditure under the EII framework relative to the same forecast expenditure under the NER, including any actions the Network Operator undertook to decrease this risk
- a detailed risk register containing identified risks and probabilities associated with each risk, which specifies the relevant treatment as either risk contingency cost or adjustment mechanism, and notes any assumptions made by the Network Operator
- a detailed options analysis investigating different methods of dealing with the risks associated with the adjustment mechanism event including:
 - not passing the risk on to consumers
 - passing the risk on the consumers via an adjustment mechanism
 - passing the risk on the consumers via a risk cost contingency.
- justification for whether this adjustment mechanism is expected to be symmetrical in its application (that is, the potential for both upside and downside risks)

¹⁴⁵ AER, *Preliminary position paper – Hunter Central Coast REZ network infrastructure project (non-contestable)*, August 2025, pp. 16–17.

In general, we consider that adjustment mechanisms are of significant interest to stakeholders, due to the potential price impact of these adjustments occurring throughout a regulatory control period. As such, we generally consider that a Network Operator under a non-contestable process should not seek to claim confidentiality over an adjustment mechanism without ensuring that the public version of that adjustment mechanism is available and can be adequately understood. In the public version of the adjustment mechanism, a Network Operator should ensure stakeholders are provided with a detailed description of how this mechanism works and the rationale behind its inclusion in the revenue proposal. However, if a Network Operator does claim confidentiality over an adjustment mechanism, we will consider this confidentiality claim on a case-by-case basis. In such cases, we would expect the justification to explain in detail the reasoning for the claims on both the name and the event description, and when the confidentiality claim would expire on each part of the adjustment mechanism. However, our default position is that the existence of an adjustment mechanism should be public for transparency.

11 Incentive schemes

When making a revenue determination we are required to consider the principle that Network Operators should have incentives to promote economic efficiency.¹⁴⁶

We have developed and applied the Capital Expenditure Sharing Scheme (CESS) and the Efficiency Benefit Sharing Scheme (EBSS) under the NER to provide financial incentives to Network Service Providers (NSPs) to become more efficient. We intend to apply those schemes to EII projects.¹⁴⁷ Amongst other things, there are several incentive schemes and considerations that we must not deal with, which covers small-scale incentive schemes, the demand management innovation allowance mechanism, and removal of assets from the regulatory asset base.¹⁴⁸

More information on the incentive schemes can be found in:

- the Capital Expenditure Incentive Guideline
- the Efficiency Benefit Sharing Scheme Guideline

This section of the guidance note derives from and supersedes our draft guidance note on incentive schemes for non-contestable projects in NSW.

11.1 Capital Expenditure Sharing Scheme

The objective of the CESS is to provide Network Operators with an incentive to undertake efficient capital expenditure (capex) during a regulatory control period. It achieves this by rewarding Network Operators that underspend their forecast capex and penalising Network Operators that spend more than their forecast capex. The CESS also provides a mechanism to share efficiency gains and losses between Network Operators and consumers. For example, if a Network Operator makes an efficiency gain in one regulatory control period, they are also rewarded in the following regulatory period. Consumers will benefit from a lower regulated asset base (lower revenue) into the future. The standard sharing factor between Network Operators and consumers is 30:70, with a tiered rate applying to efficiency gains.¹⁴⁹

Without a CESS, a Network Operator will face incentives that decline over a regulatory control period. If a Network Operator makes an efficiency gain in the first year of a five-year regulatory control period, any benefit will last for four more years before we update the RAB for actual capex. However, in the final year, the benefit will be approximately zero. This may lead to inefficient capex and inefficient substitution of opex for capex towards the end of a regulatory control period.

¹⁴⁶ EII Act, s. 37(1)(b), EII Chapter 6A.

¹⁴⁷ EII Regulation, cl. 47B(1).

¹⁴⁸ EII Regulation, cl. 47A(5)(f)–(g), (j).

¹⁴⁹ AER, *Capital expenditure incentive guideline*, August 2025, pp. 4–5. The sharing ratio under the NER is tiered for underspends over 10 per cent of forecast capex but remains at 30 per cent for NSPs who underspend below 10 per cent.

The CESS is also linked to the EBSS. Without a CESS, a Network Operator may be incentivised to capitalise opex. This would increase capex with the aim to reduce opex and receive an EBSS benefit. Consequently, the CESS acts as a constraint on capitalisation due to the threat of a CESS penalty from a capex overspend.

The CESS applies to the forecast capex in a given regulatory control period. During a revenue determination a CESS calculation is made based on a Network Operator's current regulatory control period capex. This determines whether a CESS payment or penalty will be added as an additional building block when setting the Network Operator's regulated revenue for the next regulatory control period.

11.1.1 Conditions of the CESS under the EII framework

Under the NER, the CESS rewards NSPs that make efficiency gains and penalises those that make efficiency losses. In this way, if a NSP is subject to the CESS and faces these incentives, its capex is more likely to be efficient and will reflect the costs of a prudent NSP. This concept is synonymous with the principle of providing incentives to promote economic efficiency under the EII Act.¹⁵⁰

When submitting a revenue determination under the NER, an NSP includes a capex forecast including many programs and projects across its entire network. Portions of this forecast are considered recurrent (such as replacement expenditure) and some non-recurrent (such as augmentation expenditure). When we determine the total forecast capex, the NSP can use this amount however it chooses to best manage its network over the regulatory control period.

In contrast, under the EII non-contestable framework, a Network Operator is authorised (or directed) to undertake a network infrastructure project.¹⁵¹ Each individual project is subject to its own revenue determination where the Network Operator submits a revenue proposal that includes a capex forecast. The main differences between the EII framework and the NER are:

- EII infrastructure projects are non-recurrent in nature and can therefore be difficult to forecast. Capital expenditure under the NER is more recurrent meaning NSPs can better utilise historical data to assist in forecasting.
- The CESS would apply to capex for single projects rather than the entire network.

Transmission projects such as Integrated System Plan (ISP) or EII projects can have greater forecasting risk. This is because of the large scale and bespoke nature of such projects relative to recurrent projects that can utilise historical revealed costs to assist in forecasting. Forecasting risk is heightened in an environment of uncertainty around inflation, supply chains and the labour market.

Due to the single-project nature of many determinations under the EII framework, a Network Operator has limited scope to re-prioritise its capex between other projects and programs.

¹⁵⁰ EII Act, s. 37(1)(b).

¹⁵¹ EII Act, s. 31(1).

Should a Network Operator face a CESS penalty from a capex overspend, it has limited opportunity to underspend in other areas to mitigate this risk.

11.1.2 Application of the CESS under the EII framework

We consider EII non-contestable projects to be similar in nature to transmission contingent projects under the NER. Therefore, we have adopted the same approach as set out in the capital expenditure incentive guideline.¹⁵² Because each non-contestable determination is a single project, this provides us with flexibility to deal with each project on a case-by-case basis to evaluate a Network Operator's risks and decide on the CESS accordingly.

During a revenue determination (including the initial determination), we will have discretion on whether to apply the CESS to a Network Operator's forecast capex. Our default position is to apply the CESS, and we will make exclusions in only limited circumstances. We will also have discretion to apply a different sharing ratio. This is consistent with how we treat contingent project proposals by Transmission NSPs under the NER.¹⁵³

In determining whether to apply a different sharing ratio or to exclude the application of the CESS to forecast capex, we will take into account:¹⁵⁴

- the Network Operator's proposals for CESS and capital expenditure
- benefits to consumers from the exemption
- the size of the project
- the degree of capital expenditure forecasting risk (both the overall project uncertainty and forecasting uncertainty)¹⁵⁵
- stakeholder views.

In its non-contestable revenue proposal, a Network Operator can submit why it considers we should not apply the CESS or how the sharing ratio should be varied. The Network Operator should provide sufficient information and evidence to substantiate its position. This can include details about the risk profile of the project (for both the Network Operator and contractors) and the types of contracts used.

How the CESS will apply

Should we decide to apply the CESS, the scheme will operate the same as it does under the NER including any adjustment of the sharing ratio.¹⁵⁶ The sharing ratio is a parameter that can be adjusted in the CESS model. The CESS will work as follows:¹⁵⁷

¹⁵² AER, *Capital expenditure incentive guideline*, August 2025, s. 2.6.2.

¹⁵³ AER, *Capital expenditure incentive guideline*, August 2025, pp. 8–9.

¹⁵⁴ AER, *Capital expenditure incentive guideline*, August 2025, p. 9.

¹⁵⁵ For example, the extent to which a project is outsourced and subject to contract terms. We will have regard to the proposed amounts for risk and contingency costs, and adjustment mechanisms and their interrelationships. We will also have regard to the actions the Network Operator has taken, or its ability to take action, to mitigate forecasting risk.

¹⁵⁶ AER, *Capital expenditure incentive guideline*, August 2025, pp. 4–5.

¹⁵⁷ AER, *Capital expenditure incentive guideline*, August 2025, p. 3.

- We calculate efficiency gains and losses in NPV terms. We do this for each year of regulatory control period n and then the total efficiency gain/loss is calculated for regulatory control period n .
- We apply a sharing factor to the total efficiency gain/loss to calculate the Network Operator's share of the gain/loss.
- We calculate financing benefits/costs that accrue through regulatory control period n .
- We calculate the CESS reward/penalty by subtracting the financing benefit/cost that has accrued from the Network Operator's share of the total efficiency gain/loss.
- We add the CESS reward/penalty amounts as an additional 'building block' when setting the Network Operator's regulated revenue for regulatory control period $n + 1$.

The CESS will largely use the same methodology as described in section 2 of the NER Capital Expenditure Incentive Guideline.¹⁵⁸ The only difference is the method used to apply the sharing ratio will be determined in the final revenue determination.

11.1.3 Application of a modified CESS

As described in the capex incentive guideline in section 2.6.2, we may apply a modified CESS to REZ network infrastructure projects. The CESS can be modified by not applying the CESS, excluding cost elements from the CESS, and varying the sharing ratio.

In considering whether to apply a modified CESS, our default position is to apply the CESS, and we will make exclusions or modifications in only limited circumstances where there is a strong case to do so having regard to the considerations in section 11.1.2 above.

11.1.4 Adjusting the CESS for an ex post exclusion

The capex incentive guideline includes provisions for an ex post review of efficient capital expenditure.¹⁵⁹ If we determine that overspent capex is inefficient in our ex post review, then that capex may not be rolled into the RAB. If that occurs, then a network could be penalised in two ways by not having the overspent capex added to the RAB in addition to receiving a CESS penalty. In such cases, we have an adjustment mechanism in the CESS so that we do not double penalise.¹⁶⁰

Our decision to adjust the CESS for an ex post exclusion described above relies on the existence of an ex post review. If there is no ex post review, then a CESS adjustment of this nature will not occur. For the avoidance of doubt, given the NSW EII framework does not have provisions for the AER to undertake an ex post review,¹⁶¹ we do not consider that the CESS can be adjusted for these purposes.

¹⁵⁸ AER, *Capital expenditure incentive guideline*, August 2025, pp. 2–6.

¹⁵⁹ AER, *Capital expenditure incentive guideline*, August 2025, section 4.

¹⁶⁰ AER, *Capital expenditure incentive guideline*, August 2025, pp. 11–12.

¹⁶¹ EII Regulation, cl. 47A(5)(j); and NSW Government Office of Energy and Climate Change, [Policy Paper – Regulatory framework for the transmission efficiency test and regulator's determinations for network infrastructure projects](#), p. 25.

11.2 Efficiency Benefit Sharing Scheme

The objective of the EBSS is to provide Network Operators with a consistent incentive to undertake efficient opex across each year of a regulatory control period.

The EBSS is intrinsically linked to the approach we use to forecast opex. When forecasting opex we typically use one year of actual opex as a 'base year' to forecast future opex. We then make changes for factors such as output growth, real price changes, productivity growth and any other efficient cost changes. This is known as the revealed cost base-step-trend forecasting approach described in section 8.2. There are two potential incentive problems with this forecasting approach when an EBSS is not in place:

- A Network Operator has an incentive to increase opex in the expected base year to increase its forecast opex for the following regulatory control period.
- Incentive levels are not maintained through the regulatory control period. When a Network Operator underspends on its opex allowance, it retains the benefits for the remainder of the regulatory control period. Without the EBSS a Network Operator has declining incentives to reduce its recurrent opex as the regulatory control period progresses. It then increases again after the base year used to forecast opex for the following regulatory control period.

The EBSS addresses these incentive problems by allowing Network Operators to retain efficiency gains, and efficiency losses, for a total of six years including the year in which they were first incurred, regardless of when they were made. For example, if a Network Operator makes an efficiency gain in year 4 of a five-year regulatory control period, it will carry over those gains until the end of year 4 of the following regulatory control period.¹⁶² This results in the EBSS sharing efficiency gains and losses between Network Operators and consumers as consumers benefit from a reduction of recurrent opex into the future. The EBSS is designed to share the benefits between Network Operator and consumers at approximately 30:70. The EBSS encourages Network Operator to make sustainable efficiency gains and reveal true operating costs as early as possible for the benefit of consumers.

During a revenue determination under the NER, we calculate the rewards and penalties a Network Operator has accrued from the application of the EBSS in the current regulatory control period. These rewards and penalties are included as an additional 'building block' when setting the Network Operator's regulated revenue for the next regulatory control period. The EBSS removes the incentive for a Network Operator to inflate its base year opex and provides a consistent incentive to reduce opex across a regulatory control period.

11.2.1 EBSS under the EII framework

Under the EII Regulation schemes included as part of making a non-contestable revenue determination must be consistent with the equivalent schemes under the NER, Chapter 6A.¹⁶³ We aim to ensure the application of the EBSS and CESS consistent with the equivalent schemes under the NER, where possible. However, there are some fundamental

¹⁶² Without the EBSS, the Network Operator would only receive benefits for the remaining 2 years of that regulatory control period.

¹⁶³ EII Regulation, cl. 47B(3).

differences between revenue determinations made under the NER and the EII framework (that is, the EII Act and the EII Regulation). As such, we are required to consider modifications to the NER schemes to ensure they can be applied to the non-contestable framework.

When calculating an EBSS reward/penalty for the current regulatory control period, the EBSS may exclude any opex that we do not forecast on a revealed cost basis for the following regulatory control period. That is, if a Network Operator has not used single year (base year) revealed costs from the current regulatory control period to forecast an opex category for the following regulatory control period, the EBSS may exclude that category from the calculations for the current regulatory control period. When a single year revealed cost approach is not used to forecast opex the EBSS may not share efficiency gains 30:70 between Network Operator's and consumers. If such an approach is not used, a different sharing ratio may result leading to a risk of the EBSS providing windfall gains or losses to a Network Operator.

For an initial revenue determination under the EII framework, there is a greater level of uncertainty that a Network Operator's forecast opex will reflect efficient costs. This is due to the following:¹⁶⁴

- A Network Operator will not have historical revealed opex to base its forecast on.
- The one-off and bespoke nature of EII non-contestable projects means a Network Operator is unlikely to be able to use suitable benchmarking.
- The initial regulatory control period will be a design and construction phase meaning opex may not reach a level of recurrency or a steady state.

Similar to how the EBSS is applied under the NER, it may not be appropriate in the initial non-contestable revenue determination for us to state with certainty that the EBSS will apply to a Network Operator's forecast opex.

11.2.2 Application of the EBSS under the EII framework

First regulatory control period

At the completion of the initial regulatory control period (during the revenue determination for the second regulatory control period) we will have discretion to apply the EBSS or not to opex incurred during the initial regulatory control period. When considering whether to apply the EBSS or not, we will consider the extent to which the Network Operator has revealed opex that is efficient and has reached a steady state such that it could be used to forecast opex for the following regulatory control period.

Second regulatory control period

If the Network Operator's opex has not reached a steady state by the end of the initial regulatory control period and the base-step-trend forecast methodology is not used, we will take the same approach for the EBSS as we did for the initial regulatory control period. That is, we will have discretion to apply the EBSS at the completion of the second regulatory control period.

¹⁶⁴ AER, *Explanatory statement – efficiency benefit sharing scheme*, November 2013, p. 14.

In its non-contestable revenue proposal (for any regulatory control period), a Network Operator can submit why it considers we should or should not apply the EBSS for either forecast opex or opex incurred during the current regulatory period. The Network Operator should provide sufficient information and evidence to substantiate its position.

How the EBSS will apply

Should we decide to apply the EBSS, the scheme will operate the same as it does under the NER.¹⁶⁵ The EBSS will work as follows:

- The Network Operator keeps the benefit (or incurs the cost) of delivering actual opex lower (higher) than forecast opex in each year of regulatory control period n .
- We calculate EBSS carryover amounts for opex efficiency gains or losses made in regulatory control period n prior to the start of regulatory control period $n + 1$. The carryover amounts allow the Network Operator to retain incremental efficiency gains or losses for the length of the carryover period (usually five years) after it makes the gain or loss.
- We add the carryover amounts as an additional 'building block' when setting the Network Operator's regulated revenue for regulatory control period $n + 1$.
- The actual opex incurred in the base year is used as the starting point for forecasting opex for regulatory control period $n + 1$. This passes the efficiency gains made on to consumers.
- Under this approach, the benefits of any increase or decrease in opex is shared approximately 30:70 between the Network Operator and consumers.

The EBSS will use the same methodology as described in the NER EBSS guideline under section 1.3 and 1.4.¹⁶⁶

¹⁶⁵ AER, *Efficiency benefit sharing scheme*, November 2013, p. 5.

¹⁶⁶ AER, *Efficiency benefit sharing scheme*, November 2013, pp. 4–7.

12 Shortened forms

Shortened form	Full form
ABBRR	Annual building block revenue requirement
ACCC	Australian Competition and Consumer Commission
AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
bppa	Basis points per annum
capex	Capital expenditure
CESS	Capital expenditure sharing scheme
EBSS	Efficiency benefits sharing scheme
EII	Electricity Infrastructure Investment
EII Act	<i>Electricity Infrastructure Investment Act 2020 (NSW)</i>
EII Regulation	<i>Electricity Infrastructure Investment Regulation 2021 (NSW)</i>
ISP	Integrated System Plan
NEL	National Electricity Law
NER	National Electricity Rules
NPV	Net present value
NSP	Network Service Provider
opex	Operating expenditure
PTRM	Post-tax revenue model
RAB	Regulatory asset base
REZ	Renewable Energy Zone
RIT-T	Regulatory investment test for transmission
TAB	Tax asset base
WACC	Weighted average cost of capital