Draft decision

Amadeus Gas Pipeline access arrangement 2026 to 2031

(1 July 2026 to 30 June 2031)

Appendix A – Assessment approach

November 2025

AUSTRALIAN ENERGY REGULATOR

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Appendix A

This document forms part of our draft decision on the access arrangement that will apply for period of 1 July 2026 to 30 June 20231 (2026–31) for APT Pipelines (NT) Pty Limited's (APTNT) Amadeus Gas Pipeline (Amadeus Pipeline).

The document sets out our assessment approaches applied in considering our decision and it should be read together with our draft decision.

A.1 Capital base – assessment approach

To determine the projected opening capital base, we developed a capital base Roll Forward Model (RFM) and a Post Tax Revenue Model (PTRM) that the service provider must use in preparing its proposal.[1] We use the RFM to roll forward the service providers' capital base from the beginning of the final year of the earlier access arrangement period, through the current access arrangement period, to the beginning of the next access arrangement period. We then use the PTRM to calculate the projected capital base over next access arrangement period.

A.1.1 Rolling forward the capital base in the RFM and PTRM

In accordance with rules 77(2) and 78 of the National Gas Rules (NGR) and the capital base roll forward approach in our RFM and PTRM, we apply three steps to calculate the projected capital base:

- First, we confirm the value of the opening capital base for the first year of the current access arrangement period. This includes making an adjustment to account for any difference between actual and estimated capex in the final year of the previous access arrangement period. This adjustment must also remove any benefit or penalty associated with any difference between the estimated and actual capex for that final year.[2]
- Second, the opening capital base for the first year of the current access arrangement period is rolled forward to determine the closing capital base at the end of this period. This closing capital base is also used as the opening capital base value at the commencement of the next access arrangement period. This involves:[3]
  - Adding conforming actual capex to the capital base for the relevant year.[4] We assess the actual capex amounts against the provisions of the current access arrangement, values from audited annual reporting RINs and the definition of 'conforming capital expenditure' in the NGR[5]
  - Adding any amounts in the speculative capex account that are reclassified as conforming capex, as well as any adding the value of any redundant assets that

1 NGR, rr. 72(3) and 75A(2).
2 NGR, r. 77(2)(a).
3 NGR, r. 77(2).
4 NGR, r. 77(2)(b).
5 NGR, r. 79(1).

have been removed from the capital base that are reused during the current access arrangement period[6]
  - Adding actual inflation (indexation) adjustment to the opening capital base for the relevant year.[7] This adjustment is consistent with the inflation factor used in the annual reference tariff variation mechanism.
  - Subtracting depreciation for each year, calculated in accordance with the approved access arrangement for the period.[8] Depreciation based on forecast or actual capex can be used to roll forward the capital base.[9] Our default approach is to use depreciation based on forecast capex for rolling forward the service provider's capital base over the access arrangement period.[10]
  - Subtracting any redundant assets and disposals during the current access arrangement period.[11]
- Third, the capital base is projected over the next access arrangement period by rolling forward the opening capital base from the beginning of the next period. This involves the following adjustments on the opening capital base for the next period:[12]
  - Adding forecast conforming capex for each year (net of any forecast capital contributions)
  - Adding an expected inflation (indexation) adjustment to the opening capital base for the relevant year[13]
  - Subtracting forecast depreciation for the relevant year
  - Subtracting forecast value of assets to be disposed for the relevant year.

A.1.2 Interrelationships

The size of the capital base substantially impacts the service provider's revenue, and in turn the network price that is paid by its customers. It is an input into the determination of the return on capital and depreciation (return of capital) building blocks.[14] Factors that influence the capital base will therefore flow through to these building block components and the annual building block revenue requirement. Other things being equal, a higher capital base increases both the return on capital and depreciation amounts. In turn, it increases the service provider's revenue, and prices for its services.

The capital base is determined by various factors, including;

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6 NGR, rr. 84(3), 85 and 86. The speculative capex account relates to the amounts of non-conforming capital expenditure provided in an access arrangement that it is not to be recovered through a surcharge on users or a capital contribution.

7 AER, *Final decision Gas distribution network service providers Roll forward model handbook*, April 2020, p. 24.

8 NGR, r. 77(2)(d).

9 NGR, r. 90.

10 The use of forecast depreciation approach must be consistent with the approach approved in the current access arrangement.

11 NGR, r. 77(2)(e) and (f).

12 NGR, r. 78.

13 AER, *Final decision Gas distribution service providers Post-tax revenue model handbook*, April 2021, p. 24.

14 The size of the capital base also impacts the benchmark debt raising cost. However, this amount is usually relatively small and therefore not a significant determinant of revenues overall.

- the opening capital base (meaning the value of existing assets at the beginning of the access arrangement period)
- net capex[15]
- depreciation
- indexation adjustment – so the capital base is presented in nominal terms, consistent with the rate of return.

The opening capital base depends on the value of existing assets as well as actual conforming net capex, actual inflation outcomes and depreciation in the past.

The capital base, when projected to the end of the access arrangement period, may increase due to 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 capital base at the start of each year throughout the access arrangement period.

Depreciation reduces the capital base. The depreciation amount depends on the size of the opening capital base, the forecast net capex and the depreciation schedules applied to the assets.

We maintain the capital base in real terms by indexing for inflation. A nominal rate of return (or WACC) is multiplied by the opening capital base to produce the return on capital building block.[16] To prevent double counting of inflation through the nominal WACC and indexed capital base, the regulatory depreciation building block has an offsetting reduction for indexation of the capital base.[17] Indexation of the capital base and the offsetting adjustment made to depreciation results in a smoother revenue recovery profile over the life of an asset than if the capital base was un-indexed. The implications of our approach to indexing the value of the capital base on revenues are discussed further in section A.2.

A 10% increase in the opening capital base causes revenues to increase by between 4% to 7% ($ nominal). However, the impact of the annual change in capital base on revenues depends on the source of the capital base change, as some drivers affect more than one building block cost.[18]

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15 Net capex is gross capex less disposals and capital contributions.

16 NGR, r. 87.

17 If the asset lives are extremely long, such that the capital base depreciation rate is lower than the inflation rate, then negative regulatory depreciation can emerge. The indexation adjustment is greater than the capital base depreciation in such circumstances. Please also refer to section 4.3.1 of Attachment 4 of this draft decision for further explanation of the offsetting adjustment to the depreciation building block.

18 If capex causes the capital base to increase—return on capital, depreciation, and debt raising costs all increase too. If a reduction in depreciation causes the capital base to increase, revenue could increase or decrease. In this case, the higher return on capital is offset (perhaps more than offset) by the reduction in the depreciation allowance. Inflation naturally increases the capital base in nominal terms.

A.2 Regulatory depreciation – assessment approach

In an access arrangement proposal, a gas pipeline service provider must provide a forecast depreciation schedule as part of its total revenue.[19] The depreciation schedule sets out the basis on which the pipeline assets constituting its capital base are to be depreciated for the purpose of determining a reference tariff.[20] It may consist of several separate schedules, each relating to a particular asset or class of asset.[21]

In making a decision on the proposed depreciation schedule, we assess the compliance of the proposed depreciation schedule with the depreciation criteria set out in the NGR. The depreciation criteria[22] state that the depreciation schedule should be designed:

- so that reference tariffs will vary, over time, in a way that promotes efficient growth in the market for reference services[23]
- so that each asset or group of assets is depreciated over the economic life of that asset or group of assets[24]
- so as to allow, as far as reasonably practicable, for adjustment reflecting changes in the expected economic life of a particular asset, or a particular group of assets[25]
- so that (subject to the rules about capital redundancy), an asset is depreciated only once,[26] and
- so as to allow for the service provider's reasonable needs for cash flow to meet financing, non-capital and other costs.[27]

The NGR also provide that compliance with the depreciation criteria may involve the deferral of a substantial amount of depreciation in circumstances where investment is made on the expectation of future demand growth.[28]

The NGR require that any forecast must be arrived at on a reasonable basis and must represent the best forecast or estimate possible in the circumstances.[29]

Our assessment takes into account the revenue and pricing principles (RPP) and seeks to achieve the National Gas Objective (NGO).[30] The NGO is to promote efficient investment in, and efficient operation and use of, covered gas services for the long term interests of consumers of covered gas with respect to price, quality, safety, reliability and security of

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19 NGR, rr. 72(m) and 76(b).
20 NGR, r. 88(1).
21 NGR, r. 88(2)
22 NGR, r. 89.
23 NGR, r. 89(1)(a).
24 NGR, r. 89(1)(b).
25 NGR, r. 89(1)(c).
26 NGR, r. 89(1)(d).
27 NGR, r. 89(1)(e).
28 NGR, r. 89(2).
29 NGR, r. 74(2).
30 NGL, s. 28; NGR r. 68B(1).

supply of covered gas and the achievement of targets set by a participating jurisdiction for reducing Australia's greenhouse gas emissions or that are likely to contribute to reducing Australia's greenhouse gas emissions.[31] We are required, when carrying out our economic regulatory functions under the National Gas Law (NGL) and NGR, to make a decision that will contribute, or will be likely to contribute, to the achievement of the NGO.[32] In addition, when exercising our decision making powers on those parts of an access arrangement relating to a reference tariff, we are required to take into account the RPP.[33] These include the principle that a service provider should be provided with effective incentives in order to promote efficient investment in, provision of and use of pipeline services, and the principle that we should have regard to the economic costs and risks of the potential for under- and over-investment in a pipeline, and utilisation of a pipeline when making such decisions.[34]

In April 2020, we published our first version of the RFM and PTRM for gas pipeline service providers under new provisions in the NGR relating to financial models.[35] Gas distribution businesses are required to use these models for the purposes of their access arrangement proposals.[36] The PTRM sets out the method for calculating the forecast depreciation schedule and the approach for indexing the capital base. We have also published a separate depreciation module to the RFM that applies the year-by-year tracking depreciation approach. This module is used for calculating the depreciation of existing assets under that approach, and the output from this module will feed into the PTRM.

The regulatory depreciation approach in the PTRM involves two components:

1. A straight-line depreciation component calculated by dividing the asset value by its standard asset life (for new assets) or remaining asset life (for existing assets under the weighted average approach). We consider that the straight-line method satisfies the NGR's depreciation criteria.[37] This is because the straight-line method smooths changes in the reference tariffs, promotes efficient growth of the market, allows assets to be depreciated only once and over its economic life, and allows for a service provider's reasonable needs for cash flow.
2. An offsetting adjustment for indexation of the value of assets in the capital base. This component is necessary to prevent double counting of inflation when a nominal rate of return is applied to the inflation indexed capital base. Therefore, we remove the revaluation (indexation) gain on the capital base from the depreciation building block when setting total revenue.

The regulatory depreciation amount is an output of our PTRM. We therefore assessed the service provider's proposed regulatory depreciation amount by analysing the proposed inputs to the PTRM for calculating that amount.

Key inputs include the:

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31 NGL, s. 23.

32 NGL, s. 28(1)(a).

33 NGL, s. 28(2) The RPPs are set out in s. 24 of the NGL.

34 NGL, s. 24.

35 NGR, rr. 75A–75B.

36 NGR, r. 75A(2).

37 NGR, r. 89.

- opening capital base at the start of the access arrangement period
- forecast net capex in the next access arrangement period[38]
- indexation adjustment—based on the forecast capital base and expected inflation rate for the next access arrangement period
- standard asset life for each asset class—used for calculating the depreciation of new assets associated with forecast net capex in the next access arrangement period
- the depreciation of existing assets in the opening capital base as at the start of the access arrangement period – calculated using a separate year-by-year depreciation tracking module or the weighted average remaining life (WARL) approach.

Our decision on the service provider's regulatory depreciation amount reflects our determinations on its opening capital base, expected inflation and forecast net capex (the first three inputs in the above list).[39] Our determinations on these components of a gas pipeline service provider's proposal are discussed in sections 3.1, 3.2 and 3.4 of the draft decision, respectively.

In this attachment, we discuss our assessment of the standard asset life for each asset class. As well as the year-by-year tracking or the WARL depreciation approach to calculate depreciation of the opening capital base at the start of the access arrangement period (the last two inputs in the above list).

In general, we consider that consistency in the standard asset life for each asset class across access arrangement periods will allow reference tariffs to vary over time in a manner which would promote efficient growth in the market for reference services. Our assessment of the standard asset life of an asset class also takes into account the technical life (or the engineering designed life) and the expected economic life of the assets. We also benchmark a service provider's standard asset lives with those used by other gas service providers for similar asset classes.

Our PTRM provides for two approaches for calculating the straight-line depreciation for existing assets:

- the WARL approach: This approach calculates the remaining asset life for an asset class by weighting together its remaining asset life at the beginning of the access arrangement period with the new capex added to the asset class during that period. The residual asset values are used as weights to calculate the remaining asset life at the end of that period. The WARL for the asset classes are calculated in our RFM and are inputs to the PTRM. We consider this approach meets the depreciation criteria of the NGR.
- the 'year-by-year tracking' approach: Under this approach, the capex (in addition to grouping assets by type via asset classes) for each year of an access arrangement

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[38] Capex enters the capital base net of forecast disposals (and capital contributions where relevant). It includes equity raising costs (where relevant) and is adjusted for half-year WACC to account for the timing assumptions in the PTRM. Our decisions on the capital base therefore also reflects our updates to the WACC for the next access arrangement period.

[39] Our final decision will update the opening capital base as at 1 July 2025 for revised estimates of actual capex and inflation.

period is depreciated separately and tracked on a year-by-year basis over the assigned standard life for the asset class. This approach does not require assessment of a remaining asset life at each access arrangement review. We consider that this approach would also meet the depreciation criteria of the NGR. Our depreciation tracking module conducts the detailed calculations required under this approach. The output of this module is then recorded in the PTRM. If this approach is proposed, we will assess whether a service provider has appropriately implemented the year-by-year tracking depreciation approach, including checking the proposed inputs to this module.

A.2.1 Interrelationships

The regulatory depreciation amount is a building block component of the total revenue requirement.[40] Higher (or quicker) depreciation leads to higher revenues over the access arrangement period. It also causes the capital base to reduce more quickly (excluding the impact of further 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.[41]

Ultimately, however, a service provider can only recover the capex that it incurs on assets once. The depreciation amount reflects how quickly the capital base is being recovered, and it is based on the asset lives used in the depreciation calculation. It also depends on the level of the opening capital base and the forecast capex. Any increase in these factors also increases the depreciation amount.

Our standard approach is to maintain the capital base in real terms, meaning the capital base is indexed for expected inflation. The return on capital building block has to be calculated using a nominal rate of return or weighted average cost of capital (WACC) applied to the opening capital base.[42] The total revenue requirement is calculated by adding the return on capital, depreciation, operating expenditure (opex), tax and revenue adjustments building blocks.[43] Because inflation on the capital base is accounted for in both the return on capital (based on a nominal rate of return) and the depreciation calculations (based on an indexed capital base), an adjustment must be made to the revenue requirement to prevent compensating twice for inflation.

To avoid this double compensation, we make an adjustment by subtracting the annual indexation gain on the capital base from the calculation of total revenue. Our standard approach is to subtract the indexation of the opening capital base—the opening capital base multiplied by the expected inflation for the year—from the capital base depreciation. The net result of this calculation is referred to as regulatory depreciation (or return of capital).[44] Regulatory depreciation is the amount used in the building block calculation of total revenue

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40 The PTRM distinguishes between straight-line depreciation and regulatory depreciation, where regulatory depreciation is the straight-line depreciation less the indexation adjustment.

41 This is generally the case because the reduction in the capital base amount feeds into the higher depreciation building block, whereas the reduced return on capital building block is proportionate to the lower capital base multiplied by the WACC.

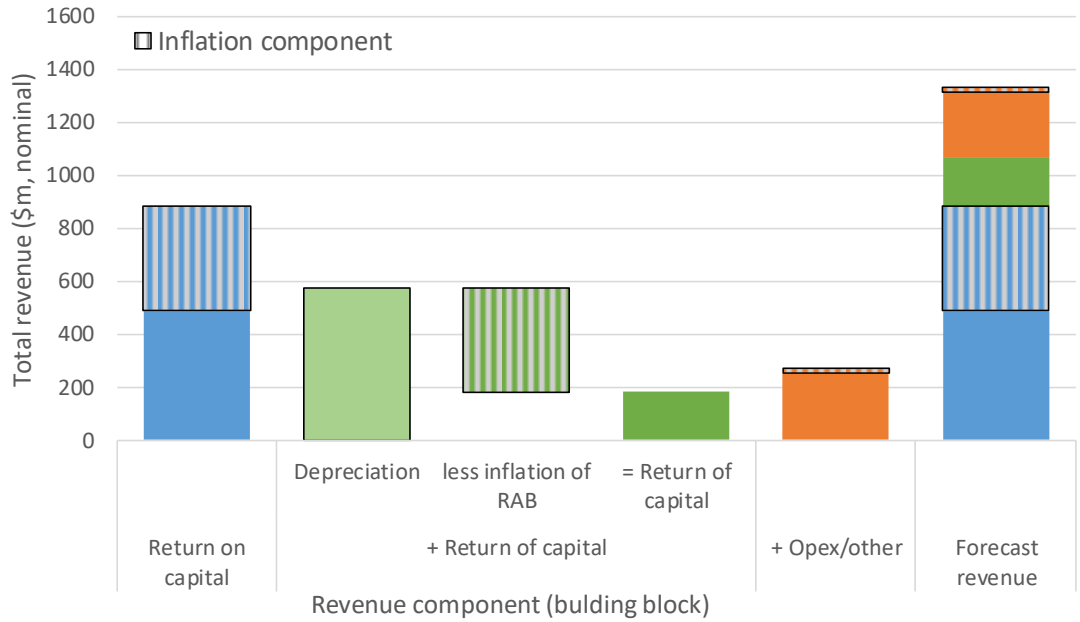
42 NGR, r. 87.

43 NGR, r. 76.

44 If the asset lives are extremely long, such that the capital base depreciation rate is lower than the inflation rate, then negative regulatory depreciation can emerge. The indexation adjustment is greater than the capital base depreciation in such circumstances.

to ensure that the revenue equation is consistent with the use of a capital base, which is indexed for inflation annually. Figure 1 shows where the inflation components are included in the building block costs.

Figure 1 Inflation components in revenue building block – example



Source: AER analysis.

This approach produces the same total revenue requirement and capital base as if a real rate of return had been used in combination with an indexed capital base. Under an alternative approach where a nominal rate of return was used in combination with an unindexed (historical cost) capital base, 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 (and therefore prices) would be higher early in the asset's life (as a result of more depreciation being returned to the service provider) and lower in the future—producing a steeper downward sloping profile of total revenue.[45] Under both approaches, the total revenues being recovered are in NPV neutral terms.

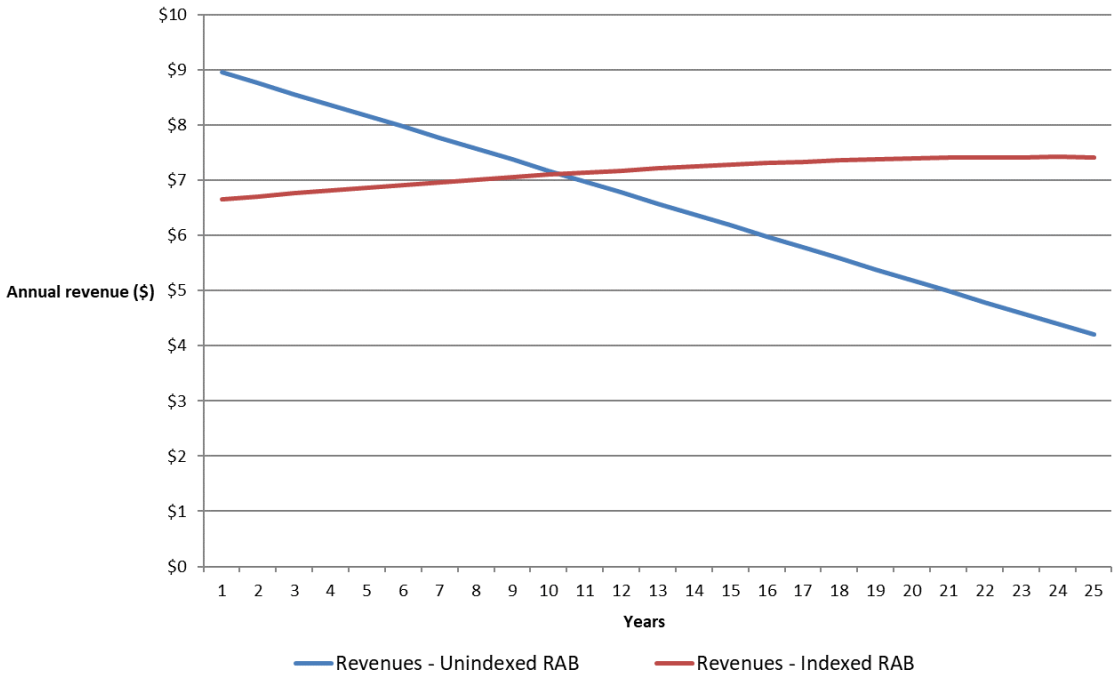
Figure 2 shows the recovery of revenue under both approaches using a simplified example.[46] Indexation of the capital base and the offsetting adjustment made to depreciation results in a smoother revenue recovery profile over the life of an asset than if the capital base was un-

[45] A change of approach from an indexed capital base to an un-indexed capital base would result in an initial step change increase in revenues to preserve NPV neutrality.

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

indexed. The indexation of the capital base also reduces price shocks when the asset is replaced at the end of its life.[47]

Figure 2 Revenue path example – indexed vs un-indexed capital base($ nominal)



Source: AER analysis.

Figure 3-1 of the draft decision shows the relative size of the inflation and straight-line depreciation, and their impact on the capital base. A 10% increase in the straight-line depreciation generally causes unsmoothed revenues ($ nominal) to increase by about 4% to 6%.

A.3 Corporate income tax – assessment approach

We make an estimate of taxable income for each regulatory year of the access arrangement period in accordance with the formula in the NGR as part of our determination of the total revenue requirement for the service provider's next access arrangement period.[48] Our estimate is the taxable income a benchmark efficient entity would earn for providing reference services if it operated the service provider's business and is determined in accordance with the PTRM.

In April 2020, we published our first versions of the RFM and PTRM for the gas pipeline service providers under the NGR.[49] The gas models have been developed using our published electricity distribution and transmission regulatory models, which incorporate

47 In year 26 the revenues in the example for the unindexed 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.

48 NGR, r. 87A.

49 NGR, r. 75A.

relevant findings from our final report on the tax review.[50] They also incorporate several amendments to account for gas specific requirements. Gas pipeline service providers are required to use the gas models for the purposes of their access arrangement proposals.[51]

In April 2021, we published version 2 of our gas distribution PTRM that applied the same regulatory tax approach as version 1, and implemented the changes set out in our final position paper on the treatment of inflation under the regulatory framework.[52]

A.3.1 Calculating estimated cost of corporate income tax in the PTRM

Our approach for calculating a gas pipeline service provider's estimated cost of corporate income tax is set out in our PTRM[53] and involves the following steps:[54]

1. We estimate the annual assessable income (taxable revenue) that would be earned by a benchmark efficient entity operating the service provider's business. This is the approved forecast revenues for the service provider that we determined using the building block approach.[55] It includes capital contributions where these are subject to taxation.
2. We then estimate the benchmark tax expenses such as opex, interest expense and tax depreciation in the following ways:
   - operating expense is set equal to the opex building block[56]
   - interest expense is a function of the size of the capital base, 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. Previously, the PTRM applied the straight-line method for calculating tax depreciation for all assets. Consistent with the findings of the 2018 tax review,[57] the PTRM applies the straight-line tax depreciation method for existing assets and the diminishing value tax depreciation method[58] for all assets acquired after implementation of the tax review findings except for in-house software, buildings (capital works) and equity raising costs. The expenditure for these assets is to be

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50 AER, *Final report: Review of regulatory tax approach, December 2018*, p. 76. The PTRM specifies the manner in which the estimated cost of corporate income tax is to be calculated. The RFM calculates the gas pipeline service provider's tax asset base which is an input to the PTRM for the calculation of the tax building block.

51 NGR, r. 75A.

52 AER, *Final position: Regulatory treatment of inflation*, December 2020, pp. 6–8; AER, *Appendix A - Amended gas distribution PTRM - April 2021,* April 2021.

53 AER, *Gas Distribution PTRM*, April 2021.

54 The PTRM must specify the manner in which the estimated cost of corporate income tax is to be calculated: NGR, r. 75B(2)(e).

55 The total revenue for tax purposes is the sum of the building blocks including return on capital, return of capital, opex, cost of corporate income tax and any applicable capital contributions. It may also include other revenue adjustments, but the assessment of whether they should give rise to a tax payable will occur on a case-by-case basis.

56 Our assessment approach for the opex building block is discussed in Attachment 3 of the draft decision.

57 AER, *Final report, Review of regulatory tax approach*, December 2018.

58 For more explanation of how we calculate depreciation using the diminishing value method, please see: AER*, Amended gas distribution PTRM handbook*, April 2021, pp. 13–14.

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 incurred.[59] 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 payable occurs on a case-by-case basis.

3. We estimate the annual taxable income that would be earned by a benchmark efficient entity operating the service provider's business by subtracting the benchmark estimates of tax expenses (step 2) from the approved forecast revenues for the service provider (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 service provider's total revenue requirement.

A.3.2 Assessing the tax inputs to the PTRM

The estimated cost of corporate income tax is an output of the PTRM. We therefore assess the service provider's proposed cost of corporate income 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 in turn below:

- **The opening TAB value as at the commencement of the next access arrangement period**: The roll forward of the opening TAB is based on the approved opening TAB at the start of the current access arrangement period and the service provider's actual/estimated capex incurred during the current access arrangement period, and the actual capex incurred in the final year of the earlier access arrangement period.[60] The roll forward of the opening TAB for the current access arrangement period is calculated in our RFM, together with the depreciation module.

  The opening TAB value at the start of the next access arrangement period and the forecast capex to be added to the TAB over the period are used to estimate forecast tax depreciation for that period. We will continue to apply the straight-line method of tax depreciation for existing assets in the opening TAB prior to the implementation of the 2018 tax review findings. However, for all assets added to the TAB after this implementation (with some exceptions discussed further below), we will apply the diminishing value method of tax depreciation.

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59 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.

60 The tax depreciation is therefore recalculated based on actual capex. The same tax depreciation approach of using actual capex applies to the roll forward of the TAB at the next distribution determination.

- **The form of customer contributions:** On 21 October 2020, the Full Federal Court of Australia published a judgment dealing with the tax treatment of capital contributions.[61] The determination:
  - Confirmed an earlier Court ruling that cash contributions were ordinary income and should be treated as assessable income for tax purposes.
  - Overturned an earlier Court ruling and determined that while a gifted asset was a 'non-cash business benefit' there was effectively nil income for tax purposes.

  We consider the Court's ruling on gifted assets requires us to exclude the cost of construction of these assets from the gross capex and capital contributions inputs to the PTRM. Consequently, this excludes gifted assets from the calculation of the estimated cost of corporate income tax building block. Capital contributions in the form of cash continue to be included in the calculation of the estimated cost of corporate income tax building block.
- **The standard tax asset life for each asset class:** Our assessment of a gas pipeline service provider's proposed standard tax asset life is generally guided by the effective life of depreciating assets determined by the Commissioner of Taxation. The Australian Taxation Office (ATO) sets a statutory life cap of 20 years on certain classes of gas transmission and distribution assets.[62] We consider that the standard tax asset lives for most asset classes should be consistent with the ATO Taxation Ruling 2022/1 regarding the effective life of depreciating assets where possible.[63]

  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.[64] We note that the tax effective lives for in-house software, buildings (capital works) 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 capital works assets 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**: The statutory income tax rate is 30% per annum for businesses of the size we regulate.

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61 Federal Court of Australia, *Victoria Power Networks Pty Ltd v Commissioner of Taxation* [2020] FCAFC 169, 21 October 2020.

62 ATO, *Taxation Ruling TR2022/1 – Income tax: effective life of depreciating assets (applicable from 1 July 2021)*, p. 179; ITAA section 40.102.

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

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

- **The value of gamma**: The gamma input is set out in the 2022 *Rate of Return Instrument*, which requires us to use a gamma value of 0.57.[65] This is discussed further in Overview section 3.2.
- **The size and treatment of any tax losses as at 1 July 2025:** Where a service provider has tax losses under our benchmark approach, we require the provision of this value to determine the appropriate estimated taxable income for the access arrangement period. If there is an amount of tax losses accumulated, the forecast taxable income for the access arrangement period will be reduced by this amount.
- **Forecast immediately expensed capex:** The PTRM requires a forecast for immediately deductible capex to be provided for each regulatory year of the next access arrangement period. Our assessment of forecast immediately expensed capex will be guided by the service provider's actual immediately expensed capex from the previous access arrangement periods.[66] We collect actual data relating to this expenditure in our annual reporting regulatory information notices (RINs) to inform our decision on the amount of forecast immediately expensed capex. Benchmarking may also be used for assessing this forecast amount.[67]
- **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 access arrangement period. We apply a diminishing value multiplier of 200% as set 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 instead of 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 equity raising costs should not be depreciated using the diminishing value method. We note that section 40.880 of the ITAA and the ATO's taxation ruling 2011/6[68] require that businesses claim deductions on equity raising costs in equal proportions over a five-year period. 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.[69] Further, the gas pipeline service provider 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

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65 AER*, Rate of Return Instrument*, February 2023, p. 9.

66 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.

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

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

69 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.[70] This includes new buildings and structural improvements to existing buildings.[71] 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 are 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.[72] This includes computer software, or the right to use computer software that the service provider acquires, develops or has someone else develop for the service provider's business use.[73] However, capex associated with other IT assets such as computer hardware is not consistent with the definition of in-house software, and therefore is required to be depreciated using the diminishing value method in the PTRM.

In assessing the service provider's proposal, we have had regard to the National Gas Objective (NGO) and the revenue and pricing principles.[74] The NGR also require that any forecast must be arrived at on a reasonable basis and must represent the best forecast or estimate possible in the circumstances.[75]

A.3.3 Interrelationships

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

- pre-tax revenues
- tax expense (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 corporate income tax payable.

Of these factors, the corporate tax rate is set externally by the Australian Government. The higher the tax rate, the higher the required tax payable.

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70 ATO, Taxation Ruling 97/25, July 2017.

71 ITAA, section 43.20.

72 ATO, Taxation Ruling 2016/3, October 2018.

73 ITAA, section 995.1.

74 National Gas Law (NGL), s. 28; NGR, r. 100(1). The NGO is set out in NGL, s. 23. The revenue and pricing principles are set out in NGL, s. 24.

75 NGR, r. 74(2).

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 payable.[76] Depending on the source of the revenue increase, the tax increase may be equal to or less than proportional to the company tax rate.[77]

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 capital base funded through debt. It also depends on the allowed return on debt and the size of the capital base.
- General expenses – these expenses generally will match the opex forecast 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 service provider, reflecting tax rules. This TAB is affected by many of the same factors as the capital base, such as capex. However, unlike the capital base value, the TAB 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 service provider that has tax expenses which are greater than its taxable revenue in a period would not be subject to pay tax and instead will generate a tax loss. A tax loss can be carried forward to offset against tax payable in future access arrangement periods.

For a service provider that does not have tax losses, a 10% increase to the cost of corporate income tax amount generally causes unsmoothed revenues ($ nominal) to increase by up to 1%.

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76 In fact, 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.

77 For example, although increased opex adds to 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 tax payable in proportion to the company tax rate.

Glossary

Term	Definition
AER	Australian Energy Regulator
APTNT	APT Pipelines (NT) Pty Limited
ATO	Australian Taxation Office
gamma	value for the utilisation of imputation credits
ITAA	Income Tax Assessment Act 1997
NGO	National Gas Objective
NGL	National Gas Law
NGR	National Gas Rules
opex	operating expenditure
RFM	roll forward model
RIN	regulatory information notice
RPP	revenue and pricing principles
TAB	tax asset base
WACC	weighted average cost of capital
WARL	weighted average remaining lives’