Draft Decision

Ergon Energy Electricity Distribution Determination 2025 to 2030
(1 July 2025 to 30 June 2030)

Attachment 4
Regulatory depreciation

September 2024

AUSTRALIAN
ENERGY
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Amendment record

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4 Regulatory depreciation

Regulatory depreciation is the amount provided so capital investors recover their investment over the economic life of the asset (return of capital). In deciding whether to approve the depreciation schedules submitted by Ergon Energy, we make determinations on the indexation of the regulatory asset base (RAB) and depreciation building blocks for Ergon Energy's 2025–30 regulatory control period (period).[1] The regulatory depreciation amount is the net total of the straight-line depreciation less the indexation of the RAB.

This attachment sets out our draft decision on Ergon Energy's regulatory depreciation amount. It also presents our draft decision on the proposed depreciation schedules, including an assessment of the proposed standard asset lives used for calculating straight-line depreciation.

4.1 Draft decision

We determine a regulatory depreciation amount of $1,263.7 million ($ nominal) for Ergon Energy for the 2025–30 period. Ergon Energy proposed a regulatory depreciation amount of $1,261.6 million ($ nominal).[2] Our draft decision represents an increase of $2.1 million (0.2%) from the proposed amount.

Our reductions to forecast capex (Attachment 5) and the opening RAB as at 1 July 2025 (Attachment 2) have reduced:

- straight-line depreciation by $144.5 million (3.8%)

- the indexation of the RAB by $146.6 million (5.7%).

The regulatory depreciation has slightly increased relative to Ergon Energy's proposal because the reduction to straight-line depreciation has been more than offset by the reduction to the indexation of the RAB. The indexation of the RAB is reduced despite a higher expected inflation rate of 2.85% per annum in our draft decision, compared to the 2.80% per annum Ergon Energy applied in its proposal (Attachment 3).[3]

For our draft decision on Ergon Energy's regulatory depreciation:

- We accept Ergon Energy's proposed straight-line depreciation method used to calculate the regulatory depreciation amount.

- We accept Ergon Energy's proposal to continue using the 'year-by-year tracking' approach for implementing straight-line depreciation of its existing assets and its forecast capex (section 4.4.1).

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[1] Clause 6.12.1 of the National Electricity Rules (NER) sets out the 'constituent decisions' we must make as part of a distribution determination. We must decide whether or not to approve the depreciation schedules submitted by a Distribution Network Service Provider (cl. 6.12.1(8)). This is one of the building blocks we must use to determine the annual revenue requirement: cl. 6.4.3 of the NER.

[2] Ergon Energy, *8.03–Model–SCS PTRM Model,* January 2024.

[3] All else being equal, a higher expected inflation increases the indexation of the RAB and therefore reduces regulatory depreciation.

- We accept Ergon Energy's proposed existing asset classes and standard asset lives. We also accept Ergon Energy's proposed new asset classes for capitalised leases of 'Initial leases' and 'Lease extensions', and their standard asset lives (section 4.4.2).

We made determinations on other components of Ergon Energy's proposal which affect the forecast regulatory depreciation—for example, the opening RAB at 1 July 2025 (Attachment 2), expected inflation (Attachment 3), and forecast capex (Attachment 5) including its effect on the projected RAB over the 2025–30 period.[4]

Table 4.1 sets out our draft decision on the annual regulatory depreciation amount for Ergon Energy's 2025–30 period.

Table 4.1   AER's draft decision on Ergon Energy's forecast depreciation for the 2025–30 period ($ million, nominal)

	2025–26	2026–27	2027–28	2028–29	2029–30	Total
Straight-line depreciation	645.3	692.7	736.2	783.3	811.0	3,668.5
Less: inflation indexation on opening RAB	443.6	462.3	480.7	499.5	518.7	2,404.8
Regulatory depreciation	**201.7**	**230.4**	**255.5**	**283.8**	**292.3**	**1,263.7**

Source: AER analysis.

4.2 Ergon Energy's proposal

For the 2025–30 period, Ergon Energy proposed a total forecast regulatory depreciation amount of $1,261.6 million ($ nominal). To calculate the depreciation amount, Ergon Energy proposed to use:[5]

- the straight-line depreciation method employed in the AER's post-tax revenue model (PTRM)

- the closing RAB value at 30 June 2025 derived from the AER's roll forward model (RFM)

- its forecast capex for the 2025–30 period

- an expected inflation rate of 2.80% per annum for the 2025–30 period

- the AER's year-by-year tracking depreciation module in the RFM, which implements the straight-line method to calculate the forecast depreciation (over the 2025–30 period) of the opening RAB at 1 July 2025[6]

- the same standard asset lives for its existing asset classes for depreciating forecast capex for the 2025–30 period, which are consistent with those approved in the 2020–25

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4   Capex enters the RAB net of forecast disposals and capital contributions. It includes equity raising costs (where relevant) and the half-year weighted average cost of capital (WACC) to account for the timing assumptions in the PTRM. Our draft decision on the RAB (Attachment 2) also reflects our updates to the WACC for the 2025–30 period.

5   Ergon Energy, *8.03–Model–SCS PTRM Model,* January 2024.

     Ergon Energy, *8.01–Model–SCS RFM Model,* January 2024.

6   Ergon Energy, *2025–30 regulatory proposal,* February 2024, p. 165.

distribution determination. Ergon Energy also proposed two new asset classes of 'Initial leases' and 'Lease extensions' for the capitalisation of lease expenditures, with standard asset lives of 10 years and 5 years respectively.

Table 4.2 sets out Ergon Energy's proposed regulatory depreciation amount for the 2025–30 period.

Table 4.2   Ergon Energy's proposed regulatory depreciation for the 2025–30 period ($ million, nominal)

	2025–26	2026–27	2027–28	2028–29	2029–30	Total
Straight-line depreciation	662.7	715.3	766.4	818.2	850.5	3,813.0
Less: inflation indexation on opening RAB	455.0	482.2	509.6	537.7	566.8	2,551.4
Regulatory depreciation	**207.6**	**233.1**	**256.8**	**280.5**	**283.7**	**1,261.6**

Source: Ergon Energy, *8.03–Model–SCS PTRM Model,* January 2024.

4.3 Assessment approach

We must determine the regulatory depreciation amount as part of determining a distributor's annual revenue requirement.[7] The calculation of depreciation in each year is governed by the value of assets included in the RAB at the beginning of the regulatory year, and by the depreciation schedules.[8]

4.3.1 Approach to determining depreciation

Our standard approach to calculating depreciation 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.[9] We must consider whether the proposed depreciation schedules conform to the following key requirements:

- the schedules must 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 assets[10]

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[7]   NER, cll. 6.4.3(a)(3) and (b)(3).

[8]   NER, cl. 6.5.5(a).

[9]   This is the standard practice for the AER, as well as other jurisdictional regulators. See for example,

    IPART, *Cost building block model template – RAB & tax inputs – Table 2*, February 2023.

    ERAWA, *Final decision on proposed revisions to the access arrangement for the Western Power Network 2022/23 – 2026/27 – Target Revenue Model,* March 2023.

    AER, *Final decision: Electricity distribution network service providers – Post-tax revenue model handbook,* April 2021, p. 15.

    AER, *Draft decision: AusNet Services transmission determination 2017-18 to 2021-22, Attachment 5 – Regulatory depreciation*, July 2016, p. 37.

[10]   NER, cl. 6.5.5(b)(1).

- the sum of the real value of the depreciation that is attributable to any 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 distribution system.[11]

To the extent that a distributor's regulatory proposal does not conform with the above requirements, we must determine the depreciation schedules for calculating the depreciation for each regulatory year.[12]

The regulatory depreciation amount is an output of the PTRM. We therefore assessed Ergon Energy's proposed regulatory depreciation amount by analysing the proposed inputs to the PTRM for calculating that amount. The key inputs include:

- the opening RAB at 1 July 2025

- the forecast net capex in the 2025–30 period[13]

- the expected inflation rate for the above period

- the standard asset life for each asset class—used for calculating the depreciation of new assets associated with forecast net capex in the above period

- the depreciation of existing assets in the opening RAB as at 1 July 2025—calculated in a separate year-by-year tracking depreciation module.

Our draft decision on Ergon Energy's regulatory depreciation amount reflects our determinations on the opening RAB at 1 July 2025, expected inflation rate and forecast capex (the first three building block components in the above list).[14] Our determinations on these components of Ergon Energy's proposal are discussed in Attachments 2, 3 and 5 respectively.

In this attachment, we assess Ergon Energy's proposed standard asset lives against:

- the approved standard asset lives in the distribution determination for the 2020–25 period

- the standard asset lives of comparable asset classes approved in our recent distribution determinations for other service providers

- the appropriate economic lives of the assets.

Our regulatory models (RFM and PTRM) provide for two approaches for calculating the straight-line depreciation of existing assets:

- The 'weighted average remaining lives' (WARL) approach: This approach calculates the remaining asset life for an asset class by weighting together its remaining asset life at

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[11]   NER, cl. 6.5.5(b)(2).

[12]   NER, cl. 6.5.5(a)(2)(ii).

[13]   Capex enters the RAB net of forecast disposals and capital contributions. It includes equity raising costs (where relevant) and is adjusted for half-year WACC to account for the timing assumptions in the PTRM. Our draft decision on the RAB (Attachment 2) also reflects our updates to the WACC for the 2025–30 period.

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

the beginning of the regulatory control 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 requirements for determining depreciation under the National Electricity Rules (NER).

- 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 the regulatory control 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 the assessment of the remaining asset life at each five-yearly distribution determination. We consider this approach also meets the requirements for determining depreciation under the NER. Our depreciation tracking module in the RFM conducts the detailed calculations required under this approach. The output of this module is then recorded in the PTRM.

Ergon Energy has proposed to continue applying the year-by-year tracking approach to calculate the straight-line depreciation of its opening RAB as at 1 July 2025. Our assessment of Ergon Energy's proposed implementation of the year-by-year tracking approach is discussed in section 4.4.1.

4.3.2 Interrelationships

The regulatory depreciation amount is a building block component of the annual revenue requirement.[15] Higher (or quicker) depreciation leads to higher revenues over the regulatory control period. It also causes the RAB 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.[16]

Ultimately, however, a distributor can only recover the capex that it incurs 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 level of the opening RAB and the 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.[17] The return on capital building block has to be calculated using a nominal rate of return applied to the opening RAB.[18] As noted in Attachment 1, the total annual revenue requirement is calculated by adding up 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

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

[16] 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 the WACC.

[17] NER, cll. 6.3.2(a)(2), 6.4.3(b)(1) and S6.2.3(c)(4).

[18] AER, *Rate of return instrument*, cll. 1, 3, 36(c), February 2023.

depreciation calculations—based on an indexed RAB—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 RAB from the calculation of total revenue. Our standard approach is to subtract the indexation of the opening RAB—the opening RAB multiplied by the expected inflation for the year—from the RAB depreciation. The net result of this calculation is referred to as regulatory depreciation.[19] 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 4.1 shows where the inflation components are included in the building block costs.

Figure 4.1   Inflation components in revenue building block – example
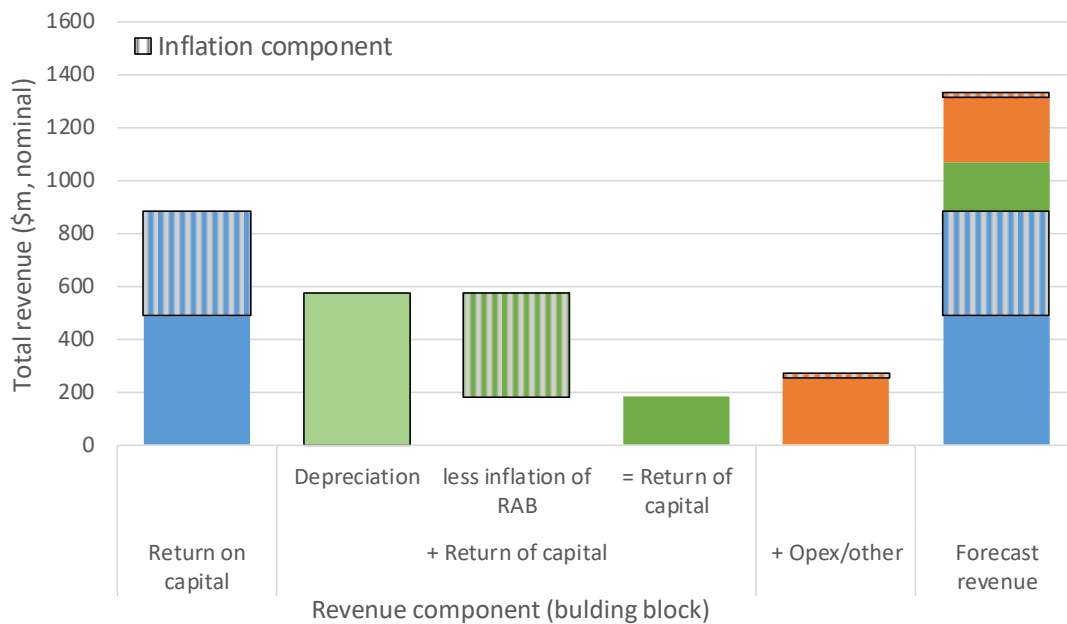
Source: AER analysis.

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 distributor) and lower in the future—producing a steeper downward sloping profile of total revenue.[20] Under both approaches, the

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19   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.

20   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 (NPV) neutrality.

total revenues being recovered are in present value neutral terms—that is, returning the initial cost of the RAB.

Figure 4.2 shows the recovery of revenue under both approaches using a simplified example.[21] 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 prices shocks when the asset is replaced at the end of its life.[22]

Figure 4.2   Revenue path example – indexed vs un-indexed RAB ($ nominal)
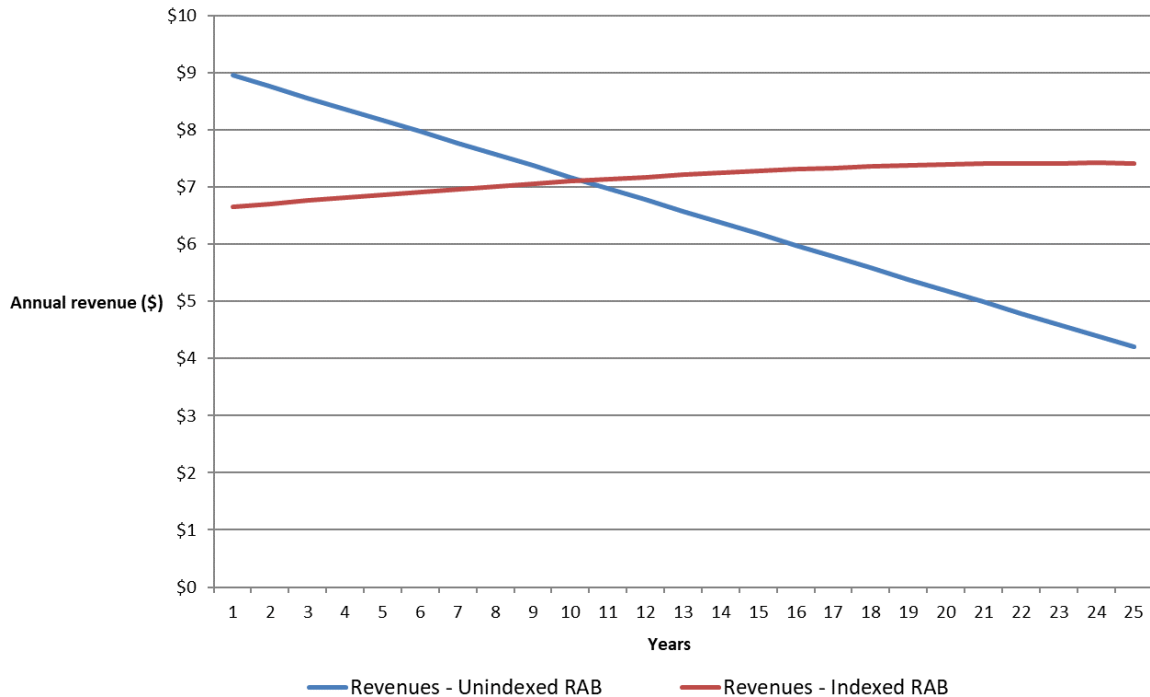
Source: AER analysis.

Figure 2.1 (in Attachment 2) shows the relative size of the inflation and straight-line depreciation, and their impact on the RAB based on Ergon Energy's proposal. A 10% increase in the straight-line depreciation causes unsmoothed revenues ($ nominal) to increase by about 4.8%.[23]

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[21]   The example is based on the initial cost of an asset of $100, a standard economic life of 25 years, a real WACC of 2.50%, expected inflation of 2.40% 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.

[22]   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.

[23]   We have analysed the sensitivity of straight-line depreciation relative to total revenue based on input data provided in Ergon Energy's proposal PTRM.

4.4 Reasons for draft decision

We accept Ergon Energy's proposed straight-line depreciation method for calculating the regulatory depreciation amount as set out in the PTRM. However, we have increased Ergon Energy's proposed forecast regulatory depreciation amount for the 2025–30 period by $2.1 million (0.2%) to $1,263.7 million ($ nominal).

Our reductions to forecast capex (Attachment 5) and the opening RAB as at 1 July 2025 (Attachment 2) have reduced both straight-line depreciation and the indexation of the RAB.

The regulatory depreciation has slightly increased relative to Ergon Energy's proposal because the reduction to straight-line depreciation has been more than offset by the reduction to the indexation of the RAB. The indexation of the RAB is reduced despite a higher expected inflation rate of 2.85% per annum in our draft decision, compared to the 2.80% per annum Ergon Energy applied in its proposal (Attachment 3).[24]

Our assessment of Ergon Energy's proposal to continue using the year-by-year tracking depreciation approach and its proposed standard asset lives are discussed in the following subsections.

4.4.1 Year-by-year tracking approach

Ergon Energy proposed to continue using the year-by-year tracking approach for calculating the straight-line depreciation of its existing assets, consistent with that approved for its current regulatory control period.[25]

For our draft decision, we accept Ergon Energy's proposed year-by-year tracking approach meets the requirements of the NER in that it will result in depreciation schedules that:[26]

- reflect the nature of the assets and their economic life

- ensure that total depreciation (in real terms) equals the initial value of the assets

- allow the economic lives of existing assets to be consistent with those determined on a prospective basis in our 2020–25 distribution determination.

Ergon Energy used our depreciation module in the RFM to implement year-by-year tracking. We have reviewed Ergon Energy's application of this module and updated the following inputs to be consistent with the RFM:

- the actual Consumer Price Index (CPI) for 2023–24 with the 2023 December quarter CPI published by the Australian Bureau of Statistics, which became available after Ergon Energy submitted its proposal. The estimated CPI for 2024–25 has also been updated with the latest forecast inflation published in the Reserve Bank of Australia's August 2024 *Statement on Monetary Policy*[27]

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[24] All else being equal, a higher expected inflation increases the indexation of the RAB and therefore reduces regulatory depreciation.

[25] AER*, Final decision: Ergon Energy Distribution Determination 2020 to 2025, attachment 4 – Regulatory depreciation*, June 2020, p. 5.

[26] NER, cl. 6.5.5(b).

[27] RBA, *Statement on Monetary Policy, Table 3.1: Detailed Forecast Table*, August 2024, p. 57.

- the weighted average cost of capital (WACC) for 2023–25. This update is required to reflect the updated CPI and the 2024–25 return on debt update in the PTRM for the 2020–25 period, which became available after Ergon Energy submitted its proposal

- the lease costs being rolled into the RAB at the end of the 2020–25 period to reflect more up-to date WACC values

- updates to 2020–23 IT capex reflecting Ergon Energy's proposed exclusion of non-network IT capex overspend[28]

- updates to 2018–23 capex following our ex-post review (Attachment 5)

- other minor updates including 2019–23 capex corrections to be consistent with the annual reporting Regulatory Information Notices (RINs) and revisions for motor vehicle disposals over 2023–25 to reflect gross proceeds.[29]

We have also made several input updates to the depreciation tracking module including for CPI, WACC and capex to be consistent with those approved in Ergon Energy's previous determinations and annual RINs.

4.4.2 Standard asset lives

We accept Ergon Energy's proposed standard asset lives for its existing asset classes in respect of the forecast capex to be incurred in the 2025–30 period. We also accept the proposed two new asset classes for capitalised leases and their standard asset lives.

We consider that Ergon Energy's proposed standard asset lives for existing asset classes remain appropriate for the 2025–30 period. This is because they are consistent with those approved for the 2020–25 period and are largely comparable with the standard asset lives used by other network businesses for similar asset classes.

Ergon Energy proposed two new asset classes for capitalised leases to give effect to a change in accounting standards (AASB 16). The proposed new asset classes and the standard asset lives are:

- 'Initial leases' (10 years standard asset life) – This asset class covers Ergon Energy's existing office sites.

- 'Lease extensions' (5 years standard asset life) – This asset class covers Ergon Energy's extension of leases for its existing office sites as noted above.

We accept Ergon Energy's proposed two new asset classes and their standard asset lives. We consider the proposed standard asset lives reflect the expected duration for these lease types. Therefore, we are satisfied that the proposed standard asset lives reasonably reflect the nature of the assets over the expected economic lives of these asset classes.

Ergon Energy has also proposed a remaining asset life of 4.3 years to the new 'Initial leases' asset class for depreciating the value of existing leases. We are satisfied that Ergon Energy's

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28   Ergon Energy, *Response to AER information request #040*, 4 June 2024, p. 7.

29   Ergon Energy, *Response to AER information request #010*, 23 April 2024, p. 1; Ergon Energy, *Response to information request #040*, 4 June 2024, p. 7; Ergon Energy, *Response to a follow up on AER information request #027*, 28 May 2024.

proposal reflects the weighted average remaining asset life of its existing leases as at 30 June 2025. For our draft decision, we updated the proposed total lease costs rolled into Energex's RAB and in turn its remaining asset life to reflect more up-to-date WACC values.[30]

The standard asset life for the 'Equity raising costs' asset class needs to be reviewed each regulatory control period. We consider the standard asset life for this asset class should reflect the lives of the mix of assets making up the approved forecast net capex, because the equity raising cost benchmark is associated with that forecast.[31] However, consistent with Ergon Energy's proposal, no equity raising costs have been determined in our draft decision modelling. This is because Ergon Energy does not satisfy the PTRM requirements to incur benchmark equity raising costs associated with the approved forecast capex. Accordingly, we record the standard asset life as 'not applicable' in the PTRM for this draft decision.

Table 4.3 sets out our draft decision on Ergon Energy's standard asset lives for the 2025–30 period. We are satisfied that:[32]

- the standard asset lives and depreciation approach more broadly would lead to a depreciation schedule that reflects the nature of the assets over the economic lives of the asset classes, and
- the sum of the real value of the depreciation attributable to the assets is equivalent to the value at which the assets were first included in the RAB for Ergon Energy.

Table 4.3   AER's draft decision on Ergon Energy's standard asset lives as at 1 July 2025 (years)

Asset class	Standard asset life
Overhead sub-transmission lines	55.0
Underground sub-transmission cables	45.0
Overhead distribution lines	50.0
Underground distribution cables	60.0
Distribution equipment	35.0
Substation bays	45.0
Substation establishment	60.0
Distribution substation switchgear	45.0
Zone transformers	50.0
Distribution transformers	45.0

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[30]   The remaining asset life for existing leases remains at 4.3 years (rounded) after our update of the WACC for this draft decision.

[31]   For this reason, we used forecast net capex as the weights to establish the weighted average standard asset life for amortising equity raising costs.

[32]   NER, cll. 6.5.5(b)(1)–(2).

Asset class	Standard asset life
Low voltage services	35.0
Metering	25.0
Communications - pilot wires	35.0
Land & easements (system) - combined	n/a
Land improvements	40.0
Control centre - SCADA	7.0
Other equipment	40.0
Generation assets	30.0
Motor vehicles	10.0
Plant & equipment	10.0
Buildings	40.0
Office equipment & furniture	7.0
Initial leases (10yr life)	10.0
Lease extensions (5yr life)	5.0
Land & easements - combined	n/a
Communications	30.0
IT systems	5.0
ICT legacy assets	n/a
In-house software	5.0
Buildings - capital works	40.0
Equity raising costs[a]	n/a

Source: AER analysis.

(a)   For this draft decision, the forecast capex determined for Ergon Energy does not meet a level to trigger any benchmark equity raising costs.

n/a   not applicable. We have not assigned a standard asset life to the 'Land & easements (system) – combined' and 'Land & easements – combined' asset classes because the capex allocated to them are not subject to depreciation. We also have not assigned a standard asset life to the asset class of 'ICT legacy assets' because there is no forecast capex allocated to this asset class.

Shortened forms

Term	Definition
AER	Australian Energy Regulator
capex	capital expenditure
CPI	consumer price index
ERAWA	Economic Regulation Authority Western Australia
IPART	Independent Pricing and Regulatory Tribunal
NER	National Electricity Rules
NPV	net present value
opex	operating expenditure
PTRM	post-tax revenue model
RAB	regulatory asset base
RIN	regulatory information notice
RFM	roll forward model
WACC	weighted average cost of capital
WARL	weighted average remaining lives