Combined Proposal 2024-2029

Attachment 5
Regulatory depreciation

Outline: This attachment to TasNetworks' Combined Proposal sets out TasNetworks' proposed approach to determining regulatory depreciation for the 2019-2024 and 2024-2029 regulatory control periods.

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Note

This attachment forms part of TasNetworks' Combined Proposal for the 2024-2029 regulatory control period and should be read in conjunction with the other parts of the proposal. TasNetworks' Combined Proposal is made up of the documents and attachments listed below, as well as the supporting documents that are listed in Attachment 23.

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Attachment 2	Annual revenue requirement
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5 Regulatory depreciation

5.1 Introduction

Depreciation is the term used to describe the reduction in the value of assets that occurs over time due to factors such as wear and tear and obsolescence. The accumulated depreciation relating to a particular asset represents how much of the asset's value has been used. Depreciation allows for the return of capital to the owners of electricity networks over the life of the assets that make up a network service provider's regulatory asset base (**RAB**).

Clause 6.4.3 of the National Electricity Rules (**NER**) provides that the annual revenue requirement for a distribution network service provider (**DNSP**) in each regulatory year of a relevant regulatory control period must be determined using a building block approach, which includes a component for depreciation in that year, calculated pursuant to clause 6.5.5 of the Rules. Clause 6A.6.3 of the NER sets out a similar provision for transmission network service providers (**TNSPs**).

As explained in Attachment 3 Regulatory asset base, the RAB is indexed for inflation. A nominal Weighted Average Cost of Capital (**WACC**) is applied to the RAB to calculate the return on capital. This could lead to the double-counting of the change in the RAB value for inflation. To avoid this, the NER also requires the RAB indexation amount to be deducted from the annual revenue requirement.[1] In the AER's post-tax revenue model (**PTRM**) (for distribution and transmission), this indexation amount is deducted from depreciation. That net amount is termed 'regulatory depreciation'.

5.2 Rule requirements

Clause 6.5.5 sets out the requirements in calculating depreciation for DNSPs, which is based on the opening value of the RAB at the beginning of each regulatory year. This includes the requirements in relation to the depreciation schedule that is applied for each asset or category of assets, which is based on "a profile that reflects the nature of the assets or category of assets over the economic life of that asset or category of assets".[2]

Similar provisions apply for TNSPs, contained in clause 6A.6.3 of the NER. Clause 6A.6.3(c) further provides that to the extent that an asset (or group of assets) in the RAB is/are dedicated to one transmission network user (or a small group of users but not a DNSP), and where the indexed value of the asset/s at the start of the regulatory control period is greater than $20 million, then the asset/s must be depreciated on a straight-line basis. This is to occur over the life of the asset/s when first included in the RAB.

Clause S6.1.3(12) of the NER requires that a building block revenue proposal must include the depreciation schedules nominated by a DNSP for the purposes of Clause 6.5.5, and that those schedules must use a well-accepted approach to categorising assets (e.g., by asset class or category driver). Clause S6.1.3(12) also specifies that DNSPs need to provide details of the amounts, values and other inputs used to compile those depreciation schedules and demonstrate that schedules conform with the requirements of clause 6.5.5(b). Clause S6A.1.3(7) of the NER prescribes the same requirements for a TNSP's regulatory proposal.

1 NER, cl.6.4.3(b)(1)(ii); cl. 6A.5.4(b)(1)(ii).

2 NER, cl.6.5.5(b)(1).

Clause 6.8.1(b)(2)(ix) of the NER also requires that the AER's Final Framework and Approach[3] paper applying in respect of a distribution determination will set out, amongst other things, whether depreciation for establishing the RAB for a distribution system as at the commencement of the next regulatory control period is to be based on actual or forecast capital expenditure.[4] The same requirement applies to a transmission determination, pursuant to clause 6A.10.1A(b)(6).[5]

Consistent with its approach for TasNetworks' distribution network, the AER used forecast depreciation to set the opening RAB for TasNetworks' transmission network at the start of the 2019-2024 regulatory control period, as well as at the start of the forthcoming 2024-2029 regulatory control period.

The NER do not prescribe a method for calculating depreciation. However, the AER has set out its preferred methodology in the PTRM. Under the methodology, straight-line depreciation is applied using standard asset lives for each regulatory asset class. It is noted that straight-line depreciation is a well-established method used to reflect the decline in the service potential of an asset over its economic life.

TasNetworks has used the AER's current PTRM without amendment to calculate the depreciation component of regulatory depreciation. Regulatory depreciation for each of TasNetworks' distribution and transmission network RABs has been calculated by:

- determining nominal straight-line depreciation and then
- deducting the CPI indexation for each asset class in each RAB.

The calculation of each of these elements is set out below.

5.3 Depreciation methodology

5.3.1 Forecast straight-line depreciation – distribution network

New assets have been depreciated on a straight-line basis according to the AER-approved standard lives for each asset class. Existing assets have been depreciated over their remaining asset lives. The standard lives for each asset class are set out in section 5.5.

Opening asset values at 1 July 2024 have been calculated by applying the AER's current roll forward model (**RFM**). This was set out in section 3.4.2 of Attachment 3 Regulatory asset base. As noted in section 3.4.2 of Attachment 3, the opening RAB at 1 July 2024 is based on a forecast for the last two years of the current regulatory control period.

5.3.2 Forecast straight-line depreciation – transmission network

New assets have been depreciated on a straight-line basis according to the AER-approved standard lives for each asset class. Existing assets have been depreciated over their remaining asset lives. The standard lives for each asset class are set out in section 5.5.

Opening asset values at 1 July 2024 have been calculated by applying the AER's current RFM. This was set out in section 3.5.2 of Attachment 3. As noted in section 3.5.2 of Attachment 3, the opening RAB at 1 July 2024 is based on a forecast for the last two years of the current regulatory control period.

5.3.3 Application of forecast depreciation

As noted above, in its Final Framework and Approach paper the AER must nominate if it will use forecast or actual depreciation in establishing the RAB for each network at the commencement of the subsequent regulatory control period.

The AER used forecast deprecation to set the opening RAB for TasNetworks' transmission and distribution networks at the start of the 2019-2024 regulatory control period and has also determined that it will use this to establish the RAB at the start of the forthcoming 2024-2029 regulatory control period. In its Framework and Approach paper, the AER has also proposed using forecast depreciation to establish the RAB at the commencement of the subsequent 2029-2034 regulatory control period.

3 AER, *Final Framework and Approac*h for TasNetworks for the 2024-29 regulatory control period, July 2022

4 This decision is to have regard to the requirements specified in clause S6.2.2.B.

5 The requirements for the AER's determination are contained in clause S6A.2.2B.

5.4 Year-by-year tracking

TasNetworks continues to use the year-by-year tracking method for depreciating existing transmission and distribution assets, which was approved by the AER for the 2019-2024 regulatory control period.[6] The year-by-year tracking method captures the timing of new additions for each asset class in the relevant year, which provides more granular and accurate information on remaining asset lives. These calculations are made in a separate depreciation model and the depreciation amounts are substituted directly into the PTRM. Both these models are supplied as supporting documents to this Combined Regulatory Proposal.

The use of the standard asset lives set out in the depreciation model gives rise to a depreciation schedule that reflects the economic lives of the relevant asset classes, consistent with the requirements of the NER.

5.5 Standard asset lives

TasNetworks has adopted asset classes and standard and remaining asset lives in accordance with good engineering practice and our own financial records. The asset classes and standard lives are unchanged from those accepted by the AER in its transmission and distribution determinations for TasNetworks for the 2019-2024 regulatory control period.

5.5.1 Distribution asset lives

The table below sets out the standard asset lives for distribution assets by asset class.

Table 1. Standard distribution asset lives

Asset type	Standard asset life (years)
Overhead Sub-transmission Lines (Urban)	50
Underground Sub-transmission Lines (Urban)	60
Urban Zone Substations	40
Rural Zone Substations	40
SCADA	10
Distribution Switching Stations (Ground)	40
Overhead High Voltage Lines Urban	35
Overhead High Voltage Lines Rural	35
Voltage Regulators on Distribution Feeders	40
Underground High Voltage Lines	60
Underground High Voltage Lines SWER	60
Distribution Substations HV (Pole)	40
Distribution Substations HV (Ground)	40
Distribution Substations LV (Pole)	40
Distribution Substations LV (Ground)	40
Overhead Low Voltage Lines Underbuilt Urban	35
Overhead Low Voltage Lines Underbuilt Rural	35
Overhead Low Voltage Lines Urban	35
Overhead Low Voltage Lines Rural	35
Underground Low Voltage Lines	60
Underground Low Voltage Common Trench	60
HVST Service Connections	40
HV Service Connections	40
HV Metering CA Service Connections	40

6 Australian Energy Regulator, Final Decision, TasNetworks Distribution Determination 2019 to 2024 – Attachment 4 Regulatory Depreciation, April 2019; Final Decision, TasNetworks Transmission Determination 2019 to 2024 – Attachment 4 Regulatory Depreciation, April 2019

Asset type	Standard asset life (years)
HV/LV Service Connections	40
Business LV Service Connections	35
Business LV Metering CA Service Connections	25
Domestic LV Service Connections	35
Domestic LV Metering CA Service Connections	20
Motor Vehicles	6
Minor Assets	5
Non-System Property	40
Business Management Systems	10
Land	NA
Easements	NA

5.5.2 Transmission asset lives

The table below sets out the standard asset lives for transmission assets by asset class.

Table 2. Standard transmission asset lives

Asset type	Standard asset life (years)
Transmission line assets – long life	60
Transmission line assets – medium life	45
Transmission line assets – short life	10
Substation assets – long life	60
Substation assets – medium life	45
Substation assets – short life	15
Protection and control – short life	15
Protection and control – short life	4
Transmission operations – short life	10
Transmission operations – short life	4
Other – medium life	40
Other – short life	9
Other – short life	4
Land and Easements	NA
Communication assets – long life	45
Communication assets – medium life	10
Communication assets – short life	5

5.6 Forecast depreciation 2024–2029

Based on the depreciation methodology described in section 5.3, and applying the standard assets lives set out in section 5.5, forecast regulatory depreciation for TasNetworks' distribution and transmission networks is presented below.

Table 3. Forecast regulatory depreciation – distribution network (nominal, $ million)

Regulatory year	2024-25	2025-26	2026-27	2027-28	2028-29
Forecast straight-line depreciation	136.3	145.4	157.1	163.6	164.3
Less					
RAB indexation	74.4	77.8	81.4	84.1	86.8
Regulatory depreciation	**61.9**	**67.6**	**75.7**	**79.5**	**77.6**

Table 4. Forecast regulatory depreciation – transmission network (nominal, $ million)

Regulatory year	2024-25	2025-26	2026-27	2027-28	2028-29
Forecast straight-line depreciation	73.0	73.7	77.8	80.5	84.3
Less					
RAB indexation	58.9	60.2	62.2	63.9	65.6
Regulatory depreciation	**14.2**	**13.5**	**15.6**	**16.6**	**18.7**

5.7 Tax depreciation

For the purposes of calculating the estimated cost of corporate income tax pursuant to clauses 6.5.3 (distribution) and 6A.6.4 (transmission) of the NER, TasNetworks is required to calculate tax depreciation. Under Australian taxation law different asset lives apply for tax purposes than the asset lives used for the calculation of regulatory depreciation.

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