

# Draft decision

**Jemena Gas Networks (NSW) access  
arrangement 2025 to 2030  
(1 July 2025 to 30 June 2030)**

**Attachment 4 – Regulatory depreciation**

**November 2024**

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### **Amendment record**

<b>Version</b>	<b>Date</b>	<b>Pages</b>
1	29 November 2024	26

## List of attachments

This attachment forms part of our draft decision on the access arrangement that will apply to Jemena Gas Networks (NSW) for the 2025–30 access arrangement period. It should be read with all other parts of this draft decision.

The draft decision includes the following documents:

Overview

Attachment 1 – Services covered by the access arrangement (no attachment - covered in the Overview)

Attachment 2 – Capital base

Attachment 3 – Rate of return

Attachment 4 – Regulatory depreciation

Attachment 5 – Capital expenditure

Attachment 6 – Operating expenditure

Attachment 7 – Corporate income tax

Attachment 8 – Efficiency carryover mechanism

Attachment 9 – Reference tariff setting

Attachment 10 – Reference tariff variation mechanism

Attachment 11 – Non-tariff components

Attachment 12 – Demand

Attachment 13 – Capital expenditure sharing scheme

## Contents

<b>List of attachments</b> .....	<b>iii</b>
<b>4 Regulatory depreciation</b> .....	<b>1</b>
4.1 Draft decision.....	1
4.2 JGN's proposal .....	3
4.3 Assessment approach .....	3
4.4 Reasons for draft decision .....	10
4.5 Revisions .....	25
<b>Glossary</b> .....	<b>26</b>

## 4 Regulatory depreciation

Depreciation is a method used in our determination to allocate the cost of an asset over its useful life. It is the amount provided so capital investors recover their investment over the economic life of the asset (otherwise referred to as ‘return of capital’). When determining the total revenue for Jemena Gas Networks’ (JGN) distribution network in NSW, we include an amount for the depreciation of the projected capital base.<sup>1</sup> Under the building block framework, regulatory depreciation consists of the net total of the straight-line depreciation less the indexation of the capital base.

This attachment outlines our draft decision on JGN’s annual regulatory depreciation amount for the 2025–30 access arrangement period (2025–30 period). Our consideration of specific matters that affect the estimate of regulatory depreciation is also outlined in this attachment. These include:

- the standard asset lives for depreciating new assets associated with forecast capital expenditure (capex)
- year-by-year tracking approach to depreciating assets in the capital base
- proposed accelerated depreciation relating to uncertainty around the future usage of its gas distribution network.

### 4.1 Draft decision

We determine a regulatory depreciation amount of \$542.1 million (\$ nominal) for JGN for the 2025–30 period. This represents a reduction of \$175.3 million (24.4%) from JGN’s proposed regulatory depreciation amount of \$717.4 million (\$ nominal).

This reduction is primarily due to our draft decision on a lower accelerated depreciation amount for the 2025–30 period. We accept JGN’s proposal for accelerated depreciation regarding the uncertainty for the future usage of its distribution network in NSW. However, we have determined a lower amount of \$156 million compared to the \$300 million proposed by JGN. This is discussed in 4.4.1.

We made amendments to other components of JGN’s proposal which also contributed to the reduction to the regulatory depreciation amount. Discussed in other attachments to this draft decision, these amendments include a lower opening capital base at 1 July 2025 (Attachment 2), a higher expected inflation (Attachment 3)<sup>2</sup> and a lower forecast capex (Attachment 5).<sup>3</sup>

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<sup>1</sup> NGR, r. 76(b).

<sup>2</sup> We adopted a higher expected inflation rate in our draft decision compared to JGN’s proposal, which has increased the inflation indexation of the capital base that is offset against straight-line depreciation in determining regulatory depreciation.

<sup>3</sup> Capex enters the capital base net of forecast disposals (and capital contributions where relevant). It includes equity raising costs (where relevant) and the half-year WACC to account for the timing assumptions in the AER’s PTRM. Our draft decision on the capital base (Attachment 2) also reflects our updates to the WACC for the 2025–30 period.

In coming to this decision on JGN’s regulatory depreciation:

- We accept JGN’s proposed straight-line depreciation method used to calculate the regulatory depreciation amount, including the continuation of the ‘year-by-year tracking’ depreciation approach (section 4.4.1).
- We accept JGN’s proposed asset classes and standard asset lives for its existing asset class.

We also accept JGN’s proposed new ‘Future of gas MP Services’ asset class with a remaining asset life as at 1 July 2025 of 5 years reflecting our draft decision to allow accelerated depreciation for the 2025–30 period only (section 4.4.1). We also make a minor amendment to the remaining asset life at 30 June 2025 for the reallocated assets from the ‘MP Services’ asset class which are subject to accelerated depreciation in the final year asset adjustment section of the RFM.<sup>4</sup> JGN has agreed with this amendment in its response to our information request.<sup>5</sup>

Table 4.1 sets out our draft decision on JGN’s regulatory depreciation amount over the 2025–30 period.

**Table 4.1 AER’s draft decision on JGN’s forecast depreciation for the 2025–30 period (\$ million, nominal)**

	2025–26	2026–27	2027–28	2028–29	2029–30	Total
Straight-line depreciation	200.1	210.6	222.6	233.5	243.0	1,109.8
Less: Inflation on opening capital base	110.1	112.5	114.4	115.4	115.4	567.7
<b>Regulatory depreciation</b>	<b>90.0</b>	<b>98.1</b>	<b>108.2</b>	<b>118.1</b>	<b>127.6</b>	<b>542.1</b>

Source: AER analysis.

<sup>4</sup> We have recalculated a remaining life of 35.3 years from JGN’s proposed 35.0 years to reflect the standard approach set out in our RFM template. Increasing the remaining asset life for the assets to be reallocated from the existing ‘MP Services’ asset class reduces the negative final year asset adjustment straight-line depreciation schedule and increases the existing ‘MP Services’ straight-line depreciation schedule by \$0.4 million (\$2024–25).

<sup>5</sup> JGN, *Email response to AER IR#003*, dated 20 August 2024, p. 1.

## 4.2 JGN’s proposal

JGN proposed a total forecast regulatory depreciation amount of \$717.4 million (\$ nominal) for the 2025–30 period, as set out in Table 4.2.

**Table 4.2 JGN’s proposed forecast depreciation for the 2025–30 period (\$ million, nominal)**

	2025–26	2026–27	2027–28	2028–29	2029–30	Total
Straight-line depreciation	229.9	241.6	255.4	268.4	280.3	1,275.5
Less: inflation on opening capital base	108.0	110.0	112.5	113.9	113.8	558.1
<b>Regulatory depreciation</b>	<b>121.9</b>	<b>131.6</b>	<b>142.9</b>	<b>154.5</b>	<b>166.5</b>	<b>717.4</b>

Source: JGN, *Att 7.6.2M – PTRM – Step 2*, June 2024.

To calculate the depreciation amount, JGN proposed to use:

- the straight-line depreciation method employed in the AER's post-tax revenue model (PTRM)
- the closing capital base value as 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 2.79% per annum for the 2025–30 period
- the AER’s amended year-by-year tracking depreciation model, which implements the straight-line method to calculate the forecast depreciation (over the 2025–30 period) of the opening capital base at 1 July 2025
- 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 access arrangement
- a new ‘Future of gas MP Services’ asset class and an asset life of 5 years for the purposes of its proposed \$300 million accelerated depreciation.

## 4.3 Assessment approach

In its 2025–30 access arrangement proposal, JGN must provide a forecast depreciation schedule for the 2025–30 period. 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.<sup>6</sup> It may consist of several separate schedules, each relating to a particular asset or class of asset.<sup>7</sup>

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 National Gas

<sup>6</sup> NGR, r. 88(1).

<sup>7</sup> NGR, r. 88(2).

Rules (NGR). The depreciation criteria<sup>8</sup> 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<sup>9</sup>
- so that each asset or group of assets is depreciated over the economic life of that asset or group of assets<sup>10</sup>
- 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<sup>11</sup>
- so that (subject to the rules about capital redundancy), an asset is depreciated only once,<sup>12</sup> and
- so as to allow for the service provider's reasonable needs for cash flow to meet financing, non-capital and other costs.<sup>13</sup>

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.<sup>14</sup>

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.<sup>15</sup>

Our assessment takes into account revenue and pricing principles (RPP) and seeks to promote the National Gas Objective (NGO).<sup>16</sup> 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 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.<sup>17</sup> 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.<sup>18</sup> 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.<sup>19</sup> This includes 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

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<sup>8</sup> NGR, r. 89.

<sup>9</sup> NGR, r. 89(1)(a)

<sup>10</sup> NGR, r. 89(1)(b).

<sup>11</sup> NGR, r. 89(1)(c).

<sup>12</sup> NGR, r. 89(1)(d)

<sup>13</sup> NGR, r. 89(1)(e).

<sup>14</sup> NGR, r. 89(2).

<sup>15</sup> NGR, r. 74(2).

<sup>16</sup> NGL, s. 28; NGR r. 68B(1).

<sup>17</sup> NGL, s. 23.

<sup>18</sup> NGL, s. 28(1)(a).

<sup>19</sup> NGL, s. 28(2).



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.<sup>20</sup>

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.<sup>21</sup> Gas distribution businesses are required to use these models for the purposes of their access arrangement proposals. 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.<sup>22</sup> 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 JGN's proposed regulatory depreciation amount by analysing the proposed inputs to the PTRM for calculating that amount. Key inputs include the:

- opening capital base at 1 July 2025
- forecast net capex in the 2025–30 period<sup>23</sup>
- indexation adjustment—based on the forecast capital base and expected inflation rate for the 2025–30 period
- standard asset life for each asset class—used for calculating the depreciation of new assets associated with forecast net capex in the 2025–30 period

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<sup>20</sup> NGL, s. 24.

<sup>21</sup> NGR, rr. 75A–75B.

<sup>22</sup> NGR, r. 89.

<sup>23</sup> Capex enters the capital base net of forecast disposals (and capital contributions where relevant). It includes equity raising costs (where relevant) and the half-year WACC to account for the timing assumptions in the AER's PTRM. Our draft decision on the capital base (Attachment 2) also reflects our updates to the WACC for the 2025–30 period.

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

Our draft decision on JGN’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).<sup>24</sup> Our determinations on these components of JGN’s proposal are discussed in Attachments 2, 3 and 5, respectively. In this Attachment 4, we discuss our assessment on the proposed standard asset life for each asset class and the year-by-year tracking depreciation approach to calculate depreciation of the opening capital base at 1 July 2025 (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 on standard asset life of an asset class also takes into account the technical life (or the engineering designed life) of the assets associated with the asset class. We also benchmark JGN’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 the 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 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 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.

JGN has proposed to continue applying the year-by-year tracking depreciation approach and its proposal includes the depreciation tracking module. Therefore, we must assess whether JGN has appropriately implemented the year-by-year tracking depreciation approach, including checking the proposed inputs to this module. Our assessment on this aspect of JGN’s proposal is discussed in section 4.4.2.

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<sup>24</sup> Our final decision will update the opening capital base as at 1 July 2025 for revised estimates of actual capex and inflation.

### Accelerated depreciation – stranded asset risk

JGN’s proposal included accelerated depreciation of assets which relates to uncertainty of future gas demand for its network. Our Information paper on Regulating gas pipelines under uncertainty explored various options to manage demand uncertainty. It concluded that accelerated depreciation remains the most accessible regulatory tool we currently have to reduce asset stranding risk arising from demand uncertainty in the gas sector. This is because adjusting depreciation offers the greatest flexibility in responding to new information in the future if the natural gas substitution pathways or actual demand turn out to be different than expected. Unlike other options explored, it does not lock in a price change permanently which avoids windfall gains or losses to either the regulated businesses or consumers.<sup>25</sup>

While accelerated depreciation can be used to reduce stranded asset risk to some degree, it must be carefully considered. The level of accelerated depreciation should reflect the specific circumstances of the regulated business, and more importantly, the scale of price adjustments should be reasonably made without creating price shocks. Our assessment approach for this aspect of JGN’s proposal (section 4.4.1) has regard to our Information paper on Regulating gas pipelines under uncertainty, which includes considerations of stranded asset risk in the long term, price stability in the 2025–30 period and stakeholders submissions.<sup>26</sup>

#### 4.3.1 Interrelationships

The regulatory depreciation amount is a building block component of the total revenue requirement.<sup>27</sup> 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 new capex being added to the capital base). This reduces the return on capital amount, although this impact is usually smaller than the increased depreciation amount in the short to medium term.<sup>28</sup> Over the life of the assets, the total revenues being recovered are in net present value (NPV) neutral terms—that is, returning the initial cost of the capital base.

Ultimately, however, a service provider can only recover the capex that it incurred on assets once.<sup>29</sup> The depreciation amount reflects how quickly the capital base is being recovered and is based on the remaining and/or standard 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

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<sup>25</sup> AER, *Regulating gas pipelines under uncertainty – Information paper*, November 2021, p. 44.

<sup>26</sup> AER, *Regulating gas pipelines under uncertainty – Information paper*, November 2021.

<sup>27</sup> The PTRM distinguishes between straight-line depreciation and regulatory depreciation, the difference being that regulatory depreciation is the straight-line depreciation minus the indexation amount on the projected capital base.

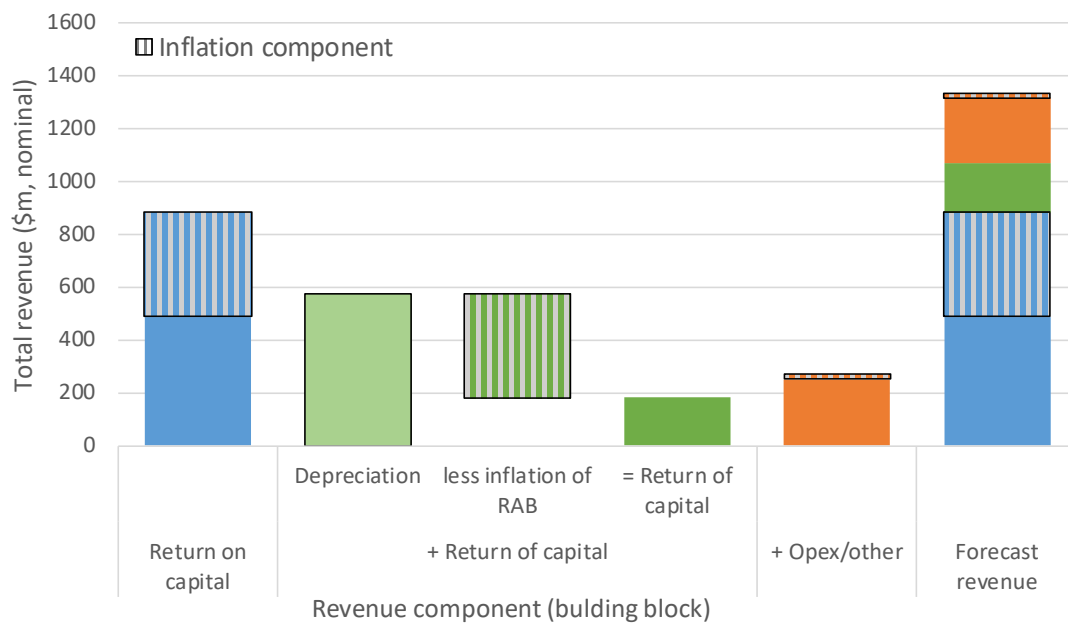
<sup>28</sup> This is generally the case because the reduction in the capital base amount feeds into the higher depreciation building block, whereas the reduced return on capital building block is proportionate to the lower capital base multiplied by the WACC.

<sup>29</sup> NGR, r. 89(1)(d).

using a nominal rate of return or weighted average cost of capital (WACC) applied to the opening capital base.<sup>30</sup> The total revenue requirement is calculated by adding the return on capital, depreciation, operating expenditure (opex), tax and revenue adjustments building blocks.<sup>31</sup> 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).<sup>32</sup> 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 capital base, 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 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

<sup>30</sup> NGR, r. 87.

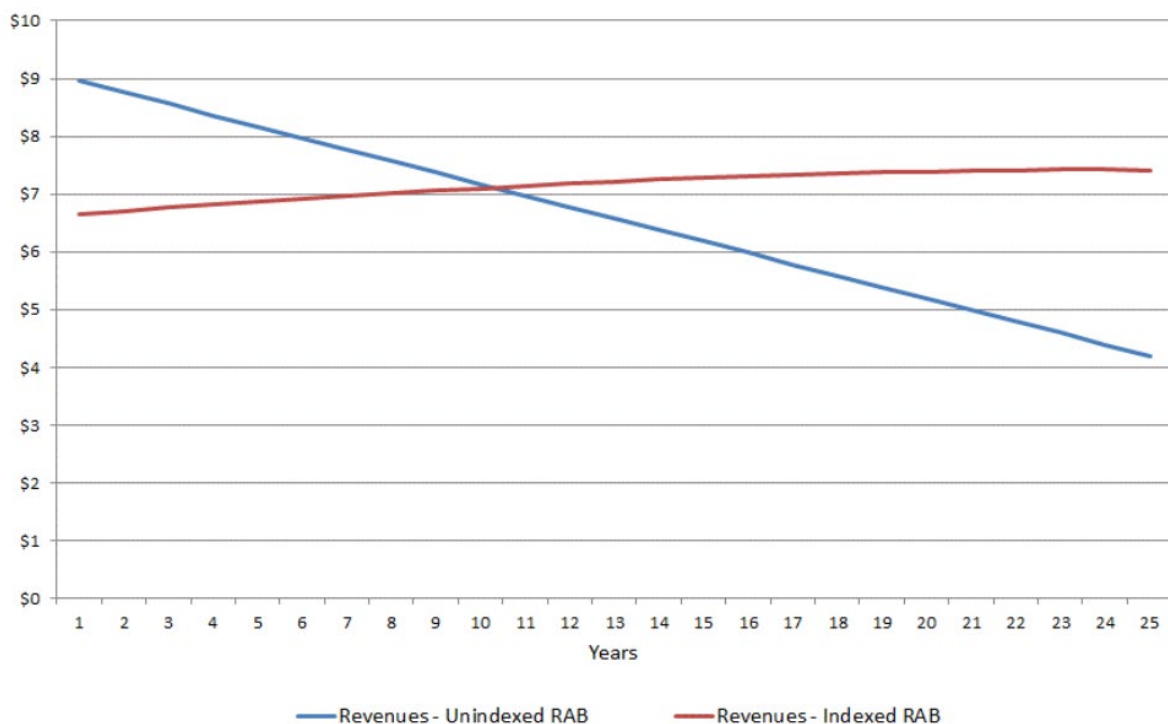
<sup>31</sup> NGR, r. 76.

<sup>32</sup> 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.

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.<sup>33</sup> Under both approaches, the total revenues being recovered are in NPV neutral terms.

Figure 4.2 shows the recovery of revenue under both approaches using a simplified example.<sup>34</sup> 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 indexation of the capital base also reduces price shocks when the asset is replaced at the end of its life.<sup>35</sup>

**Figure 4.2 Revenue path example – indexed vs un-indexed capital base (\$ nominal)**



Source: AER analysis.

Figure 2.1 in Attachment 2 shows the relative size of the inflation indexation and straight line depreciation, and their impact on the capital base using JGN’s proposal. A 10% increase in the straight-line depreciation causes revenues to increase by about 4.5%.

<sup>33</sup> 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.

<sup>34</sup> 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.

<sup>35</sup> 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.

## 4.4 Reasons for draft decision

In real terms, JGN's proposed regulatory depreciation is \$158.3 million (31.7%) higher than for the 2020–25 period. The higher regulatory depreciation is mainly driven by JGN's proposed \$300 million (\$2024–25) of accelerated depreciation relating to the uncertainty around the future usage of its gas network. This represents about 10.4% of its proposed total revenue.

In this draft decision, we have reduced JGN's proposed forecast regulatory depreciation by \$175.3 million (24.4%) to \$542.1 million (\$ nominal) for the 2025–30 period. This is mainly due to our draft decision on a lower accelerated depreciation amount.

We accept JGN's proposed straight-line depreciation method for calculating the regulatory depreciation amount as set out in the PTRM and the year-by-year tracking approach to implement this method, subject to updating some inputs in the depreciation module. We also accept JGN's proposed standard asset lives for its existing asset classes as they are consistent with those approved for the 2025–30 period.

Our assessment of JGN's accelerated depreciation, year-by-year tracking depreciation approach and standard asset lives are discussed in turn in the following subsections.

Our draft decision on a lower opening capital base as at 1 July 2025, a higher expected inflation rate and a lower forecast capex have also contributed to the reduction in the regulatory depreciation amount. These aspects of our draft decision are discussed in attachments 2, 3 and 5 respectively.

### 4.4.1 Accelerated depreciation due to stranded asset risk

For this draft decision, we accept JGN's proposal to apply accelerated depreciation to reduce stranded asset risk associated with long term demand uncertainty. However, we do not accept the \$300 million accelerated depreciation proposed by JGN in full and instead determine a reduced amount of \$156 million for the 2025–30 period. This reduced amount is calculated by limiting the 'base'<sup>36</sup> average annual real price increase over the 2025–30 period. For this draft decision, we have set this limit at 0%.

Based on the material before us, our draft decision has considered the balance between accepting some accelerated depreciation to reduce JGN's long term asset stranding risk against the short-term price impacts. Although the policy environment surrounding the future role of JGN's network in NSW is still developing, we have allowed some level of accelerated depreciation in recognition of early indications that JGN may potentially face some degree of stranded asset risk in NSW. However, we consider the level of risk is to a lesser extent than that faced by networks operating in Victoria and ACT at the present time. We consider the real price increase limit of 0% provides a level of accelerated depreciation that is reflective of the outlook and strength of policy signals surrounding the future role of JGN at the present time.

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<sup>36</sup> The 'base' real price path excludes the impact of incentive schemes. This is required to preserve the intended objectives of the CESS and ECM incentive schemes.

Our decision to allow accelerated depreciation is also consistent with our decision for a declining demand forecast for the 2025–30 period, albeit a more gradual decline in demand than JGN’s proposal, and lower alternative forecast capex which does not contain any significant growth capex. We consider that accelerated depreciation and minimising capex, together, are both necessary in order to respond to stranded asset risk.

We consider allowing a measured start to accelerated depreciation while maintaining price affordability for consumers to be prudent during a time of demand uncertainty. Whilst accelerated depreciation is only a temporary tool in managing stranded asset risk, it will help reduce stranding risk to some degree. This will provide incentives for JGN to continue making efficient investments to maintain safe and reliable services to an ageing network during the transition to net zero.

Our decision to allow accelerated depreciation is not intended to resolve the stranded asset risk issue, but rather to share some of the risk between JGN and a larger customer base while there is still an opportunity to do so. The opportunity to apply accelerated depreciation diminishes over time as demand declines and network prices continue to increase. As such, accelerated depreciation will not remove the need to resolve the broader policy question involving consumers, network businesses and governments on who should pay for the costs of stranding risk associated with past capital investments, or when, and how this will occur.

On balance, we consider a reduced accelerated depreciation amount for the 2025–30 period better reflects the level of stranded asset risk at this point in time and better shares some of the risk between JGN and a larger customer base.

Our reasons for our decision on accelerated depreciation are discussed below.

#### **4.4.1.1 Future gas demand uncertainty in NSW**

JGN’s proposed accelerated depreciation forms part of its strategic response to minimise its stranded asset risk in the face of future demand uncertainty.

We recognise that there is currently evidence indicating that demand for natural gas is likely to gradually decline in the long-term as NSW transitions to meet its net zero emissions goals. The impact of declining demand will lead to higher network costs per customer due to fewer customers to share the fixed costs, and therefore increasing stranded asset risk. The long term impact of declining demand on capital base recovery, network prices and customer bills are discussed further in section 4.4.1.2 below.

The pathway to transition to net zero and the role of JGN’s network during this transition is currently uncertain and will be impacted by various factors. This includes the NSW Government’s decarbonisation policies, technological developments in renewable energy and the cumulative decisions of customers to electrify as the economy transitions to net zero emissions.

In terms of current policy settings, the NSW Government has committed to net zero emissions by 2050 with more ambitious jurisdictional specific interim targets by 2035 compared to the targets set by the Commonwealth (Table 4.3). In comparison, the ACT and Victoria governments are targeting an earlier net zero target date of 2045 with stronger interim targets compared to NSW.



The NSW Government has also updated its Building Sustainability Index (BASIX) to support electrification of new developments to support its 2050 target.<sup>37</sup> Strong policy signals such as bans on new gas connections have been proposed or implemented by some local councils within JGN’s network area.<sup>38</sup> However, unlike Victoria<sup>39</sup> and the ACT<sup>40</sup>, there is currently no statewide ban on new gas connections in NSW.

**Table 4.3 Net zero carbon emissions targets by 2050**

Jurisdiction	2030 target	2035–2045 targets	2050 target
<b>Commonwealth</b>	43% below 2005 levels	–	Net zero
<b>NSW</b>	50% below 2005 levels	70% below 2005 levels by 2035	Net zero
<b>Vic</b>	45-50% below 2005 levels	75-80% below 2005 levels by 2035 Net zero by 2045	Net zero
<b>ACT</b>	65-75% below 1990 levels	90-95% below 1990 levels by 2040 Net zero by 2045	Net zero
<b>SA</b>	50% below 2005 levels	–	Net zero

Note: AEMC, *Emissions targets statement under the National Energy Laws*, February 2024, p. 1.

JGN’s future of gas modelling examined stranded asset risk under 4 long-term future scenarios with varying degrees of electrification and uptake of renewable gas.<sup>41</sup> Under all 4 scenarios, JGN forecasts its total gas demand throughput to decline in the medium to long term (Figure 4.3). This is largely consistent with AEMO’s 2024 Gas Statement of Opportunities (GSOO) which shows that demand for natural gas by residential and commercial customers in NSW is forecast to decline in the medium to long term as the economy transitions to meet net zero emissions by 2050.

<sup>37</sup> [BASIX](#) is part of NSW’s development application process. It mandates building standards to achieve reductions in water and energy consumption and greenhouse gas emissions. On 1 October 2023, the thermal and energy BASIX standards were increased which make it easier for electric homes to meet these higher standards.

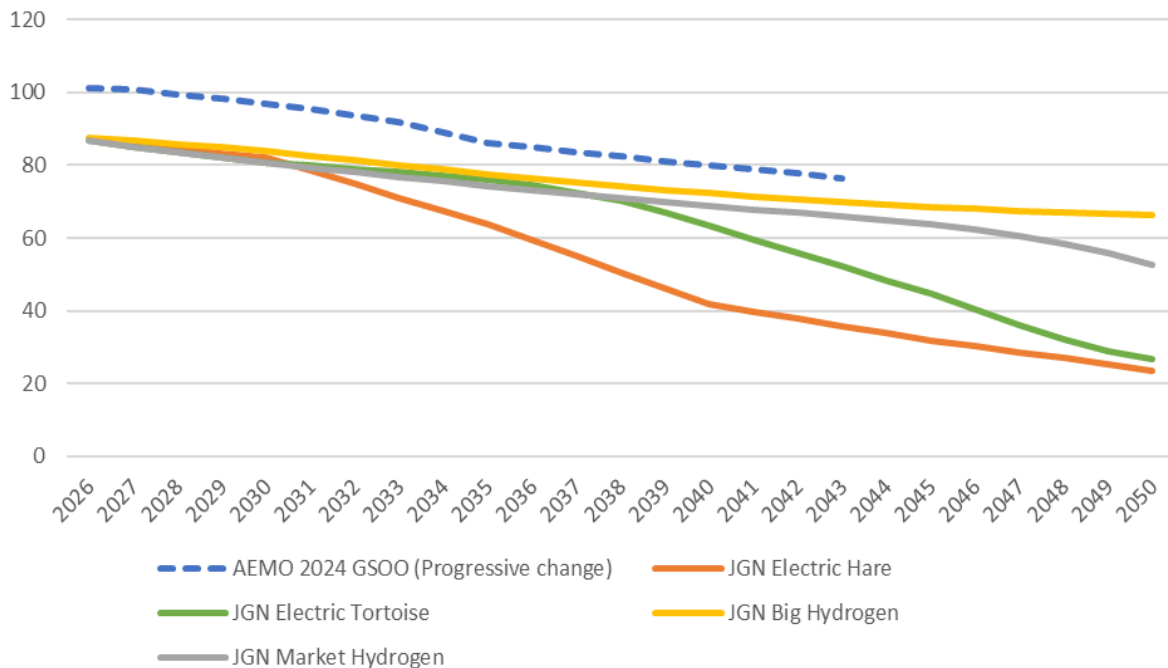
<sup>38</sup> Waverly Council, City of Sydney, Parramatta, Canterbury-Bankstown have all proposed or implemented bans on new gas connections. See JGN, *JGN 2025 Plan*, June 2024, p. 51.

<sup>39</sup> The Victorian government has banned natural gas connections in all new homes that require a planning permit in the state from 1 January 2024. This policy does not apply to existing homes or new homes that do not require a planning permit. Victorian Government: [Victoria’s gas substitution roadmap](#), September 2023.

<sup>40</sup> The ACT government has banned new gas network connections in certain circumstances since 8 December 2023; ACT Government: [Canberra’s Electrification pathway](#), accessed on 6 November 2024.

<sup>41</sup> JGN modelled 4 scenarios in its Future of gas model. Its classification of each scenario and associated probability JGN estimates each scenario to occur relative to each other in percentage terms for each scenario are: ‘Electric Hare’ (27%), ‘Big Hydrogen’ (10%), ‘Electric Tortoise’ (49%) and ‘Market Hydrogen’ (15%).



**Figure 4.3 Total gas throughput outlook for residential and industrial customers (PJ)**

Source: JGN, *Att 7.8M – Future of gas model*, June 2024; AEMO, *GSOO 2024: Gas forecasting data portal*, March 2024.

Note: AEMO 2024 GSOO only provides data for a 20-year outlook period for natural gas demand and is inclusive of gas throughput in the ACT.

Further, we note that there is stronger evidence for electrification and more limited evidence suggesting the long-term viability of hydrogen/renewable gases for residential use during the energy transition to net zero in many jurisdictions in Australia. Specifically, we note:

- The Australian Government released its Future Gas Strategy in May 2024 which acknowledges that gas will have a limited role in the future and identified that households and small businesses will have largely electrified by 2050 with low-emissions gas playing some role in the transition.
- AEMO's 2024 GSOO forecast declining demand for natural gas in NSW and does not provide a definitive long-term view on hydrogen/renewable gases.

#### 4.4.1.2 Accelerated depreciation as a regulatory tool

In our Information paper, *Regulating gas pipelines under uncertainty*, we identified accelerated depreciation to be currently the most accessible regulatory tool to reduce stranded asset risk arising from demand uncertainty in the gas sector. This is because adjusting depreciation offers the greatest flexibility in responding to new information in the future if the natural gas substitution pathways or actual demand turn out to be different than expected.<sup>42</sup> The NGL specifies that a regulated gas businesses should be provided with a '...reasonable opportunity to recover at least the efficient costs they incurred in providing

<sup>42</sup> AER, *Regulating gas pipelines under uncertainty – Information paper*, November 2021, p. 44.

services'.<sup>43</sup> The NGR provides flexibility for a depreciation schedule to change where necessary reflecting a change in expected economic life of an asset or a group of assets.<sup>44</sup>

JGN's proposal noted that fully depreciating its existing capital base by 2046 would require a sustained accelerated depreciation amount of around \$300 million per future access arrangement period.<sup>45</sup> As such, the proposed \$300 million accelerated depreciation for the 2025–30 period is equivalent to shortening the remaining life of its existing opening capital base as at 1 July 2025 such that it is fully recovered by 2046. Figure 4.4 shows that a sustained \$300 million accelerated depreciation (pink line) under the assumption of no capex from 2025 onwards results in JGN's opening capital base as at 1 July 2025 to be fully recovered by 2046.

JGN's opening capital base as at 1 July 2025 is about \$3.9 billion. We note that more than \$1.9 billion (or 50%) of its opening capital base as at 1 July 2025 have a remaining asset life between 30 to 55 years which is beyond the 2050 net zero target date. We acknowledge that the expected economic life of JGN's capital base may be affected to some extent due to the NSW Government's 2050 net zero target. However, at the present time, we do not consider there is sufficient evidence to suggest a full capital base recovery by 2046 is appropriate. We note that there is still uncertainty regarding the future role of JGN's gas network in the energy transition as it continues to operate in an evolving policy landscape in NSW. Therefore, it remains uncertain to what extent the economic life of JGN's network have been affected at the present time.

However, given the uncertainty around future demand, we consider it prudent to allow some level of accelerated depreciation for JGN in the 2025–30 period as a precautionary step. This is because delaying accelerated depreciation will lead to an even larger residual value of JGN's capital base potentially being stranded in the long term under a future scenario of declining demand and rising prices. This is evidenced by our long-term modelling of the impact of declining demand on JGN's capital base recovery, and on network prices and customer bills.

We have modelled the value of JGN's capital base over the period of 2025 to 2050 under different depreciation profiles.<sup>46</sup> Figure 4.4 below shows, in real terms, around 55% of JGN's opening capital base will be unrecovered by 2050 if no accelerated depreciation is provided (blue line). It also shows that if a one-off \$300 million accelerated depreciation is provided in the 2025–30 period (orange line) or a sustained \$300 million accelerated depreciation is provided for every 5-year period (grey line), the proportion of unrecovered capital base at 2050 will be reduced to around 52% and 21%. As such, accelerated depreciation will reduce

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<sup>43</sup> NGL, s. 24(2).

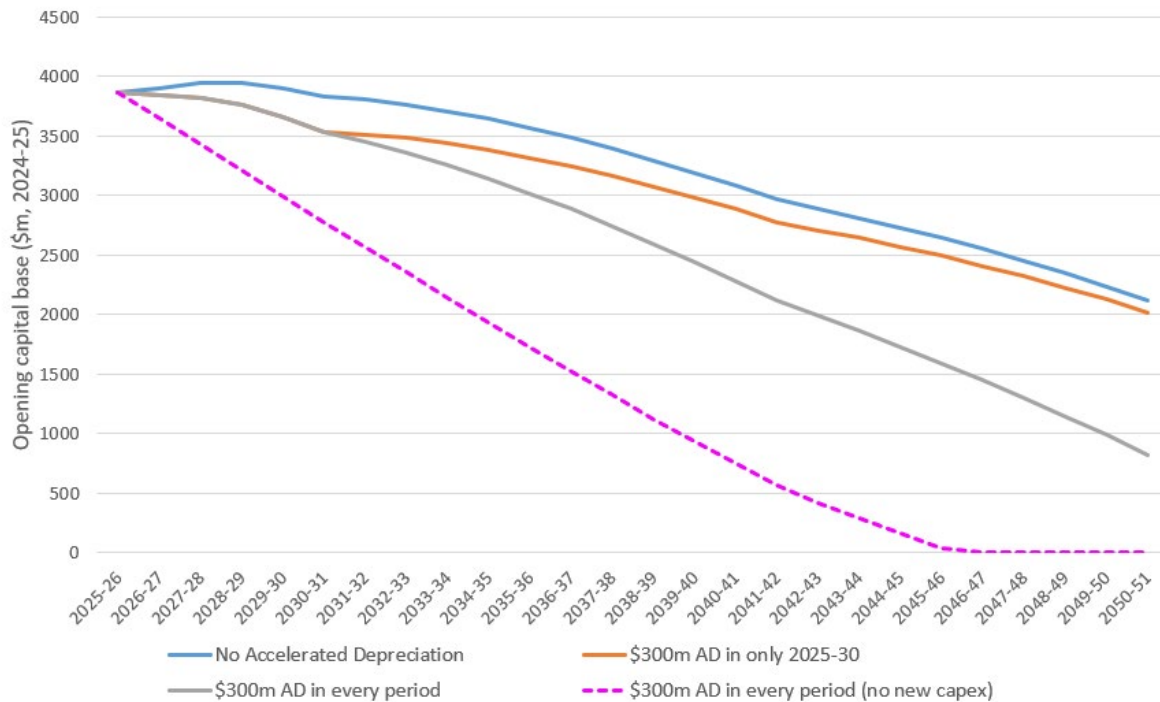
<sup>44</sup> NGR, r. 89(1)(b) and (c).

<sup>45</sup> JGN, *Att 7.3 – Depreciation approach*, June 2024, p. 39. Full recovery of the existing opening capital base as at 1 July 2025 by 2046 does not take into account of ongoing capex investments from 2025 onwards.

<sup>46</sup> For this analysis, we have assumed forecast capex is declining to zero by 2050. We have adopted 2050 as the end year for our long-term modelling purposes which aligns with the Government's net zero emission target date. However, this is only for modelling purposes and does not indicate that JGN's gas network would cease operation by 2050.

stranded asset risk to some extent by reducing the residual capital base to be recovered from a smaller customer base in the long term.

**Figure 4.4 Projected real opening capital base (\$ million, 2024–25)**



Source: AER Analysis.

Note: AD = Accelerated depreciation. Only the pink line assumes no capex from 2025 onwards, all other lines assume forecast capex from 2025 onwards declines to zero by 2050 from JGN’s proposed capex amounts.

We consider the benefit of accelerated depreciation in terms of reducing stranded asset risk is greatest while there is still a large customer base to share the cost recovery of the capital base. The larger the customer base the lower the price impact. Over time the opportunity to apply accelerated depreciation diminishes if prices continue to increase.

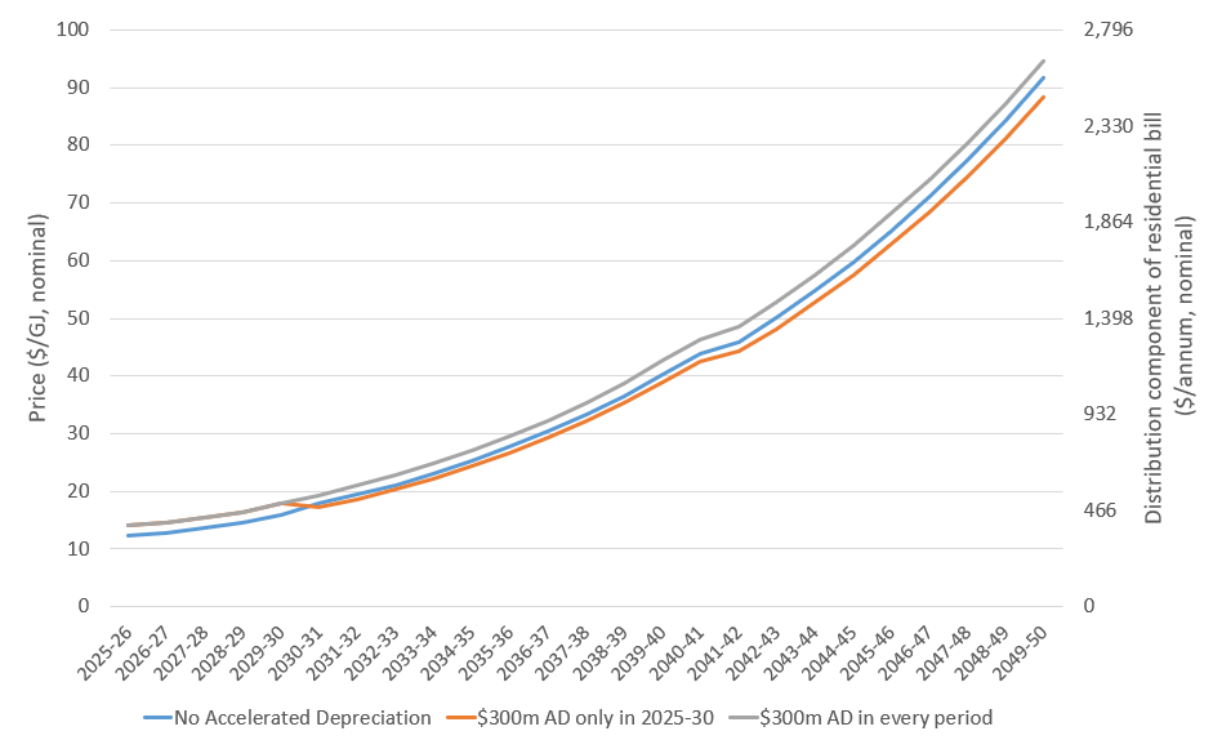
Under a future scenario of declining demand<sup>47</sup>, our long-term modelling shows that network prices and customer bills are expected to increase significantly in the medium to long term irrespective of the depreciation profiles we have modelled. Figure 4.5 below shows that based on the assumption of declining demand, network prices and customer bills are expected to almost double by 2035 and potentially increase by 500% to 600% by 2050 compared to current levels at 2025, in nominal terms. Allowing some accelerated depreciation now while gas prices are relatively low will therefore help reduce stranded asset risk by reducing the unrecovered capital base in the long term to some degree.

Overall, our long-term modelling demonstrates that declining demand will increase network prices and customer bills in the medium to long term. It also demonstrates the potential for accelerated depreciation to reduce the unrecovered residual capital base and therefore stranded asset risk. These observations are largely consistent with the long-term modelling outcomes presented by JGN in its proposal and in Energy Consumers Australia’s (ECA)

<sup>47</sup> For this analysis, we have assumed demand will decline to 21% of its current level by 2050.

submission.<sup>48</sup> It is also largely consistent with the long-term modelling findings submitted by the Victorian gas distributors during the 2023–28 access arrangement reviews under the context of declining demand.<sup>49</sup>

**Figure 4.5 JGN NSW distribution network prices and Residential customer bills (\$ nominal)**



Source: AER Analysis.

Note: AD = Accelerated depreciation; We have assumed forecast demand to decline to 21% of the current levels by 2050 reflecting the rate of decline in AEMO’s 2024 GSOO for NSW residential and commercial customers.

As discussed in our Issues paper published in August 2024, JGN’s proposal for accelerated depreciation has largely met the expectations set out in our Information paper, *Regulating gas pipelines under uncertainty*.<sup>50</sup> It is also supported by the reduced forecast connections/growth capex in its proposal reflecting the decline in demand for the 2025–30 period compared to the current 2020–25 period.

As the long-term trajectory for demand continues to decline, it becomes increasingly important to maintain price affordability for consumers by adjusting the amount of (or not allowing) accelerated depreciation to limit any further upward pressure on prices. There is a real risk as outlined in our Information paper that ‘...adopting a policy of accelerating

<sup>48</sup> ECA, *Submission on JGN 2025–30 Access Arrangement Proposal – Attachment Dynamic Analysis Report*, September 2024, p. 15.

<sup>49</sup> AGN, *AGN (Victoria & Albury) – Final Plan 2023–28*, July 2022, p. 62.

MGN, *Attachment 6.1 – Future of Gas – Our approach to accelerated depreciation*, July 2022, p. 42.

ASG, *ASG – Access Arrangement Information 2024–28*, July 2022, pp. 32–36.

<sup>50</sup> AER, *Issues paper on the early signals pathway expectations: JGN access arrangement 2025–30*, August 2024, p. 13; AER, *Regulating gas pipelines under uncertainty – Information paper*, November 2021, pp. 45–47 and 50.

depreciation in response to declining demand without some predefined limits could create an expectation of potentially large or repeated increases in future gas access prices in response to changes in expected demand'.<sup>51</sup> We therefore consider accelerated depreciation is only a temporary tool and not a permanent solution to reduce stranded asset risk. This view is also shared by stakeholders as discussed in section 4.4.1.4 below.

Accepting some accelerated depreciation is a measured and precautionary step while gas prices are relatively low and when there is an early indication of declining demand due to the energy transition to net zero. This is consistent with our Information paper on Regulating gas pipelines under uncertainty. We stated that '...the opportunity and flexibility for adjustment is greatest when we act as soon as we can to minimise the adverse impact of a decline in gas demand'.<sup>52</sup>

Allowing a measured start of accelerated depreciation will provide the right incentives for JGN to continue making efficient investments during the transition to net zero. This is because JGN's pipeline assets will remain in use and continue incurring ongoing maintenance and replacement costs which are necessary to maintain safe and reliable network services for the remaining customers on an ageing network. Taking no action to reduce asset stranding risk now may potentially deter these important investments which would not be in the long term interests of consumers.<sup>53</sup>

#### **4.4.1.3 The level of accelerated depreciation**

While accelerated depreciation can be used to reduce stranded asset risk, it must be carefully considered. The level of accelerated depreciation should reflect the specific circumstances of the regulated business, and more importantly, the scale of price adjustments should be reasonably made without creating price shocks.<sup>54</sup>

#### **Impact of accelerated depreciation on prices and bills**

We are mindful of the impact accelerated depreciation will have on network prices and customer bills. Although accelerated depreciation reduces stranded asset risk, it must be balanced against short-term price impacts and affordability. While section 24(2) of the NGL states networks be provided a '... reasonable opportunity to recover at least the efficient costs the service provider incurs...', it does not mean gas consumers must guarantee that the regulated businesses recover these costs without considering price affordability and stability. This is consistent with our Information paper, Regulating gas pipelines under uncertainty, where we stated that '...regulated depreciation or risk compensation cannot be adjusted without constraint to guarantee cost recovery for the regulated businesses'.<sup>55</sup>

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<sup>51</sup> AER, *Regulating gas pipelines under uncertainty – Information paper*, November 2021, p. 32.

<sup>52</sup> AER, *Regulating gas pipelines under uncertainty – Information paper*, November 2021, p. 44.

<sup>53</sup> NGL, s. 23.

<sup>54</sup> AER, *Regulating gas pipelines under uncertainty – Information paper*, November 2021, p. 29.

<sup>55</sup> AER, *Regulating gas pipelines under uncertainty – Information paper*, November 2021, p. 29.

In our 2023–28 final decisions for the Victorian gas distributors, we allowed an amount of accelerated depreciation reflecting a ‘base’ real price increase limit of 1.50% per annum.<sup>56</sup> Under this approach, the amount of accelerated depreciation is adjusted such that the average annual real price increase over the 2025–30 period does not exceed a defined limit. This approach accommodates for movements in other key components of the draft decision that impact revenue and prices, such as WACC, expected inflation, capex, opex and demand.

Conversely, JGN’s proposed \$300 million accelerated depreciation is a fixed amount of its total revenue requirement and is not based on achieving a particular price path outcome for the 2025–30 period.<sup>57</sup>

Throughout the access arrangement review process, a standard part of our process is to update the forecast revenue for movements in market variables such as expected inflation and the rate of return. Movements in these market variables can have a material impact on the final revenue and, therefore, consumer bills. As such, the price increase from JGN’s proposal for a fixed amount of accelerated depreciation may potentially be compounded by movements in market variables that place further upward pressure on prices for the 2025–30 period.

Table 4.4 demonstrates the price impact of accelerated depreciation in our draft decision. Had we accepted JGN’s proposed \$300 million of accelerated depreciation in our draft decision the real price increases would be materially higher at 2.3% per annum for the 2025–30 period. This translates to a higher average residential bill increase of \$18 per annum compared to \$11 in our draft decision for a reduced accelerated depreciation amount of \$156 million.

**Table 4.4 Price impact of accelerated depreciation for the 2025–30 period**

Scenario	AD amount (\$2024–25, million)	Real price increase including incentive schemes (%)	Nominal residential annual bill impact (%, year on year) <sup>b</sup>
AER draft decision with no price constraint	\$300 million	2.3%	\$18 (2.2%)
AER draft decision with 0% price constraint	\$156 million	0.5% <sup>a</sup>	\$11 (1.4%)

Source: AER analysis.

Note: AD = Accelerated depreciation.

- (a) Our draft decision applies a ‘base’ real price increase limit of 0% per annum before incentive schemes.
- (b) Based on typical gas consumption of 15 GJ for a residential customer. Bill impact is compared to a nominal annual residential gas bill of \$771 for 2024–25.

We therefore consider adjusting the amount of accelerated depreciation to target a ‘base’ real price increase limit to ensure stable price increases for the 2025–30 period to be the most appropriate approach until a more permanent solution is developed to reduce the uncertainty associated with stranded asset risk. This approach is supported by Consumer

<sup>56</sup> The ‘base’ real price path excludes the impact of incentive schemes. This is required to preserve the intended objectives of the Capital Expenditure Sharing Scheme (CESS) and Efficiency Carry-over Mechanism (ECM) incentive schemes.

<sup>57</sup> JGN, *Att 7.3 - Depreciation approach*, June 2024, p. 33.

Challenge Panel Sub-Panel (CCP31) and Alinta Energy should we consider there is a case for accelerated depreciation for JGN's 2025–30 period.<sup>58</sup>

### Impact of jurisdictional policies

As raised in our Issues Paper we consider that JGN's proposed accelerated depreciation proposal should be informed by NSW Government policies on the future role of gas. Government policies and roadmaps play a crucial role in establishing the pace and future role of gas networks during the energy transition to net zero by 2050. However, there are differing outlooks and strength of jurisdictional policy signals driven by climate change-related commitments across Australian states and territories.

In our recent decisions for the gas distributors in Victoria and the ACT, we have allowed some level of accelerated depreciation for networks operating in these jurisdictions.<sup>59</sup> In these decisions, the case for accelerated depreciation was supported by jurisdictional policies or legislation to transition away from the use of natural gas by the Victorian and ACT governments. This included strong policy signals such as jurisdictional wide bans on new gas connections which we acknowledged would likely mean a limited role for gas networks in Victoria and ACT beyond 2050. Conversely, the NSW Government has not made similar policies to date which means JGN is obliged to continue investing and connecting new customers to its network.

Based on the material before us, our draft decision has considered the balance between accepting some accelerated depreciation to reduce JGN's long term asset stranding risk against the short-term price impacts in the context of the NSW government policies regarding the future role of gas. Although the policy environment surrounding the future role of JGN's network in NSW is still developing, we have allowed some level of accelerated depreciation in recognition of early indications that JGN may potentially face some degree of stranded asset risk in NSW, but to a lesser extent than that faced by networks operating in Victoria and ACT.

### Targeting a 'base' real price increase limit of 0%

For the draft decision, we determine a 'base' real price increase limit of 0% per annum (before incentive mechanisms are factored in) for the 2025–30 period.<sup>60</sup> Based on this price

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<sup>58</sup> CCP, *Advice to the Australian Energy Regulator: Issues Paper: JGN Gas Networks NSW Access Arrangement Proposal, (Early Signal Pathway)*, August 2024, p. 29; Alinta Energy, *Submission on JGN 2025–30 access arrangement proposal*, September 2024, p. 6.

<sup>59</sup> AER, *Final Decision – Evoenergy Access Arrangement 2021 to 2026*, Attachment 4 Regulatory Depreciation, April 2021, p. 6.

AER, *Final Decision – AusNet Gas Services Gas Distribution Access Arrangement 1 July 2023 to 30 June 2028*, Attachment 4 Regulatory Depreciation, June 2023, p. 7.

AER, *Final Decision – Australian Gas Networks (Victoria & Albury) Gas Distribution Access Arrangement 1 July 2023 to 30 June 2028*, Attachment 4 Regulatory Depreciation, June 2023, p. 7.

AER, *Final Decision – Multinet Gas Services Gas Distribution Access Arrangement 1 July 2023 to 30 June 2028*, Attachment 4 Regulatory Depreciation, June 2023, p. 7.

<sup>60</sup> The 'base' real price path excludes the impact of incentive schemes. This is required to preserve the intended objectives of the Capital Expenditure Sharing Scheme (CESS) and Efficiency Carry-over Mechanism (ECM) incentive schemes.



increase limit, we have calculated a reduced accelerated depreciation amount of \$156 million (\$2024–25) for the 2025–30 period.

We consider a lower ‘base’ real price increase limit compared to Victoria is appropriate as JGN is still required to connect new customers as there is currently no legislation to ban new gas connections in NSW. This is in contrast with Victoria or the ACT which have already implemented statewide bans on new gas connections and a roadmap to phase out gas.

This reduced accelerated depreciation amount of \$156 million results in a proportion of the opening capital base of 4.0% for JGN compared to the aggregate 6.4% determined for the 2023–28 Victorian gas distribution decisions (Table 4.5). This also better reflects the level of uncertainty in NSW compared to Victoria and the ACT.

On balance, we consider the reduced accelerated depreciation amount of \$156 million based on a real price path constraint of 0% to be more reflective of the outlook and strength of policy signals surrounding the future role of JGN in NSW at the present time. This is also supported by our draft decision for a higher demand forecast for the 2025–30 period compared with JGN’s proposal. Our decision recognises that the 2025–30 period will see a fall in forecast demand, but we do not consider it will occur at the rate forecast by JGN. We have determined a lower rate of disconnections and abolishments for residential customers, as well as a slower decline in usage per customer for the 2025–30 period. Our assessment on demand is discussed in Attachment 12.

**Table 4.5 Accelerated depreciation as a proportion of opening capital base**

Network	Access arrangement period	Real dollar terms	Opening capital base (\$ million)	‘Base’ real annual price increase	AD amount (\$ million)	AD as a proportion of opening capital base
JGN draft decision (NSW)	2025–30	\$2024–25	\$3,863m	0.0%	\$156m	4.0%
<b>Victoria gas networks (Aggregate)</b>	2023–28	\$2022–23	\$5,238m	1.5%	\$333m	6.4%
AusNet (Vic)			\$1,868m		\$105m	5.6%
AGN (Vic)			\$1,953m		\$175m	9.0%
Multinet (Vic)			\$1,416m		\$53m	3.7%

Source: AER analysis.

Note: AD = Accelerated depreciation.

While we have targeted a 0% per annum ‘base’ real price increase limit for this draft decision, we note there may be scope to choose a different target ‘base’ real price path for consideration in the final decision. However, sufficient supporting evidence and adequate further customer consultation on the short-term price impacts of accelerated depreciation addressing affordability concerns will be needed to justify a higher ‘base’ real price increase limit. We acknowledge that economic conditions will evolve further before the final decision, and this will impact the values of the WACC and expected inflation.

JGN’s proposed accelerated depreciation approach is to reallocate a fixed portion of its existing ‘MP Services’ asset class into a dedicated 5-year ‘Future of gas MP Services’ asset



class instead of reducing its remaining and standard asset lives. This approach is consistent with the approach we adopted for the 2023–28 Victorian gas distribution decisions. We accept this approach as it isolates the revenue and price impact of accelerated depreciation to only the 2025–30 period. This will leave open the option to review and readjust the depreciation schedule in future periods under rule 89 of the NGR in response to new information if the natural gas substitution pathways or actual demand turn out to be different than expected.

#### 4.4.1.4 Customers’ views and stakeholder submissions on accelerated depreciation

JGN undertook a broad range of consumer engagement with various consumer groups on the topic of accelerated depreciation at its Customer Forum, Small Business Focus Group and Large Customer Forum. The outcomes of these engagements were general acceptance of JGN’s proposal for accelerated depreciation.<sup>61</sup>

On the issue of accelerated depreciation, we received 7 submissions from the Consumer Challenge Panel Sub-Panel (CCP31), Energy Consumers Australia (ECA), Institute for Energy Economics and Financial Analysis (IEEFA), Justice and Equity Centre (JEC), Rewiring Australia, Better Renting, and Alinta Energy. All 7 stakeholders do not support JGN’s proposal for \$300 million accelerated depreciation and consider it unfairly transfers stranded asset risk to consumers. However, if we consider there is a case for accelerated depreciation for JGN’s 2025–30 period, CCP31 and Alinta Energy support our approach to target a set price path outcome to determine the appropriate amount of accelerated depreciation (as discussed in section 4.4.1.3).

##### Minimising capex as a tool in reducing stranded asset risk

ECA considers accelerated depreciation should not be allowed and instead the AER should focus on minimising capex investments to reduce stranded asset risk. This includes rejecting JGN’s proposed renewable connections capex (as ECA considers consumers should not pay for two distinct future of gas scenarios), minimising metering replacement and eliminating new connections. ECA’s long term modelling concludes that minimising new capex results in a lower residual capital base by 2055 and is therefore more effective than accelerated depreciation. Other stakeholders (CCP31, IEEFA and JEC) also do not support JGN’s investment in renewable connections capex and consider it to be inconsistent with JGN’s proposal for accelerated depreciation.

The capital base is an accumulation of the value of investments that a service provider has made in its network. This value is the amount customers ‘owe’ to the investors which is paid back over time through depreciation. Therefore, costs associated with network stranding affects both consumers and networks. The equation below shows how the capital base is calculated at a particular point in time:

$$\begin{aligned} \text{Capital base}_t &= \text{Capital base}_{t-1} + \text{Actual inflation} + \text{Actual Capex} \\ &\quad - \text{Straight line depreciation} \end{aligned}$$

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<sup>61</sup> JGN, *JGN 2025 Plan, June 2024*, pp. 44–45 and 109. The large customer forum were silent in terms of their preferences for accelerated depreciation.

We agree with stakeholders' submissions that minimising new capex is also an important tool for reducing stranded asset risk. Together, accelerated depreciation and minimising capex will reduce the capital base overtime. We consider that accelerated depreciation and minimising new capex, together, are both necessary in order to respond to stranded asset risk.

We note that our draft decision allowed for a lower forecast capex for the 2025–30 period. The forecast capex allowed is necessary for JGN to maintain the safety and reliability of an ageing network, rather than to grow it during a time of uncertainty. As such, our draft decision on a lower forecast capex is consistent with our decision to allow some amount of accelerated depreciation for the 2025–30 period. Our assessment on forecast capex is discussed in Attachment 5 to this draft decision.

#### **Accelerated depreciation is not a permanent solution**

ECA, Atlinta Energy, Rewiring Australia and IEEFA considered that accelerated depreciation is an incomplete policy response and not a permanent solution for a much larger issue affecting the gas sector.

We agree with stakeholders that accelerated depreciation by itself is not the long-term solution. While we consider that accelerated depreciation is currently the most accessible regulatory tool to help reduce stranded asset risk, it has limitations. As such, allowing some accelerated depreciation now while gas prices are still relatively low will help reduce stranded asset risk, but by itself cannot be relied on as a long-term tool.

As stated in our Information paper, we consider that approving any form of accelerated depreciation is a balancing act between preserving the right incentives for network investments and maintaining price affordability of gas network services, avoiding price shocks where possible.<sup>62</sup>

While we note stranded asset risk is a long-term issue and cannot be resolved within a single access arrangement period, our draft decision on JGN's accelerated depreciation is limited to the 2025–30 period only and does not extend any accelerated depreciation into subsequent periods. We consider allowing a measured start to accelerated depreciation while maintaining price affordability for consumers to be prudent during a time of demand uncertainty whilst the NSW government policy landscape is still developing. This will help reduce stranding risk to some degree and provide incentives for JGN to maintain safe and reliable services to an ageing network during the transition to net zero in the long term interest of consumers.

On balance, we consider the reduced accelerated depreciation amount of \$156 million reflects the outlook and strength of policy signals surrounding the future role of JGN at the present time. As the NSW Government's policy develops over time, we will have a clearer view on the level of future costs and the period over which these costs can be recovered.

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<sup>62</sup> AER, *Regulating gas pipelines under uncertainty – Information paper*, November 2021, p. 28.

#### 4.4.2 Year-by-year tracking approach

JGN proposed to continue with the year-by-year tracking approach for calculating the depreciation schedule for its existing assets consistent with that approved for the 2020–25 access arrangement. It has used our depreciation tracking module to implement year-by-year tracking.

We accept JGN's proposed year-by-year tracking approach meets the requirements of rule 89 of the NGR in that it will result in depreciation schedules that allow:

- the reference tariffs to vary over time in a manner that would promote efficient growth in the market for reference services<sup>63</sup>
- an asset to be depreciated only once<sup>64</sup> and over its economic life<sup>65</sup>
- for a service provider's reasonable needs for cash flow.<sup>66</sup>

JGN used our depreciation module in the RFM to implement year-by-year tracking. We have updated the following inputs to be consistent with the RFM:

- We updated the estimated CPI for 2024–25 based on the latest forecast inflation published in the Reserve Bank of Australia's August 2024 Statement on Monetary Policy,<sup>67</sup> which became available after JGN submitted its proposal.
- We updated the inputs in the 'MP Services' and 'Future of gas MP Services' asset classes in the final year asset adjustments section of the depreciation tracking module to reflect our draft decision on accelerated depreciation as discussed in section 4.4.1.<sup>68</sup>

#### 4.4.3 Standard asset lives

We accept JGN's proposed standard asset lives for its existing asset classes as they are consistent with those approved for the 2025–30 period.

For our draft decision we do not assign a standard asset life for JGN's proposed new 'Future of gas MP Services' asset class as it is not used for allocating capex (i.e. has zero forecast capex for the 2025–30 period).

The standard asset life for the 'Equity raising costs' asset class needs to be reviewed each access arrangement 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.<sup>69</sup> JGN's proposed PTRM used our standard approach to calculate the weighted average of the standard asset lives of all

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<sup>63</sup> NGR, r. 89(1)(a).

<sup>64</sup> NGR, r. 89(1)(d).

<sup>65</sup> NGR, r. 89(1)(b).

<sup>66</sup> NGR, r. 89(1)(e).

<sup>67</sup> RBA, *Statement on Monetary Policy, Table 3.1: Detailed Forecast Table*, August 2024, p. 57.

<sup>68</sup> This included amending the remaining asset life of the negative final year adjustments to the 'MP Services' asset class in the RFM. JGN proposed a remaining asset life of 35.0 years, whereas our draft decision uses a remaining asset life of 35.3 years. This is discussed in Attachment 2.

<sup>69</sup> For this reason, our standard approach is to use forecast net capex as the weights to establish the weighted average standard asset life for amortising equity raising costs.

depreciable asset classes over the 2025–30 period, resulting in a proposed standard life of 43.1 years. However, JGN does not meet the requirements to incur benchmark equity raising costs associated with the approved forecast capex. Consistent with JGN’s proposal, no equity raising costs have been determined in our draft decision modelling. Accordingly, we record the standard asset life as ‘not applicable’ in the PTRM for this draft decision.

Table 4.6 sets out our draft decision on JGN’s standard asset lives for the 2025–30 period. We are satisfied the asset lives approved in this draft decision will result in a depreciation schedule that reflects the depreciation criteria in the NGR.<sup>70</sup>

**Table 4.6 AER’s draft decision on JGN’s standard asset lives for the 2025–30 period (years)**

Asset class	Standard asset life (years)
Trunk Wilton-Sydney	80.0
Trunk Sydney-Newcastle	80.0
Trunk Wilton-Wollongong	80.0
Contract Meters	15.0
Fixed Plant - Distribution	50.0
HP Mains	80.0
HP Services	50.0
MP Mains	50.0
MP Services	50.0
Meter Reading Devices	15.0
Country POTS	50.0
Tariff Meters	15.0
Computers - IT Infrastructure	5.0
Fixed Plant	10.0
Furniture	10.0
Land	n/a
Low value assets	10.0
Mobile Plant	10.0
Vehicles	6.0
Future of Gas MP Services	n/a

<sup>70</sup> NGR, r. 89.

Asset class	Standard asset life (years)
Leasehold Improvements (SL)	10.0
Buildings (SL)	48.0
Software – Inhouse (SL)	5.0
Equity raising costs <sup>a</sup>	n/a

Source: AER analysis.

n/a not applicable. We have not assigned a standard asset life to some asset classes because the assets allocated to them are not subject to depreciation or they have no forecast capex.

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

## 4.5 Revisions

We require the following revisions to make the access arrangement proposal acceptable as set out in Table 4.7.

**Table 4.7 JGN's regulatory depreciation revisions**

Revision	Amendment
Revision 4.1	Make all necessary amendments to reflect this draft decision on the regulatory depreciation amounts for the 2025–30 access arrangement period.

# Glossary

Term	Definition
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
capex	capital expenditure
CESS	Capital expenditure incentive scheme
ECM	efficiency carryover mechanism
GSOO	Gas Statement of Opportunities
JGN	Jemena Gas Networks
NGL	National Gas Laws
NSW	New South Wales
NGO	National Gas Objectives
NGR	National Gas Rules
opex	operating expenditure
PTRM	Post-tax revenue model
RFM	Roll forward model
WACC	weighted average cost of capital