Draft Decision

APA Victorian Transmission System (VTS)

Access Arrangement 2023 to 2027

(1 January 2023 to 31 December 2027)

Attachment 4
Regulatory depreciation

June 2022

AUSTRALIAN ENERGY REGULATOR

Inquiries about this publication should be addressed to:

Australian Energy Regulator
GPO Box 520
Melbourne VIC 3001

Tel: 1300 585 165

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Note

This attachment forms part of the AER's draft decision on the access arrangement that will apply to APA's Victorian Transmission System (VTS) for the 2023–27 access arrangement period. It should be read with all other parts of the draft decision.

The draft decision includes the following documents:

Overview

Attachment 1 – Services covered by the access arrangement

Attachment 2 – Capital base

Attachment 3 – Rate of return

Attachment 4 – Regulatory depreciation

Attachment 5 – Capital expenditure

Attachment 6 – Operating expenditure

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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 the Victorian Transmission System (VTS), we include an amount for the depreciation of the projected capital base.[1] 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 APA's annual regulatory depreciation amount for the VTS for the 2023–27 access arrangement period (2023–27 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), including the proposed shortening of standard asset lives for those asset classes with standard asset lives of greater than 30 years
- the remaining asset lives for depreciating existing assets in the opening capital base, including the proposed shortening of the remaining asset lives for those asset classes with remaining asset lives of greater than 30 years.[2]

4.1 Draft decision

We determine a regulatory depreciation amount of $81.6 million ($ nominal) for APA for the 2023–27 period. This represents a reduction of $123.7 million (60.2%) from APA's proposed regulatory depreciation amount of $205.3 million ($ nominal). One of the key reasons for the decrease compared to APA's proposal is our higher expected inflation rate for the 2023–27 period, which increases the adjustment for indexation of the capital base that is offset against straight-line depreciation in determining regulatory depreciation. Other factors leading to lower depreciation are that we are not accepting APA's forecast capex and instead approving a lower amount and we are not accepting APA's proposal to accelerate depreciation by applying a 30 year cap on asset lives.

Table 4.1 sets out our draft decision on APA's regulatory depreciation amount for the VTS over the 2023–27 period.

1 NGR, r. 76(b).

2 The term 'remaining asset life' may also be referred to as 'remaining economic life' or 'remaining life'.

Table 4.1 AER's draft decision on APA's VTS forecast depreciation for the 2023–27 period ($ million, nominal)

	2023	2024	2025	2026	2027	Total
Straight-line depreciation	47.2	55.3	59.1	56.8	51.8	270.1
Less: Indexation on opening capital base	35.2	37.9	38.5	38.5	38.4	188.5
Regulatory depreciation	**11.9**	**17.4**	**20.7**	**18.3**	**13.3**	**81.6**

Source: AER analysis.

The forecast regulatory depreciation amount in APA VTS's proposal is a 125% increase from the current period ($2022). There are a number of drivers of this outcome. They include a higher opening capital base than 5 years ago (due largely to capex on the Western Outer Ring Main (WORM) project, higher forecast capex than the last review (including a significant proportion in the short lived 'Other' asset class), and a proposed 30 year cap on both remaining and standard asset lives.

The regulatory depreciation amount is the net total of the straight-line depreciation less the inflation indexation of the capital base. The straight-line depreciation is impacted by our decision on APA's VTS opening capital base as at 1 January 2023 (Attachment 2), forecast capex (Attachment 5) and asset lives (section 4.4). Our draft decision straight-line depreciation for APA is $62.0 million ($ nominal) lower than that proposed by APA.

The indexation on the capital base is impacted by our decision on APA's VTS opening capital base (Attachment 2), forecast capex (Attachment 5) and the expected inflation rate (Attachment 3).[3] Our draft decision indexation on APA's projected VTS capital base is $61.7 million higher than proposed by APA. This is largely because of our higher expected inflation rate of 2.87% per annum for the 2023–27 period compared to 2.00% per annum as proposed by APA.[4] The increase in indexation has more than offset the increase in straight-line depreciation (since indexation is deducted from the straight-line depreciation).

In coming to this decision on APA's straight-line depreciation:

- We accept APA's proposed straight-line depreciation method used to calculate the regulatory depreciation amount.
- We do not accept APA's proposed 30 year cap on certain remaining and standard asset lives for accelerated depreciation purposes. This is discussed in section 4.4.1.1.
- For those asset classes not subject to the proposed cap, we accept APA's proposed weighted average method to calculate the remaining asset lives as at 1 January 2023 for depreciating those existing assets. This method is a continuation of the approved approach used in the 2018–22 access arrangement and applies the approach as set out in our roll forward model (RFM). In accepting the weighted average method, we have updated the proposed remaining asset lives as at 1 January 2023 due to the input changes we made to APA's proposed RFM. This is discussed in section 4.4.1.

[3] 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 2023–27 period.

[4] Our estimate of inflation will be updated for our final decision.

- We accept the creation of a new asset class for 'Integrity inspections' and its proposed standard asset life of 10 years. However, we do not accept the creation of new asset classes for 'Hydrogen safety', 'WORM' and 'SWP_570'. The reasons for these decisions are discussed in section 4.4.2.
- We consider that the existing 'Other' asset class with a standard asset life of 5 years should be split into 'Other – short life' and 'Other – long life' asset classes with standard asset lives of 5 years and 15 years respectively. The reasons for this is discussed in section 4.4.2.

4.2 APA's proposal

APA proposed a total forecast regulatory depreciation amount of $205.3 million ($ nominal) for the VTS for the 2023–27 period, as set out in Table 4.2.

Table 4.2 APA's proposed forecast depreciation amount for the VTS for the 2023–27 period ($ million, nominal)

	2023	2024	2025	2026	2027	Total
Straight-line depreciation	47.6	61.0	71.3	77.3	74.9	332.1
Less: Indexation on opening capital base	22.6	24.8	26.4	26.6	26.3	126.8
Regulatory depreciation	**24.9**	**36.2**	**44.9**	**50.7**	**48.6**	**205.3**

Source: APA, *VTS 2023–27 Access Arrangement – Post-tax revenue model*, December 2021.

To calculate the depreciation amount, APA 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 31 December 2022 derived from the AER's RFM
- its forecast capex for the 2023–27 period
- an expected inflation rate of 2.00% per annum for the 2023–27 period
- a cap of 30 years on certain remaining and standard asset lives for accelerated depreciation purposes. This cap predominantly impacts the 'Pipelines' and 'General buildings' asset classes. Otherwise, the standard asset lives for depreciating new assets associated with forecast capex for the 2023–27 period were mostly consistent with those approved in the 2018–22 access arrangement.
- the weighted average approach to determine remaining asset lives at 1 January 2023 derived from the RFM to calculate the forecast depreciation of existing assets (for those asset classes unimpacted by the 30 year cap).

In addition, APA proposed new asset classes for 'Integrity inspections', 'Hydrogen safety', 'WORM' and 'SWP_570'. The 'Integrity inspection' asset class was proposed for capex associated with inline inspection works. The 'Hydrogen safety' asset class was proposed for a program of works to assess the VTS network's ability to handle hydrogen blended gas. The 'WORM' asset class was proposed to group all assets associated to the WORM project, while the 'SWP_570' asset class was proposed to group assets relating to the proposed

expansion works on the South West Pipeline. See attachment 5 for a discussion on the capex proposed in these areas.

4.3 Assessment approach

In the VTS 2023–27 access arrangement proposal, APA must provide a forecast depreciation schedule for the 2023–27 period. The depreciation schedule sets out the basis on which the pipeline assets constituting the capital base are to be depreciated for the purpose of determining a reference tariff.[5] It may consist of a number of separate schedules, each relating to a particular asset or class of asset.[6]

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 Rules (NGR). The depreciation criteria[7] 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[8]
- so that each asset or group of assets is depreciated over the economic life of that asset or group of assets[9]
- 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[10]
- so that (subject to the rules about capital redundancy), an asset is depreciated only once,[11] and
- so as to allow for the service provider's reasonable needs for cash flow to meet financing, non-capital and other costs.[12]

The depreciation criteria also provides that a substantial amount of depreciation may be deferred in circumstances where investment is made on the expectation of future demand growth.[13]

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.[14]

Our assessment takes into account revenue and pricing principles (RPP) and seeks to promote the National Gas Objective (NGO).[15] The NGO is to promote efficient investment in,

5 NGR, r. 88(1).
6 NGR, r. 88(2).
7 NGR, r. 89.
8 NGR, r. 89(1)(a).
9 NGR, r. 89(1)(b).
10 NGR, r. 89(1)(c).
11 NGR, r. 89(1)(d).
12 NGR, r. 89(1)(e).
13 NGR, r. 89(2).
14 NGR, r. 74(2).
15 NGL, s. 28; NGR r. 100(1).

and efficient operation and use of, natural gas services for the long term interests of consumers of natural gas with respect to price, quality, safety, reliability and security of supply of natural gas.[16] We are required, when carrying out our functions, to make a decision that will contribute, or will be likely to contribute, to the achievement of the NGO.[17] In addition, when exercising our decision-making powers, we are required to take into account the RPP.[18] 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 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 our decisions.[19]

In April 2020, we published our first version of the RFM and PTRM for gas pipeline service providers under new provisions in the NGR.[20] Gas transmission 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.[21] 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 APA'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 January 2023

16 NGL, s. 23.
17 NGL, s. 28(1)(a).
18 NGL, s. 28(2).
19 NGL, s. 24.
20 NGR, rr. 75A–75B.
21 NGR, r. 89.

- forecast net capex in the 2023–27 period[22]
- indexation adjustment—based on the forecast capital base and expected inflation rate for the 2023–27 period
- standard asset life for each asset class—used for calculating the depreciation of new assets associated with forecast net capex in the 2023–27 period
- remaining asset life for each asset class—used for calculating the depreciation of existing assets as at 1 January 2023 under the weighted average approach.

Our draft decision on APA's regulatory depreciation amount reflects our determinations on the VTS opening capital base, expected inflation and forecast net capex (the first three inputs in the above list).[23] Our determinations on these components of APA's proposal are discussed in Attachments 2, 3 and 5, respectively. In this Attachment 4, we discuss our assessment on the proposed standard and remaining asset life for each asset class (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 APA'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. In general, 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.

[22] Capex enters the capital base, net of forecast disposals and capital contributions. It includes equity raising costs (where relevant) and the half-year WACC to account for the timing assumptions in the PTRM. Our draft decision on the capital base (Attachment 2) also reflects our updates to the WACC for the 2023–27 period.

[23] Our final decision will update the opening capital base as at 1 January 2023 for revised estimates of actual capex and inflation.

APA has proposed to apply a 30 year cap to the remaining (and standard) assets lives for 'Pipelines', 'General buildings', and General land' as at 1 January 2023. For the other asset classes it proposed to continue applying the WARL approach to calculate their remaining asset lives at 1 January 2023. Our assessment on APA's proposed remaining asset lives is discussed in section 4.4.1.

4.3.1 Interrelationships

The regulatory depreciation amount is a building block component of the total revenue requirement.[24] 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.[25] 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.[26] 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 using a nominal rate of return or weighted average cost of capital (WACC) applied to the opening capital base.[27] The total revenue requirement is calculated by adding the return on capital, depreciation, operating expenditure (opex), tax and revenue adjustments building blocks.[28] 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).[29] Regulatory depreciation is the amount used in the building block calculation of total revenue

[24] 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.

[25] 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.

[26] NGR, r. 89(1)(d).

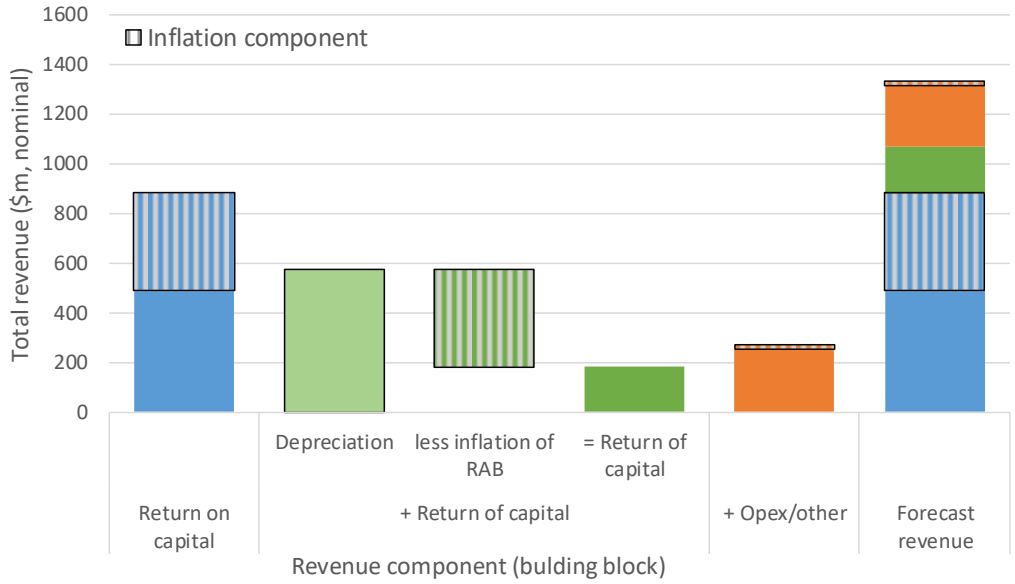
[27] NGR, r. 87.

[28] NGR, r. 76.

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

to ensure that the revenue equation is consistent with the use of a capital base, which is indexed for inflation annually. Figure 4.1 shows where the inflation components are included in the building block costs.

Figure 4.1 Inflation components in revenue building blocks – 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 un-indexed (historical cost) capital base, no adjustment to the depreciation calculation of total revenue would be required. This alternative approach produces a different time path of total revenue compared to our standard approach. In particular, overall revenues (and therefore prices) would be higher early in the asset's life (as a result of more depreciation being returned to the service provider) and lower in the future—producing a steeper downward sloping profile of total revenue.[30] Under both approaches, the total revenues being recovered are in NPV neutral terms.

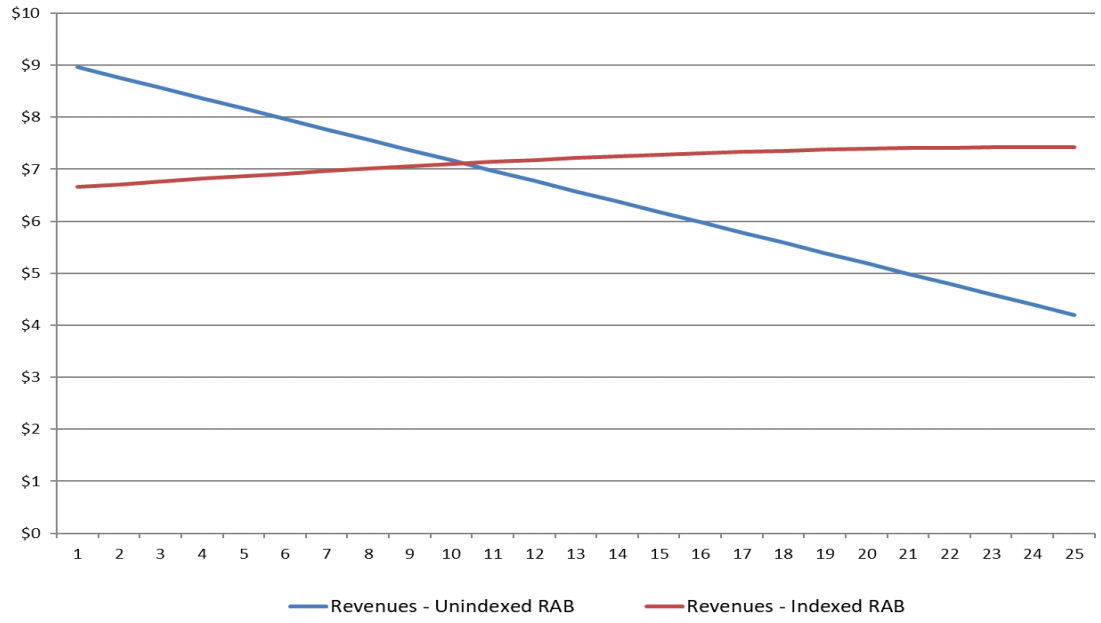
Figure 4.2 shows the recovery of revenue under both approaches using a simplified example.[31] Indexation of the capital base and the offsetting adjustment made to depreciation results in a smoother revenue recovery profile over the life of an asset than if the capital base was un-indexed. The indexation of the capital base also reduces price shocks when the asset is replaced at the end of its life.[32]

30 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.

31 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.

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

Figure 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 APA's proposal. A 10% increase in the straight-line depreciation causes revenues to increase by about 5.0%.

4.4 Reasons for the draft decision

We accept APA's proposed straight-line depreciation method for calculating the regulatory depreciation amount as set out in the PTRM. However, we have reduced APA's proposed forecast regulatory depreciation for the VTS by $123.7 million (60.2 %) to $81.6 million ($nominal) for the 2023–27 period. This reduction is mainly due to reductions in forecast capex, rejection of the proposed 30 year cap on asset lives, and the higher expected inflation rate we applied in this draft decision compared to APA's proposal (Attachment 3).

We accept APA's proposal to apply the weighted average method to calculate the remaining asset lives as at 1 January 2023. However, we have updated the remaining asset lives to reflect amendments we made in the RFM.

We do not accept APA's proposed cap of 30 years on its remaining and standard asset lives. We instead consider the remaining asset lives as calculated under the weighted average approach and the current standard asset lives that reflect the technical lives of the asset classes should continue to apply for the 2023–27 period.

We accept APA's proposed new asset class for 'Integrity inspections' and standard asset life of 10 years. However, we do not accept the creation of new asset classes for 'Hydrogen safety', 'WORM' and 'SWP_570'. They are unnecessary because the capex have not been accepted or the capex can be reallocated to existing asset classes.

We also adjusted the existing 'Other' asset class to split it into two separate classes, and assigned one with the current shorter standard asset life (5 years) and one with a longer standard asset life (15 years).

Table 4.3 sets out our draft decision on the standard asset lives and remaining asset lives for the VTS over the 2023–27 period. We are satisfied the asset lives approved in this draft decision will result in a depreciation schedule that reflects the depreciation criteria of the NGR.[33]

Table 4.3 AER's draft decision on APA's VTS standard and remaining asset lives for the 2023–27 period (years)

Asset class	Remaining asset life	Standard asset life
Pipelines	34.0	55.0
Compressors	18.2	30.0
City gates & Field regulators	18.1	30.0
Odourant plants	12.5	30.0
Gas quality	8.1	10
Other – short life[a]	3.7	5
Other – long life	n/a	15
General buildings	48.6	60.0
General land	n/a	n/a
Integrity inspections	n/a	10
Equity raising costs[b]	n/a	n/a

Source: AER analysis.

(a) With the creation a new asset class for 'Other – long life', we have amended the label for the existing 'Other' asset class to 'Other – short life' to better distinguish the two classes.

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

n/a Not applicable. We have not assigned a standard asset life and remaining asset life to some asset classes either because they have zero capex forecast or existing assets, or because the assets allocated to it are non-depreciating assets.

Our assessment of APA's proposed remaining and standard asset lives are discussed in turn in the following subsections.

4.4.1 Remaining asset lives

We accept APA's proposed weighted average method to calculate the remaining asset lives as at 1 January 2023. The proposed method is a continuation of the approved approach used in the VTS 2018–22 access arrangement and applies the approach as set out in our RFM. However, we do not accept the proposed cap of 30 years on the VTS asset lives. This is discussed below. In accepting the weighted average method, we have updated APA's remaining asset lives to reflect our adjustments to the proposed RFM. For this draft decision, the remaining asset lives as at 1 January 2023 reflect estimated capex for 2021 and 2022.

[33] NGR, r. 89.

We expect that APA will provide audited actual capex for 2021 in its revised proposal. Further, the 2022 estimated capex may be revised based on more up to date information. Therefore, we will recalculate APA's remaining asset lives as at 1 January 2023 using the method approved in this draft decision to reflect any revised capex inputs for the final decision.

4.4.1.1 30 year cap on existing and new assets

APA proposed a 30 year cap on the asset lives of existing and new assets for the VTS. The impact of APA's proposed approach is a $30.8 million (5.0%) increase to total revenues over the 2023–27 period.[34] Table 4.4 shows the asset classes affected by the proposed cap. The cap would affect 75% of existing assets and 66% of new capex. The unaffected asset classes are those that already have a standard asset life of 30 years (for example, 'Compressors', 'City gates & Field regulators' and 'Odourant plants') or for non-system type assets which have shorter lives than the proposed cap (for example, 'Gas quality' and 'Other').

Table 4.4 APA's proposed reductions to VTS asset lives and capital base/forecast capex allocations

Asset classes	Opening value ($m)	Forecast capex for 2023–27 ($m)	Existing standard lives (years)	RFM calculated remaining lives (years)	Proposed standard lives (years)	Proposed remaining lives (years)
Pipelines	692	35	55	34.0	30	30
General buildings	22	0.3	60	48.6	30	30
General land	7	0	n/a	n/a	n/a	30
WORM	n/a	197	55	n/a	30	n/a
SWP_570	n/a	97	55	n/a	30	n/a
Total	**963**	**496**	–	–	–	–

Source: APA, *VTS 2023–27 Access Arrangement – Post-tax revenue model*, December 2021.

There is significant uncertainty as to the future of gas pipelines in Victoria given the commitment for net zero emissions by 2050 from the Victorian Government. We have recently released an information paper on the uncertainty and challenges for the regulation of gas pipelines. This paper highlighted pros and cons in the use of accelerated depreciation to deal with emerging issues for gas networks, and that each decision on the use of accelerated depreciation will depend on a number of circumstances and options available at the time.[35] APA has not provided sufficient justification to satisfy us that accelerated depreciation of the VTS is warranted at this time. Therefore, we have maintained the remaining asset lives as calculated under the weighted average approach and the current standard asset lives that reflect the technical lives of the asset classes will continue to apply for the 2023–27 period. There are a number of considerations that have informed this draft decision.

[34] The assets classes that would be primarily affected by the cap would be the 'Pipelines' and 'General buildings' asset classes.

[35] AER, *Regulating gas pipelines under uncertainty information paper*, November 2021, pp. 29-32.

The case presented by APA for accelerated depreciation was limited. APA only submitted information at a high level. It suggested small steps in accelerating depreciation to guard against possible adverse impacts of a network winding down.[36] It provided limited modelling of future impacts on its own network.[37] We stated in our information paper we expected the business to provide compelling evidence to justify the proposed changes to asset lives.[38] We also expected that to demonstrate stranded asset risk, regulated businesses would have to provide plausible future energy scenarios that covers a spectrum of outlooks from the most pessimistic to the most optimistic for their networks, and to estimate the likelihood (probability) of each scenario.[39] APA has not met our expectations.[40]

While we are open to taking small steps, we note that in this case the remaining life stage of VTS assets is not significantly different from the proposed 30 year cap. We note that about 98% of VTS's existing assets have a WARL of 34 years or less as at 1 January 2023. This means that compared to a network with a technical life of 50 years, for example, the costs of delaying a decision on when the network may become uneconomic are less.[41] We have calculated that to apply a 25 year cap at the next review, for example, to the largest asset class of 'Pipelines' (currently representing 72% of the existing capital base) would incrementally add approximately 1% to revenues compared to the impact of applying a 30 year cap now—that is, a total approximate revenue impact of 6% from a 25 year cap at the next access arrangement review in 5 years. Delaying such a decision could avoid revenues going up by 5% now and then reducing by over 5%[42] at the next access arrangement review, if at that review it is confirmed that the network will be able to reach the end of its current remaining life.

We are also concerned that the proposal to accelerate depreciation is inconsistent with the significant amount of new capex that has been proposed by APA for the 2023–27 period. We consider an important aspect of reducing stranding risk for consumers is by ensuring that capex decisions reflect the level of future uncertainty for the gas pipeline. We acknowledge that some capex will be required to stay in business and for other purposes (such as safety). In our decision on Evoenergy's gas network in the ACT, where we accepted that its network

36 APA discussed analysis by Crew and Kleindorfer which it considered had relevance to the situation for the VTS. The key idea of this analysis was that there is a window of opportunity to increase prices through accelerated depreciation while there are still enough customers on the network for the asset costs to be fully recovered before the network winds down. APA stated that this would reduce risks both for APA and those customers who may find it difficult to switch to alternative energy consumption. Crew, M and Kleindorfer, P, *Economic Depreciation and the Regulated Firm under Competition and Technological Change*, Journal of Regulatory Economics, 4(1), 1992.

37 The CCP28 made similar observations. CCP28, *APA: Victorian Gas Transmission System Access Arrangement 2023–27, CCP28 Advice to the AER,* 18 February 2022, pp. 63-64,.68-69.

38 AER, *Regulating gas pipelines under uncertainty information paper*, November 2021, p. 46.

39 AER, *Regulating gas pipelines under uncertainty information paper*, November 2021, p. 45.

40 Darebin Climate Action Now also stated that whichever form of depreciation is adopted, the AER is correct to ask for compelling evidence in support of the business proposal, as well as treating each one on a case-by-case basis. Darebin Climate Action Now, *Submission to the Australian Energy Regulator re APA Access Arrangement 2023-2027*, 21 February 2022, p. 8.

41 The costs of delay (in terms of larger price shocks from accelerated depreciation) are only likely to be significant if the network was at future access arrangement reviews be expected to cease operation many years sooner than 2052 (consistent with the proposed 30 years cap) and consumers had to meet these costs.

42 Other things being equal, the reversal of a given percentage increase in revenues from accelerated depreciation would require a larger percentage reduction in the future. This is because the RAB will be lower in the future due to the accelerated depreciation and the remaining value would then be spread more thinly over the remaining asset life years. Revenues would then also be lower going forward after such a reversal compared to the counterfactual where the acceleration and then reversal did not occur.

was likely to have a finite life, new capex was very limited and no new connections contemplated.[43] In that case, the ACT legislation was already enacted and clearly signalled an end to the use of gas in that jurisdiction. In contrast, elements of the Victorian policy remain unclear and APA has proposed a significant amount of capex.[44]

APA also appears to presume that consumers bear 100% of any stranding risk. Consumer groups generally disagreed with this proposition.[45] The gas legislation did not contemplate the possible end of life of networks, and we consider it still an open question in such circumstance as to how much risk consumers should bear. We cannot elaborate further at this time given the limited scope of this access arrangement review. However, we do wish to acknowledge that, while we see the minimisation of stranding risk as an important incentive to investment, we consider there are limits to this proposition.

The reversal of a decision to accelerate depreciation also does not appear to have been properly considered by APA. Some consumer groups have expressed concerns that accelerated depreciation now will be paid out as dividends, for example, and that this would leave the VTS exposed if a reversal was required.[46] We acknowledge this concern and would not want to rely exclusively on the possibility of reversal to support an accelerated depreciation proposal. The Victorian Community Organisations observed that raising, and then lowering, prices through depreciation can also provide inefficient signals to consumers for their decision making.[47]

Stakeholder views on the proposal were mixed. The CCP28, Victorian Community Organisations, and Darebin Climate Action Now were against the proposal.[48] The EUAA supported APA's proposal on intergenerational equity grounds,[49] while Red Energy stated

[43] Similarly, for APTPPL's Roma to Brisbane Pipeline, our decision was to accept the proposed accelerated depreciation of reducing the standard asset lives for pipeline assets to reflect the remaining asset lives. We noted the forecast capex was reduced significantly, comprising of replacement and non-network capex, and was not for expansion purposes. Further, the asset types comprising the capex projects generally had shorter technical lives than the proposed standard asset lives.

[44] We noted in the Evoenergy draft decision that it would be difficult for us to support accelerated depreciation to deal with a network reaching an expected end of life where significant new capex was still proposed. AER, *Draft Decision, Evoenergy Access Arrangement 2021 to 2026, Attachment 4, Regulatory depreciation*, November 2020, pp. 21-22.

[45] The CCP28 and Victorian Community Organisations did not accept consumers should completely indemnify a network for stranding risk. Darebin Climate Action Now also noted that 'reasonable opportunity' to recover efficient revenues should not confer an entitlement on the regulated business to accelerated depreciation and that the business should still bear responsibility for past investment decisions. The EUAA noted that it supported the principle that a business recover its approved investments, although it questioned whether the new capex proposed by APA was putting too much stranding risk on consumers.

[46] CCP28, *APA: Victorian Gas Transmission System Access Arrangement 2023–27, CCP28 Advice to the AER,* 18 February 2022, pp .64-66. VCO, *Victorian community organisations' submission to the Australian Energy Regulator (AER) 'Regulating Gas Pipelines Under Uncertainty' Information Paper,* 14 February 2022, p. 12.

[47] VCO, *Victorian community organisations' submission to the Australian Energy Regulator (AER) 'Regulating Gas Pipelines Under Uncertainty' Information Paper,* 14 February 2022, pp. 12-13.

[48] CCP28, *APA: Victorian Gas Transmission System Access Arrangement 2023–27, CCP28 Advice to the AER,* 18 February 2022, pp. 59-70. VCO, *Victorian community organisations' submission to the Australian Energy Regulator (AER) 'Regulating Gas Pipelines Under Uncertainty' Information Paper,* 14 February 2022, pp. 7-18. Darebin Climate Action Now Darebin Climate Action Now, *Submission to the Australian Energy Regulator re APA Access Arrangement 2023-2027*, 21 February 2022, pp. 6-9.

[49] EUAA, *Submission, APA Gas Transmission Access Arrangement*, 18 February 2022, pp. 2, 9.

the AER could use depreciation to ensure a fair allocation of asset stranding risk between current and future gas consumers, although it was concerned with new investments.[50]

Consumer groups also submitted the level of engagement on this issue was limited,[51] although APA stated it had responded to consumers' concerns. Having reviewed submissions from a number of stakeholders and APA on this matter, we consider that the level and quality of APA's consultation in this area has not met our expectation as set out in our information paper.[52] APA did not present a range of scenarios to consumers with respect to demand forecasts, expenditure and any stranding mitigation measures, together with the price impacts of those scenarios. In particular, it did not explain how its proposed extensive capex program is reconciled with its proposal for accelerated depreciation. It presented figures based on a 25 year cap initially in stakeholder engagement workshops, which it subsequently changed to a 30 year cap proposal. APA stated in its proposal that the decision to propose a 30 year cap, rather than a 25 year cap, was to address consumer concerns about the tariff impact.[53] While adjusting the proposal to address stakeholder concerns is appropriate, we consider our expectations have not been met in this regard given the limited options and data presented.

In rejecting APA's proposed cap of 30 years, we also have not accepted the creation of the proposed new 'WORM' asset class and consider that these assets should be reallocated to the existing asset classes.[54] We recognise that the separation of the WORM project was made by APA on an expectation that we would approve the asset life cap of 30 years. As that is not the case, we consider it should be treated as part of the existing asset classes as was expected at the last review for the WORM project. APA's WARL approach to determining remaining asset lives provides a form of accelerated depreciation to the WORM capex, where the majority is to be included in the 'Pipelines' asset class, at the following review by shortening the remaining life from a standard asset life of 55 years through the reweighting process in 2028.[55] At that time the WARL for the 'Pipelines' asset class including the WORM should be about 30-31 years. If the WORM project was separately identified as its own asset class the remaining asset life would be much longer at 52-53 years in 2028. We therefore do not consider maintaining a separate 'WORM' asset class is appropriate as it is not consistent with the WARL approach.

4.4.2 Standard asset lives

We accept the majority of the standard asset lives proposed by APA as they are consistent with those approved for the 2018–22 period, although we do not accept the proposed cap of 30 years on new capex for the reasons explained above.

We also accept APA's proposal to create a new asset class for 'Integrity inspections'. This asset class has a relatively short standard asset life of 10 years. We find this life consistent

50 Red Energy. Letter, *Re: APA Victorian Transmission System - Access Arrangement 2023–27*, 18 February 2022, p. 2.

51 CCP28, *APA: Victorian Gas Transmission System Access Arrangement 2023–27, CCP28 Advice to the AER,* 18 February 2022, pp. 66-68.

52 AER, *Regulating gas pipelines under uncertainty information paper*, November 2021, p. 47.

53 APA, *A look at plans for Victorian Transmission System, APA Victorian Transmission System 2023-2027 access arrangement proposal overview* 1 December 2021, pp. 45-46.

54 Comprising of 'Pipelines', 'Compressors', City gates & Field regulators', and 'General buildings' asset classes.

55 The WARL approach through the reweighting process also lengthens the remaining life of existing assets.

with the expected cycle for inspection works over the network. However, we do not accept the creation of new asset classes for:

- 'WORM' (as discussed above relating to the WORM project). The capex for this project has been reallocated to existing asset classes and their current standard asset lives.
- 'Hydrogen safety' (for program of works to assess the VTS network's ability to handle hydrogen blended gas). We have not accepted any new capex for these projects.[56] Therefore, no standard asset life nor asset class is required for approval.
- 'SWP_570' (relating to expansion works on the South West Pipeline). We have not accepted all the new capex proposed for this project, however, an additional compressor has been approved as discussed in attachment 5. Given the existing 'Compressors' asset class with a standard asset life of 30 years, we have decided that this capex can be allocated to this existing asset class. Therefore, no new standard asset life nor asset class is required for approval in this regard.

APA proposed significant new capex for the 'Other' asset class. Having reviewed what capex projects and associated asset types are included in this asset class, we consider that the 'Other' asset class with a current standard asset life of 5 years should be split into 'Other – short life' and 'Other – long life' asset classes going forward. The 'Other – short life' asset class will continue to have a standard asset life of 5 years for allocating capex and asset types that have a technical life of around 5 years, while the 'Other – long life' asset class will have a standard asset life of 15 years for allocating capex and asset types that have a technical life of around 15 years.

[56] See Attachment 5 for discussion on why the capex for these asset classes was not approved.

A Shortened forms

Shortened form	Extended form
AER	Australian Energy Regulator
APA / APA VTS	APA VTS Australia (Operations) Pty Ltd and APA VTS Australia (NSW) Pty Ltd
Capex	capital Expenditure
NGL	National Gas Law
NGO	National Gas Objective
NGR	National Gas Rules
NPV	net present value
Opex	operating expenditure
PTRM	post-tax revenue model
RFM	roll forward model
RIN	Regulatory Information Notice
RPP	revenue and pricing principles
VTS	Victorian Transmission System
WACC	weighted average cost of capital
WARL	weighted average remaining lives