



Economic Regulation Authority

Draft decision on revisions to the access arrangement for the Goldfields Gas Pipeline

Attachment 6: Depreciation

25 July 2024

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Contents

Attachment 6. Summary	iii
Regulatory requirements.....	1
GGT proposal	2
Base depreciation allowance	2
Asset life cap.....	3
Submissions	7
Draft decision	8
Base depreciation allowance	8
Asset life cap.....	9
Increased uncertainty of future demand	10
Economic lives for gas transmission networks.....	10
Operating environment for gas transmission networks	11
GGT reasons for asset life cap.....	13
Considerations of the ERA	14
Forecast depreciation	17

List of appendices

Appendix 1 List of Tables.....	18
Appendix 2 List of Figures.....	19
Appendix 3 National Gas Rules	20

Note

This attachment forms part of the ERA's draft decision on proposed revisions to the access arrangement for the Goldfields Gas Pipeline. It should be read in conjunction with all other parts of the draft decision, which is comprised of the following document and attachments:

Draft decision on revisions to the access arrangement for the Goldfields Gas Pipeline – Overview, 25 July 2024

- Attachment 1: Access arrangement and services
- Attachment 2: Demand
- Attachment 3: Revenue and tariffs
- Attachment 4: Regulatory capital base
- Attachment 5: Operating expenditure
- Attachment 6: Depreciation (this document)
- Attachment 7: Return on capital, taxation, incentives
- Attachment 8: Other access arrangement provisions
- Attachment 9: Service terms and conditions

Attachment 6. Summary

Depreciation of the capital base is one revenue component of total revenue and allows for the recovery of approved capital expenditure over time.

GGT's AA5 proposed approach to calculating depreciation includes two parts:

- *Base depreciation allowance:* GGT proposed maintaining the current depreciation approach used in AA4 and calculated a base level of depreciation. This approach continued the straight line depreciation of assets, where the proposed base level of depreciation was \$100.9 million (real, 2023) over the AA5 period.
- *Asset life cap:* GGT proposed to cap asset lives at the weighted average remaining life (WARL) of the pipeline and laterals asset class. GGT included an additional \$0.3 million (real, 2023) of revenue by capping asset lives for assets.

The ERA has accepted GGT's base depreciation proposal, which maintains the current depreciation approach used in AA4.

The ERA has considered GGT's asset life cap proposal and has accepted the proposed amount.

The national gas objective requires the consideration of the long-term interests of consumers, which for depreciation involves the allocation of capital costs across current and future consumers for the life of an asset. The Revenue and Pricing Principles also guide regulatory allowances such that GGT is provided with a reasonable opportunity to recover efficient capital expenditure.

The National Gas Rules also details that a depreciation schedule should be designed to allow, as far as reasonably practicable, for adjustments that reflect changes in the expected economic life of a particular asset or group of assets.

The asset life cap approach is consistent with providing a reasonable opportunity to recover efficient capital expenditure and would support efficient investment in the pipeline to maintain a safe and reliable pipeline to service customers over its remaining economic life.

The asset life cap proposal results in a small \$0.2 million (real, 2023) increase in revenue for AA5.

The reasons for the ERA's draft decision in respect of the matters relevant to depreciation and details of the required amendment are set out in this attachment.

Summary of required amendments

- 6.1 GGT must amend the forecast depreciation of the capital base for AA5 to \$69.6 million (real as at 31 December 2023). The yearly values for each year of the access arrangement period are set out in Table 6.5 of Draft Decision Attachment 6.

Regulatory requirements

1. Depreciation on the projected capital base is one of the components (building blocks) for determining the service provider's total revenue requirement using the building block approach, which is required by the regulatory framework set out in the National Gas Rules (NGR).¹ The total revenue requirement is the amount that is needed by the service provider to recover the efficient costs incurred in operating the pipeline (that is, the service provider's cost of service).
2. Rules 88 to 90 set out the following provisions for depreciation:
 - Depreciation schedule (rule 88).
 - The depreciation schedule sets out the basis on which the pipeline assets that form the capital base are to be depreciated for the purpose of determining a reference tariff. The schedule may consist of several separate schedules that each relate to a particular asset or class of assets.
 - Depreciation criteria (rule 89).
 - 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.
 - So that each asset or group of assets is depreciated over the economic life of that asset or group of assets.
 - To allow, as far as reasonably practicable, for adjustments that reflect changes in the expected economic life of a particular asset or group of assets.
 - So that, subject to the rules about capital redundancy, an asset is depreciated only once.
 - To allow for the service provider's reasonable needs for cash flow to meet financing, non-capital and other costs.
 - Compliance with the depreciation criteria may involve the deferral of a substantial proportion of the depreciation, particularly where the present market for pipeline services is immature; the reference tariffs have been calculated on the assumption of significant market growth; and the pipeline has been designed and constructed to accommodate future growth in demand.
 - Calculation of depreciation for rolling forward the capital base from one access arrangement period to the next (rule 90).
 - An access arrangement must contain provisions that govern the calculation of depreciation for establishing the opening capital base for the next access arrangement period. These provisions must resolve whether depreciation of the capital base is to be based on forecast or actual capital expenditure.

¹ Extracts of the NGR that are referenced in this document are provided in Appendix 3 for information. NGR, rule 76.

GGT proposal

3. For AA5, GGT has proposed the recovery of \$101.2 million (real, 2023) in regulatory depreciation, which includes a proposal for capping asset lives. This depreciation amount is equivalent to 11 per cent of the regulatory asset base (RAB) and amounts to 29 per cent of total proposed revenue.
4. GGT's AA5 proposed approach to calculating regulatory depreciation includes two parts:
 - *Base depreciation allowance*: GGT maintained the current depreciation approach used in AA4 and calculated a base level of depreciation. This approach continues the straight line depreciation of assets using the remaining economic lives for the initial capital base.
 - *Asset life cap*: GGT proposed to cap asset lives at the WARL of the pipeline and laterals asset class. GGT included an additional \$340,000 of revenue by capping asset lives for assets.

Base depreciation allowance

5. GGT maintained the current depreciation approach (straight line) used in AA4 and calculated a base level of depreciation. This method allocates the same amount (in real terms) of depreciation to each year of the asset's life.
6. GGT has calculated the base depreciation with the straight line approach as set out in Table 6.1.

Table 6.1: GGT proposed base depreciation for AA5 (\$ million real at 31 December 2023)

	2025	2026	2027	2028	2029	Total
Pipeline and laterals	8.8	8.8	8.8	8.8	8.8	43.8
Main line valve and scraper stations	0.3	0.3	0.4	0.4	0.4	1.8
Compressor stations	2.0	2.4	2.5	2.7	2.8	12.4
Receipt and delivery point facilities	0.3	0.4	0.4	0.4	0.4	2.0
SCADA and communications	0.7	0.6	0.4	0.4	0.4	2.5
Cathodic protection	(0.0)	0.0	0.0	0.1	0.1	0.2
Maintenance bases and depots	0.2	0.3	0.3	0.3	0.3	1.4
Other assets	0.4	1.4	1.7	1.7	1.7	6.8
Equity raising cost	0.0	0.0	0.0	0.0	0.0	0.0
Shared support assets - IOT & cyber security	7.9	6.4	5.6	4.3	2.9	27.1
Shared support assets (net IOT & cyber security)	0.5	0.5	0.6	0.7	0.7	3.0
Base Depreciation	21.0	21.0	20.7	19.7	18.5	100.9

Source: GGT tariff model, ERA analysis.

Note: Depreciation amounts may be negative due to categories that have a negative balance which are corrected through an adjustment in depreciation. This is the case for Cathodic Protection. Totals may not sum due to rounding.

7. GGT proposed a total revenue requirement of \$348.6 million (real, 2023) for AA5. This total revenue includes \$100.9 million (real, 2023) for the base depreciation allowance, which amounts to approximately 29 per cent of the proposed revenue requirement.
8. As required by the NGR, GGT has used the forecast depreciation approach for calculating the opening capital base for AA6.²

Asset life cap

9. GGT has also proposed that an amount of accelerated depreciation be provided in addition to the base level of depreciation shown above.
10. GGT's AA5 proposal has included \$0.3 million (real, 2023) for accelerated depreciation due to the uncertainty of the future of gas and the use of the gas transmission network pipeline. This represents 0.2 per cent of the increase in proposed AA5 revenue or approximately 0.1 per cent of its regulatory asset base.
11. GGT notes that technology and policy developments have resulted in increasing levels of uncertainty around the future of natural gas.³

² NGR 91.

³ GGT, 2025-29 Access arrangement revision proposal overview, January 2024, p. 98.

12. In AA5, GGT has proposed to cap asset lives of existing and new assets to WARL of the pipelines and laterals asset class.⁴ This would ensure that no assets would have an economic life greater than the core pipeline asset. The asset life cap maintains a straight line depreciation approach, but increases the amount of annual depreciation as the asset value is recovered over a shorter period relative to the previous method that had a longer asset life.
13. GGT considered that capping asset lives was justified as the pipelines and lateral classes represent the core assets of the GGP as the physical pipeline, where if this ceased to operate then the remaining assets would also cease to have value.⁵
14. GGT stated that the NGR allows for a change in the economic life for a relevant asset.⁶ Further, GGT has submitted that both the ERA and Australian Energy Regulator (AER) have accepted that there is a possibility that both the role of gas and its transportation will decline in the future.⁷
15. GGT considered that this was a modest change in recognition of the energy transition and the gradual shift away from fossil fuels to more renewable sources among its customers. GGT proposed the change in response to its customers detailing plans to decarbonise their operations.⁸
16. GGT's asset life cap proposal changes the economic life of its assets such that its assets are fully depreciated in 41 years. This will occur in 2065, through the succession of eight further access arrangements (AA13).
17. GGT's proposed regulatory depreciation is presented in Table 6.2.

Table 6.2: GGT proposed regulatory depreciation for AA5 (\$ million real at 31 December 2023)

	2025	2026	2027	2028	2029	Total
Base depreciation	21.0	21.0	20.7	19.7	18.5	100.9
Add: Changes due to capping asset life	0.0	0.0	0.1	0.1	0.1	0.3
Regulatory depreciation - total	21.1	21.1	20.8	19.7	18.6	101.2

Source: ERA analysis from GGT Tariff Model.

Note: Totals may not sum due to rounding.

18. GGT stated that the asset life cap can be reassessed at each access arrangement determination to consider market changes and future expected customer demand.⁹ For example, in subsequent access arrangements the asset life cap could be considered in light of further detail about GGT customers' future decarbonisation plans and with a better understanding of the commercial progress of renewable gases.

⁴ The pipeline and lateral asset class represents the majority of GGP's regulated asset base and has the longest economic life.

⁵ GGT, *2025-29 Access arrangement revision proposal overview*, January 2024, p. 101.

⁶ GGT, *2025-29 Access arrangement revision proposal overview*, January 2024, pp. 102-103.

⁷ GGT, *2025-29 Access arrangement revision proposal overview*, January 2024, p. 103.

⁸ GGT, *2025-29 Access arrangement revision proposal overview*, January 2024, p. 96.

⁹ GGT, *Goldfields Gas Pipeline AA5 - Proposal Overview*, 1 January 2024, p. 101.

19. GGT has calculated the weighted average remaining life (WARL), as shown in Table 6.3 according to the AER's WARL formula, which represents the remaining economic life of the asset based on a capital weighted basis.¹⁰ Applying GGT's proposed method will result in the life of new capital being capped at the WARL, such that all assets will converge towards the pipelines and laterals class. As the pipelines and laterals asset class has the longest WARL, other asset lives may not be capped and will be calculated as per the previous method. This mostly affects investments in pipeline and laterals, main line valve and scraper stations, and maintenance bases and depots asset classes, which are presented in Table 6.3.

Table 6.3: Capital expenditure affected by GGT's depreciation proposal (\$ million, real 2023)

	Proposed capital investment for AA5	AA4 new economic life (years)	WARL (years)	Proposed AA5 new economic life (years)
Pipeline and laterals	0.1	70	41	41, capped at 2065 (reduced)
Main line valve and scraper stations	5.6	50	22	41, capped at 2065 (reduced)
Compressor stations	25.3	30	21	30 (unchanged)
Receipt and delivery point facilities	3.2	30	26	30 (unchanged)
SCADA and communications	0.1	10	7	10 (unchanged)
Cathodic protection	0.5	15	16	15 (unchanged)
Maintenance bases and depots	0.8	50	30	41, capped at 2065 (reduced)
Other assets	13.7	10	8	10 (unchanged)
Equity raising cost	0.3	32	30	32 (unchanged)
Shared support assets - IOT & cyber security	8.1	5	4	5 (unchanged)
Shared support assets (net IOT & cyber security)	5.6	20	19	20 (unchanged)

Source: GGT Tariff Model
GGT, Goldfields Gas Pipeline AA5 - Proposal Overview, 1 January 2024, Table 12-1, p. 102.

¹⁰
$$\text{WARL} = \frac{(\text{Net Capex}_{ICB} \times \text{Remaining Life}_{ICB}) + \sum_{i=1}^N (\text{Net Capex}_i \times \text{Remaining Life}_i)}{\text{Net Capex}_{ICB} + \sum_{i=1}^N \text{Net Capex}_i}$$

20. GGT engaged in limited stakeholder consultation regarding its proposal to cap asset lives, where the broad approach was disclosed but with no numerical figures provided until its initial proposal.¹¹

¹¹ GGT, *Goldfields Gas Pipeline 2025-29 Access Arrangement First look at positions*, November 2023, p. 12.

Submissions

21. There were no submissions that addressed GGT's proposal for either depreciation or capping asset lives.

Draft decision

22. Regulatory depreciation is one revenue component of total revenue allowed under the national gas framework. Regulatory depreciation accounts for the recovery of previously approved capital expenditure that has been incorporated into the regulatory asset base.
23. The profile of regulatory depreciation will affect the speed at which the recovery of capital occurs and how the amount of depreciation will change over time. Regulators have traditionally used a straight line depreciation approach that recovers the same amount of depreciation each year. However, the depreciation profile could bring forward the recovery of capital or defer the recovery of capital through various mechanisms. The same amount of depreciation is recovered over the life of the asset under the different depreciation profiles.

Base depreciation allowance

24. The ERA has considered GGT's proposed level of depreciation for its base depreciation allowance (excluding the asset life cap).
25. The current access arrangement specified that the depreciation of the opening capital base for AA5 is the forecast depreciation included in the AA4 target revenue.
26. The ERA is satisfied that the depreciation values used in GGT's calculation of the opening capital base for AA5 are consistent with the depreciation values included in the AA4 target revenue.
27. For AA5, GGT proposes to retain the methods set out in the current access arrangement which specify depreciation is calculated using:
 - Economic lives specified in the access arrangement consistent with AA4.
 - The straight line depreciation method as was used in AA4.
 - The forecast method of depreciation for the AA6 opening capital base.
28. The ERA accepts GGT's approach to calculate its base level of depreciation, which is consistent with its existing approach.
29. GGT has proposed two new capital expenditure categories:
 - Shared support assets – Information technology and operational technology (ITOT) and cyber security, with a proposed economic life of five years.
 - Shared support assets – net ITOT & cyber security, with the proposed economic life of 20 years. These longer lives represent the proposed capital expenditure for a range of APA Group's shared corporate costs from national property costs, national support functions, to programs such as risk-based pressure equipment inspections, SCADA alarm rationalisation and cathodic protection.
30. Attachment 4 discusses the ERA's draft decision for capital expenditure. As the shared support assets was considered to be non-conforming expenditure, the ERA does not accept GGT's asset life proposal for that expenditure.

31. The ERA has estimated forecast depreciation for the revised levels of capital expenditure in the draft decision for AA5. Consistent with the required amendments in this draft decision, the ERA has recalculated total forecast base depreciation for AA5 as \$69.4 million (Table 6.4).

Table 6.4: GGT draft decision for AA5 base regulatory depreciation (\$ million real at 31 December 2023)

	2025	2026	2027	2028	2029	Total
Pipeline and laterals	8.8	8.8	8.8	8.8	8.8	44.0
Main line valve and scraper stations	0.3	0.3	0.3	0.4	0.4	1.7
Compressor stations	2.2	2.6	2.7	2.9	2.9	13.3
Receipt and delivery point facilities	0.0	0.1	0.1	0.1	0.1	0.4
SCADA and communications	0.6	0.4	0.2	0.2	0.2	1.6
Cathodic protection	0.0	0.0	0.0	0.0	0.0	0.0
Maintenance bases and depots	0.2	0.3	0.3	0.3	0.3	1.4
Other assets	0.4	1.4	1.7	1.7	1.7	6.9
Equity Raising Cost	0.0	0.0	0.0	0.0	0.0	0.0
Base Depreciation	12.4	13.9	14.2	14.4	14.5	69.4

Source: ERA tariff model, ERA analysis.

Asset life cap

32. GGT proposed to cap asset lives at the WARL of the pipeline and laterals asset class. This has the effect of limiting the maximum economic life of any asset to 2065.
33. Several sections of the NGL are relevant to determining regulatory depreciation including:
- The national gas objective requires that the depreciation schedule should be used to create prices that promote the efficient use of the network, including recognising the long-term interest of consumers.¹²
 - The revenue and pricing principles provide additional guidance on economic regulation and pricing, including that:¹³
 - A service provider should be provided a reasonable opportunity to recover at least its efficient costs, including the recovery of its regulatory asset base.
 - A regulator should have regard to the economic costs and risks of potential under- and over-investments in a pipeline, including its effect on the provision of service to future consumers.

¹² NGL, section 23.

¹³ NGL, section 24.

- A regulator should have regard to the economic costs and risk of the potential for under-use and over-use of a pipeline, including price signals that are sent to consumers.
34. Under rule 89(1) of the NGR, the depreciation schedule is also guided by the following principles to provide depreciation such that:
- Reference tariffs will vary, over time, in a way to promote efficient use of the network.
 - To allow, as far as reasonably practicable, for adjustment reflecting changes in the expected economic life of a particular asset.
 - That there can be no double (or greater) recovery of invested capital.

Increased uncertainty of future demand

35. Since GGT's last access arrangement was approved, technology and policy developments have resulted in increasing levels of uncertainty around the future of natural gas. These developments have included:
- The introduction of federal, state and corporate targets and policies to drive emissions reduction over time.
 - Improvements in electrical equipment and technologies that can be used as substitutes for natural gas.
 - Changes in customer preferences and attitudes towards decarbonisation.
36. These changes raise uncertainty as to the role of gas pipelines in the future where decarbonisation is pursued by governments and customers.

Economic lives for gas transmission networks

37. In the recent past, the prospect of decarbonisation and reduced use of gas was not considered to be likely by pipelines, customers, government, or regulators. The regulatory arrangements adopted promoted gas usage and utilisation.
38. The economic life of pipeline assets was considered to be roughly equivalent to its technical/engineering life. Infrastructure assets generally have a longer technical life than assets for other industries, which was especially the case for gas networks in Western Australia. Historically, the economic life in Western Australia was a period of 70 years for pipeline capital expenditure. By way of contrast, gas transmission pipelines in Queensland had standard lives of 80 years for the pipeline asset class, which reduced to under 50 years.¹⁴ In Victoria, transmission pipelines have economic lives of around 30 years.¹⁵ Other economic regulators in New Zealand and the United Kingdom have chosen 45 years as their economic lives for new gas investments in recent years.^{16, 17}

¹⁴ AER, *Attachment 4: Regulatory depreciation – Draft decision – Roma to Brisbane Pipeline Access Arrangement 2022-27*, pp. 20-25.

¹⁵ AER, *APA Victorian Transmission System (VTS) Access Arrangement 2023 to 2027 Attachment 4 Regulatory Depreciation*, December 2022, p. 9.

¹⁶ New Zealand Commerce Commission, *Default price-quality paths for gas pipeline businesses from 1 October 2022 – Final Reasons Paper*, 31 May 2022, pp. 99-100.

¹⁷ Ofgem, *R1100-2 Final Determinations – Finance Annex*, 3 February 2021, pp. 112-113.

The longer economic lives in Western Australia mean that a larger proportion of the RAB is yet to be recovered.

39. There is increasing uncertainty about the future of gas and its role in the economy and society. Policy developments on decarbonisation are occurring at both state and federal levels, along with technological improvements and future changing consumer preferences which are increasing the variability of expected outcomes for gas pipelines beyond the AA5 period.
40. In 2021, the ERA considered the increased uncertainty of gas networks in its decision on the Dampier to Bunbury Natural Gas Pipeline (DBNGP). At that time, the ERA considered that there was a likelihood that the use of the DBNGP would decline over time due to technological and policy change, and accepted DBP's proposed reduction in the economic life of the pipeline. At the time, DBP's asset life was capped to 2063.¹⁸
41. Other economic regulators such as the AER have explored the regulation of gas networks under uncertainty.¹⁹ In its review, the AER expressed a preference for using accelerated depreciation to manage this uncertainty and has recently allowed it for Victorian gas transmission network service providers.²⁰

Operating environment for gas transmission networks

42. The operating environment for gas transmission networks is challenging to predict over the medium to long term due to the uncertain speed and extent of decarbonisation.
43. The future of gas is likely to be different in each Australian state and territory, given differing levels of government policy support that ranges from prohibiting new gas connections to support for renewable gases, or no explicitly stated position.
44. One commonality across all Australian governments is a net zero target by 2050.²¹ The Commonwealth Government has set both a 2030 target of 43 per cent below 2005 levels and a net zero target by 2050, which are presented in Figure 6.1.

¹⁸ ERA, *Final decision on proposed revisions to the Dampier to Bunbury Natural Gas Pipeline access arrangement 2021 to 2025*, April 2021, pp. 313-357.

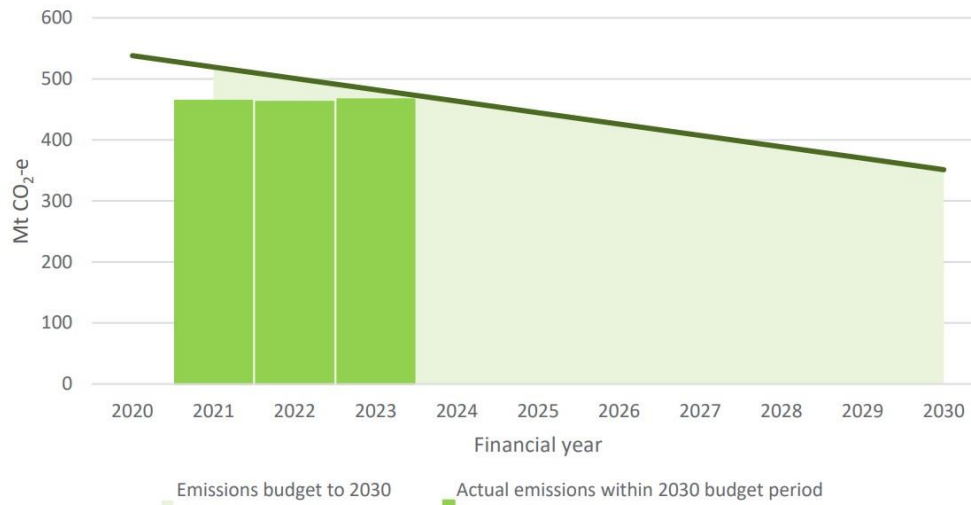
¹⁹ AER, *Information Paper: Regulating gas pipelines under uncertainty*, November 2021.

²⁰ AER, *Final decision: APA VTS access arrangement 2023 to 2027 Overview*, December 2022, p. 17.

²¹ AEMC, *Emissions targets statement under the National Energy Laws*, February 2024.

Figure 6.1: Australian national emissions targets for 2030 and 2050

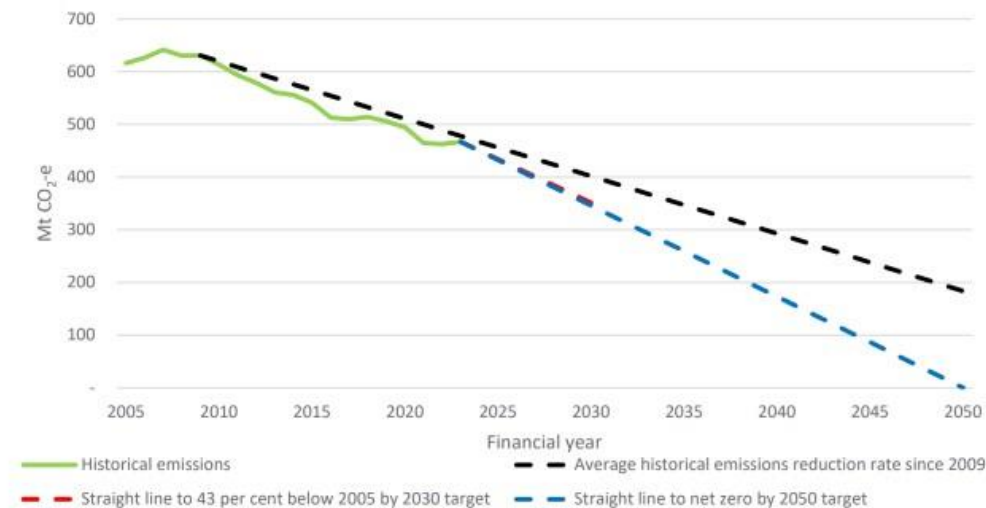
Figure 3.2: Progress against Australia’s 2021–2030 emissions budget



Notes: Includes preliminary estimates of emissions from April to June 2023.

Source: (DCCEEW, 2023m)

Figure 3.1: Progress to Australia’s 2030 emissions reduction target



Source: Climate Change Authority (2023).²²

45. The Western Australian Government has announced a net zero target by 2050 and released the Sectoral Emissions Strategy for Western Australia in December 2023, which outlines the transition strategy to net zero emissions.²³ The strategy expects that total gas use will decline as illustrated in Figure 6.2 but has not explicitly outlined a pathway to achieve those reductions.

²² Climate Change Authority, *2023 Annual Progress Report*, October 2023, pp. 4-5.

²³ WA Government, *Sectoral emissions reduction strategy for Western Australia – Pathways and priority actions for the state’s transition to net zero emissions*, December 2023.

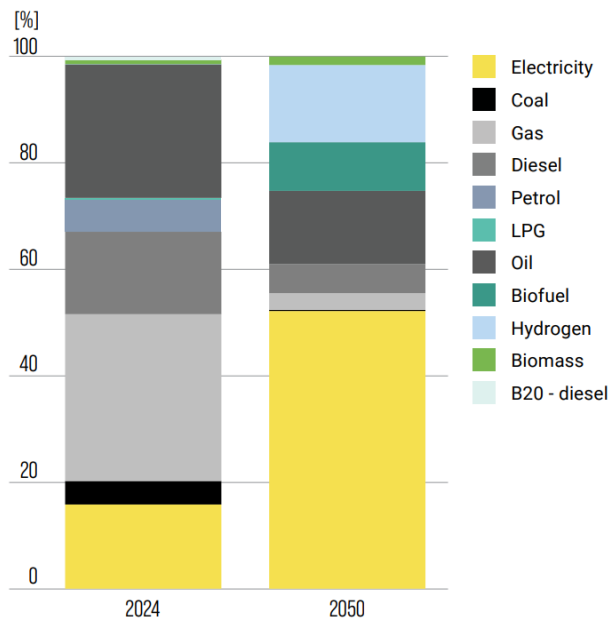
Figure 6.2: WA Sectoral Emissions Strategy indicative change in fuel mix

Figure 10: Indicative change in fuel mix in Western Australia from 2024 to 2050

Source: WA Government (2023), *Sectoral emissions reduction strategy for Western Australia*, p. 15.

Note: Fuel mix refers to the mix of energy inputs used across Western Australia. Electricity can be produced from either fossil fuel or renewable sources. Achieving net zero emissions across the economy requires the electricity sector to decarbonise faster than other sectors while simultaneously meeting a step change in total demand as other sectors electrify.

46. The Commonwealth Government released the Future Gas Strategy in May 2024.²⁴ This strategy document reaffirmed Australia's commitment to supporting net zero emissions by 2050, and identified guiding principles for an orderly transition. The ones relevant to gas transmission pipelines include:
- The availability of affordable gas for Australian users throughout the transition.
 - Gas markets adapting to remain fit for purpose during the energy transformation.
47. GGT's customers are large gas users, some of which now fall under the Federal Government's Safeguard Mechanism. The Safeguard Mechanism places obligations on liable parties for increasing emissions reductions on a path to net zero by 2050.

GGT reasons for asset life cap

48. GGT submitted that both the ERA and AER have accepted that there is a likelihood that both the role of gas and its transportation will decline in the future, where the NGR allows for a change in the economic life for a relevant asset.²⁵

²⁴ Australian Government, *Future Gas Strategy*, May 2024.

²⁵ GGT, *Goldfields Gas Pipeline AA5 - Proposal Overview*, 1 January 2024, pp. 102-103.

49. GGT referred to the Western Australian Government’s policy commitment to achieving net zero emissions by 2050. In particular, GGT pointed to net zero emissions mining and decarbonisation projects via the adoption of alternative energy sources and energy efficient processes. GGT also conducted a customer survey which indicated that at least 65 per cent of respondents were considering plans to decarbonise, where two customers currently have on-site renewable sources.²⁶
50. GGT considered that it is accepted that the future of gas is uncertain, and as a prudent operator GGT would take steps to mitigate the risk of stranded or under-used assets. GGT concluded that its proposed asset life cap method would avoid situations where new conforming capital expenditure would have a greater asset life than the related pipeline to which it is attached. GGT considered that its proposal would result in more stable prices going into the future.
51. GGT conceded that its proposal to cap asset lives will result in capital being returned to investors quicker than retaining the standard lives, but submitted that while its near-term future appears healthy, the medium-term to longer-term outlook is uncertain. GGT further submitted that its proposed depreciation method is a precautionary approach to manage the risk of under-use or asset stranding which would have financial consequences for gas pipeline investors.²⁷
52. GGT also considered that under rule 89(1)(a) of the NGR, the provision of accelerated depreciation will promote economic growth in the market for reference services as it would allow for gas pipelines to compete with alternative sources of energy.²⁸
53. GGT stated that it is prudent to cap asset lives now rather than do nothing as GGT considers that it is a modest change in response to an uncertain future role of gas. Further, GGT submitted that as a prudent operator it should take measures to reduce uncertainty, where its proposal is a “pragmatic and least regrets approach to managing that potential risk.”²⁹
54. GGT advised that its proposal to cap the asset life at 2065 was influenced by the ERA’s final decision for the DBNGP access arrangement, where the ERA capped the life of the pipeline to 2063. GGT considered that while GGP and the DBNGP serve different types of customers, their futures are aligned and share the same fate of uncertainty about their future roles.³⁰

Considerations of the ERA

The national gas objective and the revenue and pricing principles

55. The national gas objective requires the consideration of economic efficiency, where the choice of depreciation can promote price signals to guide the efficient use of, and investment in, gas pipelines. The revenue and pricing principles also require the service provider to be given a reasonable opportunity to recover efficient costs.

²⁶ GGT, *Goldfields Gas Pipeline AA5 - Proposal Overview*, 1 January 2024, pp. 104-105.

²⁷ GGT, *Goldfields Gas Pipeline AA5 - Proposal Overview*, 1 January 2024, p. 105.

²⁸ GGT, *Goldfields Gas Pipeline AA5 - Proposal Overview*, 1 January 2024, p. 104.

²⁹ GGT, *Goldfields Gas Pipeline AA5 - Proposal Overview*, 1 January 2024, p. 105.

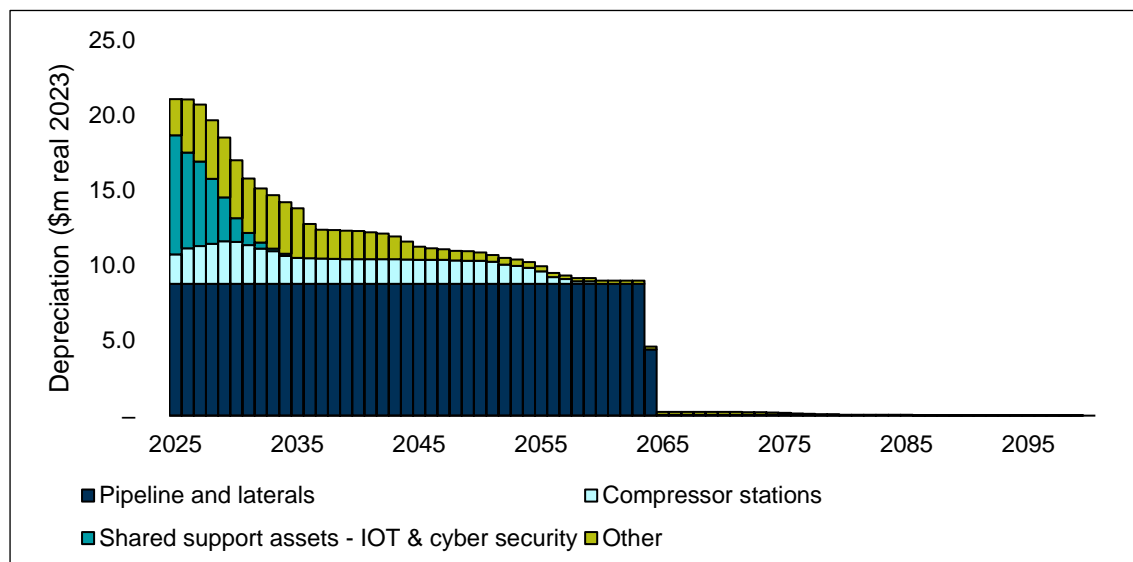
³⁰ GGT, *Goldfields Gas Pipeline AA5 - Proposal Overview*, 1 January 2024, p. 104.

56. The NGR rule 89 details that the depreciation schedule should be designed to allow, as far as reasonably practicable, for adjustments that reflect changes in the expected economic life of a particular asset or group of assets.

Asset life cap

57. For AA5, GGT proposed that the AA4 straight line method be maintained but with a change to the way that asset lives are calculated from 2025 onwards. The proposed method can be summarised as follows:³¹
- Calculate the WARL of the pipelines and laterals asset class.
 - Cap the lives of all assets prior to AA5 to the WARL.
 - Cap the asset lives for new capital expenditure to the WARL.
58. GGT's proposed method is based on ensuring that there are no assets that have an economic life that exceeds that of the main pipeline and laterals asset class. The majority of GGP's regulated asset base is comprised of the initial capital base, where approved capital expenditure since 2000 has resulted in a small percentage of the RAB having asset lives that approach the next century. Capping asset lives at the WARL will achieve a re-alignment of costs such that the RAB will be fully recovered once the pipelines and laterals assets of the initial capital base are fully written down.
59. The full schedule of regulatory depreciation assuming no capping of asset lives is illustrated in Figure 6.3. This indicates that approximately \$3.1 million (real, 2023) of regulatory depreciation lies beyond the 2065 WARL. GGT's proposal to cap asset lives would re-profile the depreciation amounts such that there will be no values beyond 2065. Importantly, GGT's proposal is not to reduce the current WARL of the pipelines and laterals asset class.

Figure 6.3: Regulatory depreciation scheduled with no asset life capping



Source: GGT tariff model.

Note: Expenditure limited to proposed AA5 figures.

³¹ GGT, *Goldfields Gas Pipeline AA5 - Proposal Overview*, 1 January 2024, p. 101.

60. Approximately \$6.1 million (real, 2023) of capital expenditure would be affected by this proposed change, which amounts to 1.3 per cent of its regulated asset base.
61. GGT's proposal raised the possibility that the capped asset lives could either apply to new investments (AA5 onwards), or to also include investments made after the initial capital base to AA4. The ERA considers that for consistency, any capped asset life approach should apply to both. Allowing for one but not the other would result in some assets with asset lives exceeding that of the main pipeline, which would not be an effective implementation of a capped asset life strategy.
62. In detailing the implementation of the capped asset life strategy, GGT detailed three ways that the change could be implemented in the tariff model:
- Scenario 1: no change to asset lives, continue previous method.
 - Scenario 2: capped asset life proposal from 2024 onwards, affecting old and new capital expenditure.
 - Scenario 3: retrospective application of asset life cap, affecting old and new capital expenditure.
63. The ERA considers that scenario two is the one that most closely describes the approach proposed by GGT. Additionally, GGT needs to modify its approach in calculating the economic life of equity raising costs to make it consistent with its capped life proposal.
64. The ERA has identified changes to the financial model in order to implement the capped asset life proposal:
- The tariff model should adopt Scenario 2.³²
 - The equity raising costs must be calculated on the basis of the draft decision asset lives, along with the [opening balance as of 2030].³³
65. The net effect of GGT's proposal is to ensure that no asset class will have an asset life greater than the pipeline and laterals asset class WARL, but ones that have a life below the WARL are unaffected.
66. The asset life cap proposal results in small \$0.2 million (real, 2023) increase in revenue for AA5. This is unlikely to have a material impact on consumption or tariffs.
67. The asset life cap approach is consistent with providing a reasonable opportunity to recover efficient capital expenditure and would support efficient investment in the pipeline to maintain a safe and reliable pipeline to service customers over its remaining economic life. As an example for illustrative proposes:
- The core GGP physical pipeline has a life that runs to 2065.

³² While scenario 3 is intended to implement the capped asset life proposal to include all capital expenditure post the initial capital base to the current access arrangement, as currently implemented it changes the asset lives for capital expenditure in the periods 2000 onwards in a retrospective manner. Changes to asset lives should be considered prospectively, such that the changes only occur for the AA5 period. This will cause a re-alignment and discontinuity in asset lives in the period between the last year of AA4 and first year of AA5. This is what scenario 2 is accomplishing and should be used as the basis of any future models.

³³ Currently equity raising costs are a static number derived from the AA4 economic lives, which is not consistent with GGT's proposal to cap asset lives. Additionally, the amount of equity raising costs is currently a weighted average based on the opening asset balances as of 2020. This needs to be updated to be a forward looking estimate based on the last year of the AA5 period.

- A small \$2 million pipeline investment is required in 2024 to maintain safety. Pipeline assets currently have an economic life of 70 years.
 - The recovery of the new required pipeline investment would only occur by 2094, which occurs well past when the pipeline's life ends in 2065.
 - Therefore, the pipeline operator would likely not be able to recover its new investment in the pipeline and would be discouraged from maintaining safety and reliability to the detriment of current and future customers.
68. As required by the NGR economic lives can be re-evaluated and updated from one access arrangement period to the next to reflect the best information available. This provides flexibility overtime.
69. The ERA considers that the capped asset life approach as proposed by GGT is capable of preserving investment incentives, which are in the long-term interests of consumers with respect to quality and safety.

Draft decision on accelerated depreciation

70. The ERA considers that capping asset lives is reasonable and supports efficient outcomes under the NGL and NGR. This provides GGT a reasonable opportunity to recover efficient capital expenditure and this is unlikely to have a material impact on customers during AA5.

Forecast depreciation

71. The ERA accepts GGT's approach to calculate its base level of depreciation, which is consistent with its existing approach.
72. Additionally, the ERA has accepted GGT's proposal to capped asset lives.
73. The ERA's forecast regulatory depreciation allowance is detailed in Table 6.5.

Table 6.5: GGT draft decision for AA5 regulatory depreciation (\$ million real at 31 December 2023)

	2025	2026	2027	2028	2029	Total
Base depreciation	12.4	13.9	14.2	14.4	14.5	69.4
Add: Changes due to capping asset life	0.0	0.1	0.1	0.0	0.0	0.2
Regulatory depreciation - total	12.4	14.0	14.3	14.4	14.5	69.6

Required Amendment

- 6.1 GGT must amend the forecast depreciation of the capital base for AA5 to \$69.6 million (real as at 31 December 2023). The yearly values for each year of the access arrangement period are set out in Table 6.5 of Draft Decision Attachment 6.

Appendix 1 List of Tables

Table 6.1:	GGT proposed base depreciation for AA5 (\$ million real at 31 December 2023).....	3
Table 6.2:	GGT proposed regulatory depreciation for AA5 (\$ million real at 31 December 2023).....	4
Table 6.3:	Capital expenditure affected by GGT's depreciation proposal (\$ million, real 2023).....	5
Table 6.4:	GGT draft decision for AA5 base regulatory depreciation (\$ million real at 31 December 2023).....	9
Table 6.5:	GGT draft decision for AA5 regulatory depreciation (\$ million real at 31 December 2023).....	17

Appendix 2 List of Figures

Figure 6.1: Australian national emissions targets for 2030 and 2050.....	12
Figure 6.2: WA Sectoral Emissions Strategy indicative change in fuel mix	13
Figure 6.3: Regulatory depreciation scheduled with no asset life capping.....	15

Appendix 3 National Gas Rules

The National Gas Law (NGL) and National Gas Rules (NGR), as enacted by the *National Gas (South Australia) Act 2008*, establish the legislative framework for the independent regulation of certain gas pipelines in Australia. The *National Gas Access (WA) Act 2009* implements a modified version of the NGL and NGR in Western Australia.

The legislative framework for the regulation of gas pipelines includes a central objective, being the national gas objective, which is:

... to promote efficient investment in, and efficient operation and use of, natural gas services for the long term interests of consumers of natural gas with respect to—

- (a) price, quality, safety, reliability and security of supply of natural gas; and
- (b) the achievement of targets set by a participating jurisdiction—
 - (i) for reducing Australia’s greenhouse gas emissions; or
 - (ii) that are likely to contribute to reducing Australia’s greenhouse gas emissions.

Note—

The AEMC must publish targets in a targets statement: see section 72A.³⁴

The following extracts of the NGR, as they apply in Western Australia, are provided for information to assist readers.

76 Total revenue

Total revenue is to be determined for each regulatory year of the access arrangement period using the building block approach in which the building blocks are:

- (a) a return on the projected capital base for the year (See Divisions 4 and 5); and
- (b) depreciation on the projected capital base for the year (See Division 6); and
- (c) the estimated cost of corporate income tax for the year (See Division 5A); and
- (d) increments or decrements for the year resulting from the operation of an incentive mechanism to encourage gains in efficiency (See Division 9); and
- (e) a forecast of operating expenditure for the year (See Division 7).

...

88 Depreciation schedule

- (1) 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.
- (2) The depreciation schedule may consist of a number of separate schedules, each relating to a particular asset or class of assets.

89 Depreciation criteria

³⁴ NGL, section 23.

The national gas objective has changed since the last review of GGT’s access arrangement. The amended objective came into effect in Western Australia on 25 January 2024. See: *Western Australian Government Gazette 24 January 2024 No.8* ([online](#)) (accessed July 2024).

- (1) The depreciation schedule should be designed:
 - (a) so that reference tariffs will vary, over time, in a way that promotes efficient growth in the market for reference services; and
 - (b) so that each asset or group of assets is depreciated over the economic life of that asset or group of assets; and
 - (c) 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; and
 - (d) so that (subject to the rules about capital redundancy), an asset is depreciated only once (ie that the amount by which the asset is depreciated over its economic life does not exceed the value of the asset at the time of its inclusion in the capital base (adjusted, if the accounting method approved by the [ERA] permits, for inflation)); and
 - (e) so as to allow for the service provider's reasonable needs for cash flow to meet financing, non-capital and other costs.
- (2) Compliance with subrule (1)(a) may involve deferral of a substantial proportion of the depreciation, particularly where:
 - (a) the present market for pipeline services is relatively immature; and
 - (b) the reference tariffs have been calculated on the assumption of significant market growth; and
 - (c) the pipeline has been designed and constructed so as to accommodate future growth in demand.

90 Calculation of depreciation for rolling forward capital base from one access arrangement period to the next

- (1) A full access arrangement must contain provisions governing the calculation of depreciation for establishing the opening capital base for the next access arrangement period after the one to which the access arrangement currently relates.
- (2) The provisions must resolve whether depreciation of the capital base is to be based on forecast or actual capital expenditure.