



Economic Regulation Authority

Draft determination of Arc Infrastructure depreciated optimised replacement costs and depreciation schedule

Attachment 6: Depreciation

26 March 2026

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We acknowledge their continuing connection to culture and community, their traditions and stories. We commit to listening, continuously improving our performance and building a brighter future together.

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Contents

Attachment 6. Summary	1
Depreciation	4
Arc Infrastructure Proposal	6
Comments in submissions	11
RP Infrastructure advice	19
ERA Considerations	25
Depreciation methodology considerations	26
Remaining life assessment hierarchy.....	27
Accelerated depreciation	28
Limitations of service capability adjustment	29
Asset class considerations	30
Right-of-way – Formation, earthworks, and clearing and grubbing	31
Right of way – Access roads	33
Track – Rail	34
Track – Sleepers	35
Track – Ballast.....	36
Signalling and Control Systems	37
Final depreciation amounts	38
List of appendices	
Appendix 1 List of Tables	40

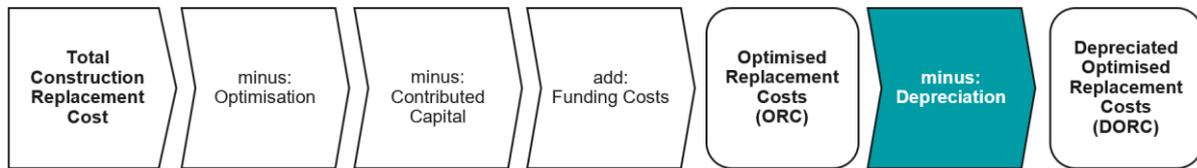
Note

This attachment relates to the depreciation component of the DORC.

This attachment forms part of the ERA's draft determination on the Arc DORC and Arc Depreciation Schedule. It should be read in conjunction with all other parts of the draft determination, which comprises of the following documents and attachments:

- Overview
- ERA's draft determinations of depreciated optimised replacement costs by route section
- ERA's draft determinations of depreciated optimised replacement costs (model)
- ERA's draft determinations of depreciation schedule (model)
- Attachment 1: Information used by the ERA
- Attachment 2: Total construction replacement costs
- Attachment 3: Optimisation
- Attachment 4: Capital contributions
- Attachment 5: Funding cost during construction
- **Attachment 6: Depreciation (this document)**
- Attachment 7: DORC summary
- Attachment 8: Depreciation schedules

Attachment 6. Summary



Depreciation adjusts the hypothetical new-build cost represented by the optimised replacement cost (ORC) to reflect the asset's current economic value. Depreciation accounts for the asset's age, condition, and remaining useful life, representing the portion of the asset base consumed through wear and tear. The reduction of the optimised replacement cost by depreciation forms the determination of the DORC.

Arc's Costing Principles regarding depreciation provide guidance on determining economic lives, with the consideration of both the asset's current physical condition and the forecast rate of asset consumption. Arc has to compare the economic life of an asset to the Standard Design Life and reduce the asset's optimised replacement cost accordingly.

For example, a rail asset with an optimised replacement cost of \$100 million may have a standard design life of 50 years when it is new and a remaining economic life of 10 years. That is, the asset has been used for 40 years. This means that 80 per cent of the asset's economic use has been consumed (the depreciation rate). The depreciation rate multiplied by the ORC equals \$80 million (the depreciation amount).

Arc's statement included depreciation of \$14.8 billion which amounted to around 49 per cent of Arc's estimated optimised replacement cost of \$30.1 billion. This depreciation amount is largely comprised of track (55 per cent) and signalling and control assets (34 per cent). Arc's approach involved analysing each asset category and assessing depreciation based on available asset life information. For assets with missing information, Arc used an average condition from assets that had condition data available. Arc did not depreciate certain assets associated with land on the basis that they do not deteriorate and these assets are entered into the DORC at their full optimised replacement cost values. Arc proposed to use the straight-line depreciation method.

All stakeholder submission disagreed with Arc's amount and approach to depreciation. All stakeholders considered that Arc's proposed depreciation was too low, which resulted in DORCs that were too high. Most stakeholders considered that Arc's provision of information for depreciation was inadequate. Some stakeholders provided detailed, asset specific criticisms and stated that Arc selectively applied the costing principles to its benefit. Most stakeholders questioned whether it was appropriate to treat assets with missing information in the manner proposed by Arc. Further, most stakeholders disagreed that land associated assets should be perpetual in nature and these assets should be depreciated. There was stakeholder support for the straight-line depreciation method.

The ERA accepted the majority of Arc's proposed depreciation methods across the asset categories, the ERA recalculated depreciation on the basis of:

- the ERA's estimated ORC
- some adjustments to specific depreciation approaches
- asset specific changes

- the introduction of accelerated depreciation to route sections with material customer demand reductions.

The ERA's optimised replacement cost in this draft decision is \$16.9 billion, compared to Arc's \$30.1 billion.

The ERA's refinement to Arc's depreciation methodology includes changes to the default approach of a minimum of 10 per cent remaining life for assets with no condition information available. This modifies Arc's proposed approach which only applied the 10 per cent for assets where condition data does not exist, but commissioning date is known. The ERA notes that Arc's asset condition information was not complete and seeks further information from Arc.

The ERA includes accelerated or greater depreciation to routes where customer utilisation has materially declined along with a strong expectation that future route demand is terminal. This results in \$462 million of accelerated depreciation.

Arc's proposal has in part applied a 100 per cent depreciation rate to non-operational assets, while the ERA has instead not included non-operational assets in the ORC. This has necessitated adjustments in depreciation rates to maintain consistency.

Specific asset considerations of the ERA are outlined in the sections below.

Right-of-way – Formation, earthworks, and clearing and grubbing

In its statement, Arc has applied zero depreciation for formation, earthworks and clearing and grubbing assets with an optimised replacement cost of \$2.8 billion, along with zero depreciation in the depreciation schedule.

In the draft decision, the ERA also applies zero accumulated depreciation to the formation, earthworks, and clearing and grubbing assets.

Right-of-way – Access roads

Arc's included depreciation of \$330.2 million, around 39 per cent of Arc's estimated optimised replacement cost of \$839.1 million.

The ERA accepts Arc's approach to depreciate access roads which results in a depreciation rate of around 39 per cent. However, the ERA's assessment of the construction costs of access road is zero which results in no depreciation being allocated.¹

Track – Rail

Arc's statement included depreciation of \$3.2 billion, around 38 per cent of Arc's estimated optimised replacement cost of \$8.3 billion.

The ERA reviewed Arc's rail life assessment and considers that it skews remaining asset life upwards. The ERA's draft decision has adjusted the allocations to reduce any skews to remaining asset life and results in a depreciation rate of around 47 per cent.

¹ The draft decision of the ERA is that there is insufficient evidence of the existence of access roads across the entire network to establish costs on a route section basis, and in reference to stakeholders submissions that some access roads are made in formation work, that the costs of access road costs are adequately captured in formation costs.

Track – Sleepers

Arc included depreciation of \$1.4 billion, around 46 per cent of Arc's estimated optimised replacement cost of \$3.1 billion. Arc's Costing Principles state that there are three sleeper types (concrete, steel and timber), where Arc estimated the remaining life of sleepers assuming that all sleepers are concrete.

In its draft decision, the ERA has aligned the depreciation approach for timber sleepers with the standard design life of 15 years in the Costing Principles. This means that the remaining life for timber sleepers is reduced as the ERA's method allocates more assets into the minimum 10 per cent remaining useful life category. In the draft decision, the depreciation rate for sleepers is around 69 per cent.

Track – Ballast

Arc included depreciation of \$126.3 million, around 9 per cent of Arc's estimated optimised replacement cost of \$1,472.2 million. Arc's approach for ballast diverges from the Costing Principles and appears to apply a useful life of 878 years.

In the draft decision the ERA has aligned the depreciation approach for ballast with the standard design life of 50 years in the Costing Principles. Given the assumed commissioning dates, the remaining life for most ballast lies at the minimum 10 per cent remaining useful life instead of Arc's assumption that those ballast assets were mostly undepreciated. In the draft decision, the depreciation rate for ballast is around 74 per cent.

Draft decision

The draft decision applies a total depreciation amount of \$9.1 billion, which is around 54 per cent of the ERA's estimated optimised replacement cost. This amount is lower than Arc's proposed \$14.8 billion, being 42 per cent of Arc's proposed optimised replacement cost on a corrected basis – that is, excluding non-operational assets. While the ERA applies a lower dollar amount for depreciation than Arc, this is due to the ERA calculating a lower optimised replacement cost. The ERA applies a 13 percentage point higher depreciation rate than proposed by Arc.

The ERA seeks stakeholder feedback on its depreciation approach, including on specific asset classes and the application of accelerated depreciation on routes with material customer demand reductions. Further stakeholder feedback will help refine depreciation across assets and the rail network's different routes.

Depreciation

1. The Depreciated Optimised Replacement Cost (DORC) estimation process begins by estimating the Optimised Replacement Cost (ORC), which calculates the expense of constructing a modern equivalent asset using current technology and efficiency standards, often excluding redundancies or outdated features from the original.
2. The next stage of the DORC valuation process is to depreciate the ORC value of assets.
3. In the context of DORC valuation, depreciation serves as an important adjustment mechanism to reflect the asset's current economic value rather than its hypothetical new-build cost. Depreciation is applied to the ORC to account for the asset's age, condition, and remaining useful life, effectively deducting the portion of value that has been consumed through wear and tear.
4. Arc's Costing Principles provide some guidance on determining the economic life of an asset for the railway owner and the consideration of both the current physical condition of the asset and the forecast rate at which the asset will be consumed. The railway owner is then to compare the economic life of an asset to the standard design life and reduce the ORC for that asset proportionally.²
5. The size of depreciation is influenced by factors including:
 - the value of the asset's ORC
 - the asset's design life
 - current physical condition of the asset
 - the forecast rate at which the asset will be consumed.
6. To support the estimation of depreciation Arc is required to provide the ERA with material including:³
 - asset commissioning dates
 - asset condition information
 - information on variations of performance from given design life, including explanations, and renewal work which may have extended the asset life.
7. Once a depreciation adjustment to the ORC is applied, the DORC valuation represents the value of assets for Arc's initial regulatory asset base.
8. The initial regulatory asset base and remaining economic life of assets then allow a forward depreciation schedule to be calculated. This forward depreciation schedule details the annual depreciation amounts to the regulatory asset base that occur each year, which helps inform how Arc's initial regulatory asset base reduces over time.

² Arc infrastructure, *Costing Principles*, 11 July 2025, pp. 12-13.

³ Arc infrastructure, *Costing Principles*, 11 July 2025, p. 13.

9. The ERA is required to make a determination on the depreciation schedule. This ERA's determination is discussed in Attachment 8 Depreciation Schedule.

Arc Infrastructure Proposal

10. Arc's proposal included depreciation of \$14.8 billion. This accumulated depreciation amounted to approximately 49 per cent of Arc's estimated optimised replacement cost of \$30.1 billion.⁴
11. In calculating its proposed depreciation Arc estimated depreciation for each asset class across all its route sections. Arc's detailed depreciation calculations for assets are provided in its DORC model spreadsheet.
12. Arc has excluded from its depreciation calculations:
 - Earthworks before 2000 as they are not included in the valuation.
 - Non-operational routes as they are assumed to be fully depreciated and optimised out of the ORC.
 - Capital contributions, though Arc assumes that this value is zero as it stated that none of the assets in Arc's DORC are contributed assets.
13. To help allocate depreciation over time an asset's standard design life is the estimated life of the asset from its commissioning date to end of life, if only routine maintenance (not life extension expenditure) is undertaken. Arc has used the standard design lives detailed in the Costing Principles, provided in Table 6.1. Arc advises that where specific asset types are not listed in the Costing Principles, national or international design standards or codes are used.

⁴ GHD Advisory, *Applicable Railway Infrastructure DORC Final Report Arc Infrastructure Pty Ltd*, 6 June 2025, p. 161.

Table 6.1: Asset class standard design life

Asset Class	Asset Group	Effective Life (years)
Earthworks	Formation	100
	Cuttings	100
	Embarkments	100
Tunnels and Bridges	Bridges	100
	Tunnels	100
Under Track Structures	Culverts	50
Associated Track Structures	Level Crossing Surfaces	20
	Access Roads	10
	Fencing	15
	Roads and Shunt Pathways	10
	Track Signage	10
Sleepers	Concrete	50
	Steel	40
	Timber	15
	Fastenings	25
Ballast	Metal	50
	Gravel	50
Rail	Curve < 400m	10
	Curve 400-800m	15
	Curve > 800m & Tangent	70
Turnouts	Concrete Bearers	40
	Timber Bearers	15
Train Control Systems	Train Control	15
Signalling Systems	Signals	20
	Detectors	20
	Interlockings	20
	Flashlights	20
	Boom gates	20
Communications Systems	Communications	15
Financing	Finance Costs for Construction	50
Stations and Platforms	Stations	50
	Platforms	50
	Terminals	50
Buildings and workshops	Buildings	50
	Workshops	50
Plant, machinery and equipment	Tampers	15
	Light Vehicles (e.g. road rail vehicles)	8
	Rail vehicle moving and placing assets	10
	Grinders	20

Source: Arc infrastructure, *Costing Principles*, 11 July 2025, pp. 26-27.

14. Arc estimates the remaining life assumptions by asset class and for routes, noting that the economic life is the duration where assets are expected to generate revenue efficiently and reliably for the service, assuming appropriate and industry good practice maintenance takes place. In estimating the remaining life of assets Arc uses both the assets' time in service and asset condition information.
15. The remaining life of the asset is then compared to the standard design life and the optimised replacement cost for that asset reduced proportionally.
16. Arc detailed that the Costing Principles require that proportional (straight line) depreciation is applied to represent the likely rate of consumption of the asset. As a result, Arc applied a straight-line depreciation approach that allocates depreciation equally over an asset's economic life.⁵
17. GHD advised that it has seen no evidence to suggest that there will be a material change in demand requirements (maximum axle loads, maximum train speeds, and maximum train length) that could indicate a deviation from the linear approach to depreciation prescribed in the Costing Principles.⁶
18. Arc does not have complete asset information across all its network and therefore Arc applied an assessment hierarchy when determining the physical condition of assets and thereby the asset's remaining life. This general approach applies across asset classes when assessing the physical condition of the asset to determine the expected duration until an asset is replaced or until the next life-extending maintenance activity is expected to be required. This hierarchy tries to address situations where asset information is not available. This is detailed in Table 6.2.

Table 6.2: Arc's Remaining Life Assessment Hierarchy

Step	Basis of Remaining Life Assessment
If condition data exists:	Remaining life based on condition assessments derived from condition data.
If condition data does not exist, but commissioning date is known:	<p>The time from commissioning was used, adjusted to reflect any deviation from industry normal deterioration rates evident from those assets where condition data is available.</p> <p>For assets in service, a minimum of 10 per cent of useful life was applied to recognise the service provided by assets that are at the end of their lives.</p> <p>For most assets not in service, zero per cent of useful life was applied on the basis that these assets are not currently able to deliver services because of their condition.</p>
If neither condition nor commissioning date is known:	<p>For these assets there is no evidence to suggest a level of maintenance any different to the remainder of the route section. A route section weighted average depreciation rate will be applied to these assets, based on operating sections where condition data is known.</p> <p>The depreciation proportion is weighted by asset value. This will be calculated as follows.</p>

⁵ GHD Advisory, *Applicable Railway Infrastructure DORC Final Report – Arc Infrastructure Pty Ltd*, 06 June 2025, p. 123.

⁶ GHD Advisory, *Applicable Railway Infrastructure DORC Final Report – Arc Infrastructure Pty Ltd*, 06 June 2025, p. 124.

Step	Basis of Remaining Life Assessment
	<p data-bbox="528 266 1385 338">Weighted Average Remaining Life_R = $\frac{\sum_{i=1}^n (\text{ORC}_i \times \text{Remaining Life}_i)}{\sum_{i=1}^n \text{ORC}_i}$</p> <p data-bbox="528 347 612 376">Where:</p> <p data-bbox="620 387 839 416">R = Route Section</p> <p data-bbox="620 425 1051 454">i = Asset ID within Route Section R</p> <p data-bbox="620 463 1345 492">n = the number of discrete asset IDs within Route Section R.</p>

Source: GHD Advisory, *Applicable Railway Infrastructure DORC Final Report – Arc Infrastructure Pty Ltd*, 06 June 2025, p. 123.

19. For assets still in service, Arc proposed a minimum of 10 per cent life as a reasonable minimum on the basis that for a typical major infrastructure asset with a 50 year design life, this represents five years. Arc considered this a reasonable duration for the asset to be replaced. Arc detailed that the 10 per cent minimum remaining life follows regulatory precedent, including for the ARTC network, the Port of Newcastle and Ergon.⁷
20. Arc considered that the ability of some asset types to deliver the level of service does not deteriorate over time, provided appropriate routine maintenance is undertaken. This included asset classes associated with land (clearing and grubbing, cutting and embankments, and formation). In these cases, Arc applied no depreciation and the remaining economic life of the asset is equal to the standard design life. Arc considered that there is no material degradation in service level over time and these assets retain their full ORC value.⁸
21. Arc incorporated funding costing during construction into its ORC asset value. This results in capitalised funding costs being depreciated in line with the specific asset class's depreciation.
22. Arc proposed a total depreciation of \$14.8 billion. Proposed depreciation by asset class is provided in Table 6.3.
23. Two asset categories dominate Arc's depreciation estimate with 55 per cent of total depreciation coming from track and 34 per cent coming from signalling and control systems.

⁷ GHD Advisory, *Applicable Railway Infrastructure DORC Final Report – Arc Infrastructure Pty Ltd*, 06 June 2025, p. 123.

⁸ GHD Advisory, *Applicable Railway Infrastructure DORC Final Report – Arc Infrastructure Pty Ltd*, 06 June 2025, p. 124.

Table 6.3: Arc proposed depreciation by asset class

Asset category	ORC (\$ million)	Depreciation (\$ million)	Depreciation rate (%)
Right of Way	3,951.4	538.8	13.6
Civil Structures	1,461.5	804.1	55.0
Associated Track Structures	61.9	27.4	44.3
Track	16,640.4	8,078.2	48.5
Signalling and Control Systems	7,450.1	5,014.7	67.3
Buildings	252.0	169.1	67.1
Miscellaneous	236.6	128.4	54.3
Total	30,053.8	14,760.8	49.1

Source: GHD Advisory, *Applicable Railway Infrastructure DORC Final Report – Arc Infrastructure Pty Ltd*, 06 June 2025, p. 159.

Comments in submissions

AEMC

25. AMEC submitted that depreciation should be applied in a manner that heavily depreciates (or even excludes) assets near or beyond their economic life. AMEC viewed that assets which have outlived their standard design life should be valued at zero because they have no remaining service life. AMEC's concern is that the DORC could include assets that a prudent operator would have fully written off in normal operations.⁹
26. While the Costing Principles indicate that each asset's life be based on factors like age, usage and condition, AMEC raised concern that the process employed by Arc in its proposal for assessing physical condition was not well defined.¹⁰

Aurizon

27. Aurizon acknowledged that the Costing Principles specify a clear methodology for assessing accumulated depreciation based, where possible, on a condition-based assessment of the remaining life of assets.¹¹
28. Aurizon expressed concern about the extent to which Arc apparently had no available asset information, and that Arc has made no effort to assess the condition of its assets.¹²
29. Aurizon submitted that, in the absence of condition data, it would be inappropriate for Arc to adjust the remaining life assessed from the commission date in order to reflect any deviation from industry normal depreciation rates evident from assets where condition data is available.¹³
30. Aurizon submitted that standard asset design lives are based on an expectation that those assets will be adequately maintained. Therefore, Arc is incorrect to assume that the level of maintenance is a good determinant of an asset's remaining life. It notes that only rail assets have condition data available, and there is no reason to believe that the condition of rail assets is a good indicator of the remaining useful life of assets that have different design lives and different maintenance and renewal profiles.¹⁴

⁹ Association of Mining and Exploration Companies, *Submission on Depreciated Optimised Replacement Cost (DORC) valuation of Arc Infrastructure's railway assets*, July 2025, p. 3.

¹⁰ Association of Mining and Exploration Companies, *Submission on Depreciated Optimised Replacement Cost (DORC) valuation of Arc Infrastructure's railway assets*, July 2025, p. 5.

¹¹ Aurizon, *Arc Infrastructure Proposed Depreciated Optimised Replacement Cost Submission to ERA*, 11 August 2025, p. 33.

¹² Aurizon, *Arc Infrastructure Proposed Depreciated Optimised Replacement Cost Submission to ERA*, 11 August 2025, p. 33.

¹³ Aurizon, *Arc Infrastructure Proposed Depreciated Optimised Replacement Cost Submission to ERA*, 11 August 2025, p. 34.

¹⁴ Aurizon, *Arc Infrastructure Proposed Depreciated Optimised Replacement Cost Submission to ERA*, 11 August 2025, pp. 34-35.

31. Aurizon submitted that the limited data on the actual condition and age of Arc's assets means that Arc has adopted assumed ages for a substantial proportion of the asset base. The assumed ages for these assets are inconsistent with available data on Arc's past capital expenditure. For example, Arc assumed all formation assets are in an as new condition with no attempt to assess their actual condition. Depreciating formation assets from their estimated construction date over their standard design life would reduce the DORC by \$1.9 billion (in isolation).¹⁵
32. Aurizon submitted that Arc has taken a selective approach to adopting the standard design lives specified in the Costing Principles. Aurizon viewed the most extreme example is the assumed standard design life of 878 years for ballast, to which the Costing Principles assign a life of 50 years. This much longer life results in a much lower depreciation outcome at the valuation date.¹⁶
33. Aurizon notes that GHD has expressed the life of existing assets as a per cent of their standard useful life remaining and has then applied this same per cent to the ORC of the Modern Equivalent Asset (MEA) in order to calculate the depreciated value of the asset. Aurizon submitted that this approach understates depreciation where the standard design life of the existing asset is shorter than the standard design life of the MEA. For example, timber sleepers to be replaced in 7.5 years have 50 per cent of life expired (15 year design lives). An MEA concrete sleeper with a design life of 50 years would need to be 85 per cent depreciated to achieve the same asset renewal date. Aurizon submitted that to address this, if there are differences between the standard useful life of existing assets and the MEA, the percentage life remaining should be converted to a remaining life in years, with this then being used to calculate the applicable percentage life remaining of the MEA.¹⁷
34. Aurizon agreed that, where assets remain in service beyond their standard design life, it is reasonable to apply a minimum 10 per cent of standard design life for the remaining life of those assets.¹⁸
35. Aurizon also provided detailed commentary on the depreciation of each of the asset classes.¹⁹
 - Earthworks - Aurizon did not agree that earthworks and formation assets should be valued for the DORC as if they are non-depreciating (perpetual) assets. In regulatory DORC valuations of railway assets, earthworks are typically assigned a finite life, with accumulated depreciation recognised in the valuation. Aurizon considered that this avoids double counting the recovery of assets.

¹⁵ Aurizon, *Arc Infrastructure Proposed Depreciated Optimised Replacement Cost Submission to ERA*, 11 August 2025, p. 5.

¹⁶ Aurizon, *Arc Infrastructure Proposed Depreciated Optimised Replacement Cost Submission to ERA*, 11 August 2025, pp. 6-7.

¹⁷ Aurizon, *Arc Infrastructure Proposed Depreciated Optimised Replacement Cost Submission to ERA*, 11 August 2025, pp. 8, 35.

¹⁸ Aurizon, *Arc Infrastructure Proposed Depreciated Optimised Replacement Cost Submission to ERA*, 11 August 2025, p. 34.

¹⁹ Aurizon, *Arc Infrastructure Proposed Depreciated Optimised Replacement Cost Submission to ERA*, 11 August 2025, pp. 35-42.

- Access Roads - Aurizon considered that an assumption on access road age needs to be substantiated based on information that is directly relevant to those access roads. This should at a minimum include a review of the actual expenditure on access road renewals during Arc's 15 year tenure as railway owner. Unless Arc can demonstrate that access road capital expenditure occurred on a route, it should be assumed that the access road has not been renewed over this period and for access roads that actually exist 10 per cent of the remaining useful life assumption applied.
- Civil Structures - Aurizon was surprised that so little information was available on civil structures. Aurizon did not consider it reasonable to assume that civil structures were constructed or replaced at the same time as the known installations, but with no records being maintained. Aurizon proposed that a more realistic assumption to be that, where the date of installation is not known, the asset was constructed at the time that the route was originally installed or subject to a major upgraded, with these dates estimated in the same way as for formation. To the extent that these assets exceed their standard design life, then the 10 per cent remaining life assumption should be adopted.
- Rail - Aurizon requested that the ERA should closely examine the calculation of rail depreciation. Aurizon noted that it may have identified an error in Table 6-14 that shows 59 per cent average weighted remaining life across operational routes, which appears inconsistent with the dates provided in Table 6-13 which shows the vast majority of rail on operational routes has a remaining life of 37.5 per cent.
- Sleepers - Aurizon did not consider it reasonable to assume the same remaining life for sleepers with no information on installation year as for those sleepers where the installation year is known. Instead, Aurizon submitted that it is more likely to be the case that where Arc has no information on actual sleeper replacements none will have occurred since those detailed records commenced. Aurizon also noted that it is critical that the remaining useful life of the MEA be properly aligned with the remaining useful life for the existing sleeper assets, which will result in much greater levels of depreciation.
- Ballast - For ballast Aurizon noted the GHD 878 years effective life bears no resemblance to the endorsed standard design life of 50 years in the Costing Principles. To the extent that this would result in ballast exceeding its standard design life, then the 10 per cent remaining life assumption should be adopted. Aurizon submitted that as an alternate to depreciation based on estimated ballast installation date, Arc could methodically assess the actual condition of its ballast assets for the purpose of assessing condition-based depreciation.
- Turnout - Aurizon did not consider it reasonable to assume that, where there is no information on turnout installation date (representing 59 per cent of turnouts), installation dates should be assumed to be the same on average as where there is information on installation date.
- Signalling and communication - Aurizon suggested that the ERA needs to closely examine whether the standard design lives applied by GHD for signalling and communications assets are consistent with the lives detailed in the Costing Principles.

CBH

36. CBH detailed that Arc's depreciation assumptions was one of its key areas of concern contributing to what it viewed as an over-inflated DORC value. CBH submitted that the selective application of depreciation assumptions across different asset classes has resulted in an understated accumulated depreciation. For example, Arc have calculated depreciation for ballast over an 878 year life from commissioning dates, instead of the 50 year life defined in the Costing Principles. As a result, depreciation on some lines where ballast is over 100 years old, such as within the Great Southern Rail Network Group, is only 15 per cent.²⁰
37. CBH contended that it is not reasonable to claim that long lived or perpetual assets should not be attributed any accumulated depreciation. While they may continue to function physically, CBH viewed that it is entirely implausible that i) none of the capital that was originally invested in these assets has been recovered, and ii) it is now appropriate to commence recovery of that capital via a depreciating regulatory asset base. CBH provided examples of other ARTC DORC valuations that noted earthworks are assumed to be a perpetual asset but are depreciated relative to a nominal life of 50 years, with earthworks over 50 years old depreciated to 50 per cent of their replacement value. CBH submitted that no reasonable investor would expect to recover returns on assets more than 100 years after the original investment.²¹
38. CBH submitted that as large portions of the freight rail network are 100+ years old and have exceeded their technical design lives, depreciation of such assets should reflect the fact that a significant proportion, if not all the capital costs, associated with these assets has been recovered over their 100+ years in service. This would avoid over recovery at the expense of users. CBH noted that ERA rejected perpetual standard design lives in the approved Costing Principles.²²
39. CBH submitted that Arc's general approach to depreciation should:²³
- Ensure accumulated depreciation appropriately reflects the fact that, for long-lived assets, a proportion of invested capital will have been recovered already.
 - Ensure forecast depreciation is consistent with the standard design lives articulated in the ERA approved Costing Principles.
 - Ensure that economic lives do not exceed the standard design lives.

²⁰ CBH Group, *CBH submission on Arc Infrastructure's statement of the depreciated optimised replacement cost and statement of the depreciation schedule published on 16 June 2025*, 11 August 2025, p. 7.

²¹ CBH Group, *CBH submission on Arc Infrastructure's statement of the depreciated optimised replacement cost and statement of the depreciation schedule published on 16 June 2025*, 11 August 2025, p. 44.

²² CBH Group, *CBH submission on Arc Infrastructure's statement of the depreciated optimised replacement cost and statement of the depreciation schedule published on 16 June 2025*, 11 August 2025, p. 45.

²³ CBH Group, *CBH submission on Arc Infrastructure's statement of the depreciated optimised replacement cost and statement of the depreciation schedule published on 16 June 2025*, 11 August 2025, p. 45.

40. CBH suggested two changes in wording in Arc's remaining life assessment hierarchy Table 6-1 to better articulate Arc's approach.
- Changing "Remaining life based on condition assessments derived from condition data" to "Remaining life based on condition assessments derived from condition data, unless commissioning dates indicate the asset is providing service beyond its design life, in which case a 10% remaining life will be applied."
 - For *all* assets not in service, zero per cent useful life should be applied on the basis that these assets are not currently able to deliver a service because of their condition. CBH submitted that all assets not in service should be fully depreciated if they were not already removed during the optimisation step of developing the DORC.
41. Arc stated that no foreseeable changes to asset demand are expected and as such, the forecast depreciation of assets and their associated value is expected to be linear. CBH submitted that it is comfortable with the adoption of a linear depreciation model.²⁴
42. CBH also provided detailed commentary on the depreciation of each of the asset classes.²⁵
- Right of Way Assets – CBH submitted that depreciation for right of way assets should be calculated in a similar manner to other asset types, using linear depreciation over the standard design life defined in the Costing Principles. Where commissioning dates are not known, the commissioning dates for ballast should be adopted as it is unlikely that significant formation works occur after the application of ballast. Any right of way assets providing service beyond their design lives should be depreciated to a 10 per cent remaining life.
 - Civil Structures – CBH submitted that, subject to removing all non-operational lines in the optimisation of the asset base, Arc's approach to calculating depreciation for bridges, tunnels and culverts was reasonable. CBH recommended that Arc should provide the ERA with asset commissioning data for bridges, tunnels and culverts.
 - Rail –
 - CBH noted that the majority of rail assets are depreciated by Arc using asset data to estimate remaining life. Unlike other asset types, indicative commissioning dates of rail are not considered in the calculation of depreciation.
 - CBH contended that the approach used by Arc would likely result in situations where the economic life of rail assets exceeds the 70-year standard design life prescribed by the approved Costing Principles. CBH considered that this is inconsistent with the precedent set in *TPI vs ERA* and may result in over recovery at the expense of users.

²⁴ CBH Group, *CBH submission on Arc Infrastructure's statement of the depreciated optimised replacement cost and statement of the depreciation schedule published on 16 June 2025*, 11 August 2025, p. 45.

²⁵ CBH Group, *CBH submission on Arc Infrastructure's statement of the depreciated optimised replacement cost and statement of the depreciation schedule published on 16 June 2025*, 11 August 2025, pp. 46-52.

- CBH submitted that depreciation of assets needs to reflect the fact that a significant proportion of the capital cost associated with rail assets has already been recovered. To address this issue CBH proposed an addition to Arc's method to read "[w]here commissioning data is known and the asset is in use beyond the standard design life articulated in the applicable Costing Principles, a 10% remaining life should be applied to reflect the service being provided".
 - With respect to Arc's rail depreciation approach method 2, CBH considered that Arc's categorisation of remaining life skews towards higher remaining life. To address this, CBH proposed symmetrical remaining life bands.
 - With respect to Arc's rail depreciation approach method 3, in the absence of rail condition data to inform remaining life, CBH argued that Arc should base the life on the weighted remaining life of rail assets on the route section, not the weighted remaining life across all assets for the route section. CBH considered that this is likely to be more reflective of rail condition and that Arc's method would likely overstate remaining life for rail.
 - CBH also noted that accumulated depreciation assumptions for rail assets should be provided on a route segment basis to the ERA and other stakeholders.
- Sleepers – CBH contended that Arc's method of applying a weighted route segment remaining life to sleepers that do not have commissioning dates is likely to overstate remaining life, particularly for timber sleepers. This is because most of the timber sleeper population is likely to be at or beyond their useful life, while other asset types contributing to the weighted average remaining life of a route section are less likely to be as depreciated. CBH submitted that where there are no commissioning dates, a more appropriate approach would be to apply on a Code route segment average remaining life based on sleeper type or failing that, the average remaining life of wooden sleepers on a comparable line as a proxy.
 - Ballast – CBH noted that Arc has used an 878 year asset life instead of the 50 year life detailed in the Costing Principles. CBH submitted that depreciation should be calculated based on the 50 year ballast design life and assets beyond their useful design life should be assigned a remaining life of 10 per cent. This will have the effect of reducing a large portion of ballast to 10 per cent remaining life.
 - Turnouts – CBH submitted that Arc's approach of applying a weighted route segment remaining life to turnouts that do not have commissioning dates is likely to overstate remaining life, particularly for turnouts with timber sleepers. CBH submitted that where commissioning dates are not known, a more appropriate approach would be to apply the weighted code route section remaining life based on turnout type. If commissioning dates do not exist for a particular turnout type on a code route segment, the average remaining life for that turnout type on a comparable line or network group should be used and these assumptions should be provided. CBH submitted that Arc should provide a register of turnout types and all installation dates/assumptions for the ERA and other stakeholders for review and validation.
 - Signalling – CBH submitted that Arc should provide commissioning data/assumptions for signalling and control system assets to the ERA and other stakeholders for review and validation.

- Pedestrian Crossings – CBH submitted that Arc should provide the depreciation assumptions applied to pedestrian crossings to the ERA and other stakeholders.
- Walkways - CBH submitted that Arc's accumulated depreciation for walkways is 30 per cent and seems unusually low compared with access roads, where it is approximately 51 per cent. Relevant details at a route section level should be provided to the ERA and other stakeholders.

Karara Mining Limited

43. KML submitted that Arc has failed to supply supporting materials with its depreciation schedule, including data required by the Code to be provided. KML submitted that Arc should provide, for each route section and asset category, information including:²⁶
 - Asset commissioning dates
 - Asset condition information
 - Explanations for variations in actual asset performance compared to design life
 - Maintenance records
 - Current condition of assets.
44. KML considered that this lack of information results in the DORC report containing multiple deficiencies in its depreciation assumptions, particularly unrealistic economic life estimation models and the application of network-wide assumptions without due consideration to their applicability.²⁷
45. KML submitted that there are significant discrepancies and contradictions in the remaining economic life of multiple assets. KML noted that in the supplementary materials, Arc merely adjusted the remaining life percentages to align with DORC values without providing key data such as commissioning dates or current condition of assets. Arc's DORC Report calculated remaining economic life by multiplying the depreciation percentage in the report by the standard life, with the remaining economic life calculated as the number of years from the current date until the book value of each asset is reduced to zero.²⁸
46. KML also provided a list of inconsistencies associated with the standard design life and the remaining economic life of assets modelled across three route sections (Mullewa to Tilley Junction, Narngulu East to Mullewa, and Narngulu to Narngulu East).²⁹
47. KML submitted that the signalling and control system asset valuation fails to account for actual conditions of assets on specific route sections. For example, Arc's statement applies a uniform 9.6 years remaining life across the entire network amounting to 48 per cent of the standard life, whereas Narngulu to Narngulu East route has a remaining life of only 2 years which is 10 per cent of the standard life.³⁰

²⁶ Karara Mining Limited, *KML's Submission Regarding Arc's DORC Report*, 11 August 2025, pp. 12, 29.

²⁷ Karara Mining Limited, *KML's Submission Regarding Arc's DORC Report*, 11 August 2025, pp. 29-33.

²⁸ Karara Mining Limited, *KML's Submission Regarding Arc's DORC Report*, 11 August 2025, p. 34.

²⁹ Karara Mining Limited, *KML's Submission Regarding Arc's DORC Report*, 11 August 2025, pp. 35-39.

³⁰ Karara Mining Limited, *KML's Submission Regarding Arc's DORC Report*, 11 August 2025, p. 20.

Pacific National

48. Pacific National noted the Arc approach of assuming a remaining life of 10 per cent for assets still in service and beyond their standard asset lives. Pacific National recommended that the ERA consider an alternative approach of fully depreciating these assets.³¹
49. Pacific National detailed that new railway assets constructed to modern standards might be expected to have a greater service capacity than the existing railway assets with respect to matters such as train speeds, axle loads and efficiency of train control. Pacific National considered that where a significant difference exists, the lower service capability of the existing assets should be reflected in the depreciation adjustment from the ORC to the DORC. If any such differences in service capability are likely, then Pacific National submitted that the ERA should consider whether corresponding depreciation adjustments should be made to reflect the inherently lower value of the existing assets.³²

³¹ Pacific National, *Submission Arc Infrastructure's statement of the depreciated optimised replacement cost and statement of the depreciation schedule*, 11 August 2025, p. 1.

³² Pacific National, *Submission Arc Infrastructure's statement of the depreciated optimised replacement cost and statement of the depreciation schedule*, 11 August 2025, p. 7.

RP Infrastructure advice

50. RPI identified differences from Arc for its estimate of depreciation. RPI's estimated depreciation was \$11.8 billion. This depreciation amounted to approximately 58 per cent of RPI's estimated ORC of \$20.3 billion.³³
51. This compares to Arc's proposed depreciation of \$14.8 billion or approximately 49 per cent of Arc's estimated ORC.³⁴
52. RPI's depreciation estimate is the product of its changes to:
 - Total ORC – The RPI estimated total ORC reduced from \$30.1 billion to \$20.3 billion.
 - Depreciation methodology - RPI made amendments to Arc's depreciation methodology that changed the remaining life of different assets through the rail network. These had the effect of reducing depreciation.
 - Accelerated depreciation - RPI included \$3.3 billion of accelerated depreciation for routes experiencing significant declines.
53. In assessing depreciation RPI estimated depreciation for each asset class across all route sections.
54. RPI excluded from its depreciation calculations:
 - Earthworks before 2000 as they are not included in the valuation.
 - Non-operational routes as they are assumed to be fully depreciated and optimised out of the ORC.
 - Capital contributions, though unlike Arc who assumed a value of zero, RPI recognised \$1.4 billion of contributed capital.
55. RPI used the standard design lives for asset classes detailed in the Costing Principles, as provided in Table 6.1.
56. RPI estimated the remaining life assumptions by asset class and for routes. In estimating the remaining life of assets RPI used both the assets' time in service and asset condition information.
57. The remaining life of the asset was then compared to the standard design life and the optimised replacement cost for that asset reduced proportionally.
58. In accordance with the Costing Principles RPI applied a straight-line depreciation approach that allocates depreciation equally over an asset's economic life.

³³ RP Infrastructure, *Initial Report (Review of Arc Infrastructure's Sections 47J and 47K submissions) FINAL*, 6 January 2026, p. ii.

³⁴ GHD Advisory, *Applicable Railway Infrastructure DORC Final Report Arc Infrastructure Pty Ltd*, 6 June 2025, p. 161.

59. RPI determined depreciation for the network by applying the composite depreciation rates to the total ORC. To determine the relevant composite depreciation rate for each route, RPI undertook the following steps:³⁵
- Estimated the depreciation rate for each asset group based on available age using Arc's database for each of the assets and their age within each asset group. This was done across the network.
 - Applied these depreciation rates for each asset group to the Construction Replacement Cost (CRC) for that asset group at a route section level. The weighted average depreciation is applied to the CRC value for that asset group.
 - Continued this for each asset group and then summed up the total depreciation at a route section level to determine the composite depreciation rate for that route section (that is depreciation/CRC).
60. RPI estimated the depreciation by asset class across the network, assigning a depreciation rate equal to the average of known assets for that class. Where there was insufficient data available, RPI adopted Arc's assessment of depreciation.³⁶ RPI applied a similar tiered approach to Arc in Table 6.2 to estimate the remaining asset life.
61. RPI accepted that Arc's assumption of a minimum remaining life of 10 per cent for any in-service assets that are at or beyond the end of their useful life is consistent with regulatory precedent.³⁷
62. RPI incorporated funding costs during construction proportionally to each of the route sections into the ORC and then depreciated this by route and asset class. RPI incorrectly stated that Arc has not depreciated its capitalised funding costs in its proposal.³⁸
63. RPI's depreciation rates by asset type relative to Arc is provided in Table 6.4.

³⁵ RP Infrastructure, *Initial Report (Review of Arc Infrastructure's Sections 47J and 47K submissions) FINAL*, 6 January 2026, p. 52.

³⁶ RP Infrastructure, *Initial Report (Review of Arc Infrastructure's Sections 47J and 47K submissions) FINAL*, 6 January 2026, p. 52.

³⁷ RP Infrastructure, *Initial Report (Review of Arc Infrastructure's Sections 47J and 47K submissions) FINAL*, 6 January 2026, p. 50.

³⁸ RP Infrastructure, *Initial Report (Review of Arc Infrastructure's Sections 47J and 47K submissions) FINAL*, 6 January 2026, p. 51.

Table 6.4: Depreciation rates by Asset Type – Arc vs RPI

Asset type	Depreciation Rate Arc (%)	Depreciation Rate RPI (%)	Difference (%)
Formation	0	0	0
Access Roads	51	0	(51)
Earth Works	0	0	0
Clearing and Grubbing	0	0	0
Bridges	65	54	(11)
Tunnels	58	58	0
Culverts	37	24	(13)
Level Crossings	44	44	0
Sleepers	55	39	(16)
Rail	50	50	0
Ballast	9	9	0
Turnouts	52	52	0
Signals	67	67	0
Control Centres	25	25	0
Maintenance Facilities	69	69	0
Depots	75	75	0
Platforms	0	0	0
Plant & Equipment	73	73	0
Walkways	38	38	0
Signals	63	63	0

Source: RP Infrastructure, *Initial Report (Review of Arc Infrastructure's Sections 47J and 47K submissions) FINAL*, 6 January 2026, p. 51.

64. RPI accepted that some asset types deliver a level of service that does not deteriorate over time. RPI accepted Arc's approach for land (clearing and grubbing, cutting and embankments, and formation) that does not apply depreciation and sets the remaining economic life of the asset equal to the standard design life.³⁹

³⁹ RP Infrastructure, *Initial Report (Review of Arc Infrastructure's Sections 47J and 47K submissions) FINAL*, 6 January 2026, p. 53.

65. RPI advised that for some asset types that given limited asset information and these asset types represented a small percentage of the total network ORC it had accepted Arc's depreciation rates.⁴⁰
66. RPI's other methodological differences to Arc include:
- RPI applied the remaining lives on an asset-type basis for the network as a whole and across each route section. RPI advised that this results in 42 per cent of the network begin depreciated compared with 49 per cent of the network being depreciated using Arc's approach to depreciation.⁴¹
 - Where the construction date is not known for assets, RPI adopted a whole of network average, in contrast to Arc's calculation of remaining life on either a network group or route section basis, depending on the asset class.⁴²
 - RPI noted that while Arc stated that it had fully depreciated non-operational routes, the modelling provided by Arc includes these routes in the depreciation tables. RPI has excluded these routes in its depreciation estimates as all non-operational routes are optimised out to estimate the ORC.⁴³
67. RPI's asset specific changes from Arc:
- RPI assumed that maintenance works on access roads will cover any asset life extensions and thus are covered in operational works. RPI therefore assumed there is no depreciation for access roads and the full ORC value is retained. This has the impact of reducing depreciation for access roads from Arc's estimate.⁴⁴
 - For bridges and culverts, based on available data RPI used a weighted average life for the assets and applied it for the entire network. Arc used an average for the entire route network if there was insufficient data. This has the impact of reducing depreciation for bridges and culverts from Arc's estimate.⁴⁵
 - RPI advised that the depreciation for sleepers should be calculated on the basis of the weighted average installation year of all sleeper types, but assuming the design life for all sleepers are based on the 50 year concrete sleeper. This has the impact of reducing depreciation for sleepers from Arc's estimate.⁴⁶

⁴⁰ RP Infrastructure, *Initial Report (Review of Arc Infrastructure's Sections 47J and 47K submissions) FINAL*, 6 January 2026, p. 53.

⁴¹ RP Infrastructure, *Initial Report (Review of Arc Infrastructure's Sections 47J and 47K submissions) FINAL*, 6 January 2026, p. iv.

⁴² RP Infrastructure, *Initial Report (Review of Arc Infrastructure's Sections 47J and 47K submissions) FINAL*, 6 January 2026, p. 53.

⁴³ RP Infrastructure, *Initial Report (Review of Arc Infrastructure's Sections 47J and 47K submissions) FINAL*, 6 January 2026, p. 52.

⁴⁴ RP Infrastructure, *Initial Report (Review of Arc Infrastructure's Sections 47J and 47K submissions) FINAL*, 6 January 2026, p. 53.

⁴⁵ RP Infrastructure, *Initial Report (Review of Arc Infrastructure's Sections 47J and 47K submissions) FINAL*, 6 January 2026, p. 53.

⁴⁶ RP Infrastructure, *Initial Report (Review of Arc Infrastructure's Sections 47J and 47K submissions) FINAL*, 6 January 2026, p. 53.

- RPI accepted Arc's ballast depreciation approach and its implied 878 year economic life.⁴⁷
68. RPI estimated the depreciation (excluding any accelerated depreciation) for the rail network at \$8.5 billion (42 per cent of RPI's ORC value). This compares to Arc's estimate of \$14.8 billion (49 per cent of Arc's ORC value).
69. While Arc proposed that there be no accelerated depreciation, RPI applied an additional accelerated depreciation adjustment for routes where it considers there were significant declines in demand.
70. RPI undertook an analysis of demand trends using gross tonne kilometre figures by route sections from 2015 – 2024. RPI noted that many routes have experienced significant declines consistently during the last five years, with others displaying declines with more variability. Some routes were quite variable. RPI found that there was sufficient reason to accelerate depreciation on those routes experiencing the greatest declines.⁴⁸
71. RPI recommended classifying assets in bands according to this potential decline:⁴⁹
- Band 3 with clear indication of stranding – 2.0 times accelerated depreciation. RPI considered these were routes with declines in 1 year, 3 year and 5 year periods and where the 5 year decline is 30 per cent or more. RPI allocated 9 routes to Band 3.
 - Band 2 with some indication of stranding – 1.5 times accelerated depreciation. RPI considered these were routes that experienced lower declines in one or two of these time frames. RPI allocated 29 routes to Band 2.
 - Band 1, with no evidence of stranding – no acceleration of depreciation.
72. RPI recognised possible future upward scenarios driven by the current policy environment aimed at addressing the trend towards road freight to consider safety, road cost and other externalities.⁵⁰
73. RPI detailed that further analysis could be undertaken for the final report to:⁵¹
- Quantify the scale and timing of these impacts across corridors.
 - Undertake stakeholder consultation with access seekers, regional users, government agencies to validate assumptions and assess broader economic effects.

⁴⁷ RP Infrastructure, *Initial Report (Review of Arc Infrastructure's Sections 47J and 47K submissions) FINAL*, 6 January 2026, p. 53.

⁴⁸ RP Infrastructure, *Initial Report (Review of Arc Infrastructure's Sections 47J and 47K submissions) FINAL*, 6 January 2026, p. iv.

⁴⁹ RP Infrastructure, *Initial Report (Review of Arc Infrastructure's Sections 47J and 47K submissions) FINAL*, 6 January 2026, p. iv.

⁵⁰ RP Infrastructure, *Initial Report (Review of Arc Infrastructure's Sections 47J and 47K submissions) FINAL*, 6 January 2026, p. 56.

⁵¹ RP Infrastructure, *Initial Report (Review of Arc Infrastructure's Sections 47J and 47K submissions) FINAL*, 6 January 2026, p. 62.

- Determine the size of acceleration of depreciation for certain high-risk routes.
74. RPI noted that its suggested rates of acceleration may be refined prior to finalising the report to ensure alignment with forecast demand trends and regulatory objectives.⁵²



76. RPI considered that acceleration of depreciation mitigates the risk of asset stranding and increases the contestability of these routes, with positive implications for current and potential access users as well as the regional and broader economy.⁵⁴
77. RPI calculated the accelerated depreciation amount at \$3.3 billion.
78. RPI therefore calculated total depreciation at \$11.8 billion. The depreciation amounted to approximately 58 per cent of RPI's estimated ORC of \$20.3 billion.

⁵² RP Infrastructure, *Initial Report (Review of Arc Infrastructure's Sections 47J and 47K submissions) FINAL*, 6 January 2026, p. 62.

⁵³

⁵⁴ RP Infrastructure, *Initial Report (Review of Arc Infrastructure's Sections 47J and 47K submissions) FINAL*, 6 January 2026, p. iv.

ERA Considerations

79. The ERA estimates depreciation at \$9.1 billion. Depreciation amounts to approximately 54 per cent of the ERA's estimated ORC of \$16.9 billion.
80. This compares to Arc's proposed depreciation of \$14.8 billion, approximately 49 per cent of Arc's estimated ORC of \$30.1 billion.
81. Compared to Arc's depreciation estimate, the ERA's depreciation amount is determined by the ERA's:
 - proposed ORC value
 - removal from the ORC value of capital contributions and any remaining value of routes not in service (optimised out)
 - revised depreciation methodology
 - remaining asset life assessment for the rail network's different asset classes.
82. This section details the ERA's assessment of depreciation for the draft decision. Detailed numbers underlying this depreciation amount can be found in the ERA's DORC model.
83. The ERA seeks stakeholder comment on its depreciation approach and will consider any further feedback as part of its final determination on Arc's DORC valuation.
84. In assessing depreciation for the draft decision, the ERA has considered Arc's proposal, the RPI DORC report and stakeholder submissions.
85. The ERA notes that stakeholders have raised concern with Arc's depreciation methodology. This stakeholder feedback on depreciation included:
 - Support for the use of straight-line depreciation method over asset lives.
 - Concern with the lack of asset and condition information across the rail network affecting any assessment of remaining life. Stakeholders requested that Arc provide further asset information.
 - Concern with some assets being considered as non-depreciating perpetual assets and included in the DORC valuation at the full ORC with no depreciation.
 - Concern with Arc's selective application of the design lives and support for the use of the standard design lives detailed in the Costing Principles.
 - That assets near or beyond their design lives should be depreciated to a large extent. Views were expressed that a prudent operator would have fully written off these assets or that customers have paid for the majority of these assets through access charges. Some stakeholders viewed that economic lives should not exceed the standard design lives.
 - There was some support for where assets are remaining in service beyond their standard design life that a minimum 10 per cent of the standard design life be applied, however, other stakeholders viewed these assets should be fully depreciated.

- Specific feedback on the approach to assessing an asset's remaining life where there was little information available. This included some concern with the application of network-wide assumptions compared to recognising more specific consideration of asset and route applicability.
86. Arc's Costing Principles require that it provide all material necessary for the ERA to meet its obligations under section 47K of the Code. This material is laid out in the Costing Principles as including:
- Asset commissioning date
 - Asset condition information
 - Information on variations of performance from given design life (including explanations) and renewal work which may have extended the asset life.
87. The ERA found that some asset condition information is lacking from Arc for certain asset classes and routes. The ERA's draft decision on depreciation reflects the information that is available to the ERA. The ERA is seeking better information to inform the ERA's final determination.

Question 6.1

The ERA is seeking any information that stakeholders may be able to provide regarding depreciation in terms of the remaining economic life of assets or routes that can assist the ERA for its final determination.

Depreciation methodology considerations

88. Arc's Costing Principles outline that in order to determine the economic life of an asset, Arc will:
- firstly, consider the current physical condition of the asset
 - secondly, consider the forecast rate at which it will be consumed
 - finally, develop the economic life of the asset based on the current physical condition of the asset and the forecast rate of consumption.
89. The following provides high-level detail on the ERA's depreciation methodology across the rail network. Asset specific considerations are discussed in more detail below. More specific detail can be found in the ERA's DORC model.
90. The ERA has excluded from its depreciation calculations:
- Earthworks before 2000 as they are not included in the valuation.
 - Non-operational routes, which are optimised out of the CRC and require no depreciation (Arc had included some non-operational routes).
 - \$1.5 billion of capital contributions (Arc assumed that this value was zero), which requires no depreciation on the contributed assets.

91. The ERA has applied the Standard Design Lives detailed in the Costing Principles, provided in Table 6.1.
92. The ERA has reviewed the remaining life to ensure that it reasonably reflects that of existing assets, where remaining life is not unduly extended due to the usually longer remaining life of a modern equivalent asset.
93. For example, the rail network may have timber sleepers present (15 year life), but the modern equivalent asset would only use concrete sleepers (50 year life). If the timber sleeper had 5 years of remaining life (33 per cent), the proportional equivalent for a concrete sleeper is around 17 years. Adopting this method might unduly extend the life to that of existing assets. The 5 year remaining life needs to hold even with a modern equivalent asset.
94. The ERA estimates the remaining life assumptions by asset classes and for routes. In estimating the remaining asset life, the ERA uses both the assets' time in service and future economic use.
95. While Arc has allocated depreciation to the network group level, the ERA has allocated depreciation at the route level. The ERA considers that this better recognises the different routes and is what is required by the Code. For the purposes of the draft decision the ERA has used the limited information available to it and any further route information will help to calculate depreciation in the final determination.
96. The ERA incorporates funding costs during construction into its ORC asset value. This results in capitalised funding costs being depreciated in line with the specific asset class's depreciation. This is consistent with the approaches of Arc and RPI.
97. The ERA applies straight-line depreciation for assets that allocates depreciation equally over an asset's economic life. This is consistent with the proportional allocation detailed in the Costing Principles.
98. Arc's proposal has at times applied a 100 per cent depreciation rate to non-operational assets, while the ERA has instead not included non-operational assets in the ORC. This has necessitated adjustments to Arc's comparison depreciation rates to maintain consistency.

Remaining life assessment hierarchy

99. Recognising that Arc's asset information across all its network is incomplete, the ERA applies an assessment hierarchy when determining the physical condition of assets and thereby the asset's remaining economic life. We have applied this general approach across asset classes but recognise the specific characteristics of each asset class. This is outlined at a high level in Table 6.5. Specific asset class considerations are discussed in more detail below.

Table 6.5: ERA's High-Level Remaining Life Assessment Hierarchy

Step	Basis of Remaining Life Assessment
If condition data exists:	Remaining life based on condition assessments derived from condition data.
If condition data does not exist, but commissioning date is known:	<p>The time from commissioning was used, adjusted to reflect any deviation from industry normal deterioration rates evident from those assets where condition data is available.</p> <p>For assets in service, a minimum of 10 per cent of remaining useful life was applied to recognise the service provided by assets that are at the end of their lives.</p>
If neither condition nor commissioning date is known:	These assets are assumed to be older or less maintained than those operating sections where condition data is known. That is, remaining lives will be lower than the general weighted average of known assets. With a minimum of 10 per cent of the remaining useful life being applied.

100. The ERA has considered the situation for assets that are still in-service but are operating beyond their design life. The ERA considers that these assets are still providing economic value and therefore these assets should not be fully depreciated to zero. Retaining a minimum 10 per cent of the remaining life of these assets is reasonable, as this allows for some time for the potential replacement or extension of the assets and is in line with regulatory precedent cited by RPI. This is consistent with the approach used by Arc.

101. For assets where neither the condition nor commissioning dates are known, Arc took the approach of using the weighted average depreciation rate for the route section based on available information. However, for these assets with no information, it is likely that the installation occurred before the installation of other assets on the route. Therefore, the ERA's assumptions recognise that these assets may be older or less maintained than those operating sections where condition data is known.

Accelerated depreciation

102. RPI undertook an analysis of the trends in traffic demand for each route over a 10 year period and found sufficient evidence of recent demand reductions to propose accelerated depreciation.

103. The ERA has considered RPI's recommended accelerated depreciation for select routes which have experienced declines in demand:

- The use of accelerated depreciation allows for expected lower customer use and economic value coming from assets. For the purposes of the DORC valuation, accelerated depreciation attempts to allocate economic utilisation between the past and the future to best estimate expected lower future asset usage.

- The ERA considers that RPI did not fully consider the potential for changes in future uses of the asset that would either maintain or increase demand. RPI did recognise possible future upward scenarios driven by the current policy environment aimed at addressing the trend towards road freight to consider safety, road cost and other externalities.⁵⁵
 - The ERA considers that accelerated depreciation should only be applied to routes where customer utilisation has materially declined along with a strong expectation that future route demand is terminal.
104. For the purposes of the draft decision the ERA has only included routes in RPI's Band 3 that have experienced material reductions in demand. The ERA applies a 2.0x geometric acceleration to depreciation for these lines consistent with RPI's calculation.⁵⁶ This results in \$462 million in accelerated depreciation.
105. The ERA seeks stakeholder feedback on the use of accelerated depreciation and which routes may have material and ongoing reductions in demand. The ERA will further consider accelerated depreciation and its application to routes in its final determination.

Question 6.2

Is the proposed use of accelerated depreciation for select routes appropriate? If so, which routes should be subject to accelerated depreciation and why?

Limitations of service capability adjustment

106. Submissions have raised concern that assets constructed to modern standards might be expected to have a greater service capacity than the existing railway assets with respect to matters such as train speeds, axle loads and efficiency of train control.
107. The ERA has considered the possibility that modern equivalent assets may result in the rail network having a greater service capacity than what existing railway assets are capable of.
108. Where a route, or a part thereof, experiences operational limitations that limits the ability of rolling stock to service customer requirements, the ERA considers that this may impact the economic value provided by the network. Depending on the extent of limitations to service capabilities, some form of adjustment may be justified on an individual route basis. This could take the form of an optimisation adjustment or a depreciation adjustment.
109. The ERA seeks information from stakeholders to better understand current operational limitations on routes. This additional information will help inform the ERA of whether targeted adjustments for specific routes are needed to account for the limitations of service capabilities and how an adjustment could be calculated and applied.

⁵⁵ RP Infrastructure, *Initial Report (Review of Arc Infrastructure's Sections 47J and 47K submissions) FINAL*, 6 January 2026, p. 56.

⁵⁶ Depreciation = Straight line depreciation + Accelerated depreciation adjustment = (ORC x depreciation rate) + ((Loading Factor - 1) x depreciation rate) x (ORC - ORC x depreciation rate).

Question 6.3

Are there any routes which are subject to current operational limitations that are not currently identified in this draft decision? If so, which routes are they and what supporting evidence exists to support such identification?

Asset class considerations

110. An overview of the depreciation rates that have been applied in the draft decision is presented in Table 6.6.

Table 6.6: ERA's draft decision depreciation rates by asset type

Asset category	Arc*		ERA
	Original basis	Corrected basis	Draft Decision
Right of Way	51.4%	39.4%	39.4%
Civil Structures	55.0%	48.8%	67.3%
Track	48.5%	36.8%	55.6%
Signalling and Communications	67.2%	65.8%	64.0%
Buildings and Miscellaneous	62.0%	61.6%	62.2%
Associated Track Structures	44.2%	41.4%	41.4%
Overall	49.1%	41.7%	51.5%

Note: * For comparison purposes, Arc's depreciation rates have been corrected for the fact that non-operational assets are completely depreciated instead of being removed from the ORC. Depreciation rates for asset categories are weighted by construction replacement costs on an asset level except for Right of Way given the zero applied accumulated depreciation.

111. The ERA has considered the depreciation rates for each asset class as proposed by Arc and RPI advice. For the draft decision the ERA adopts the depreciation rates as proposed for 16 of the 21 asset categories, subject to the correction for non-operational assets and other corrections for asset specific categories.

112. The following details the ERA's considerations of select asset classes. This includes asset classes which make up the majority of ORC value, areas of divergence from Arc's specific asset approaches and particular areas of focus from submissions. More details can be found in the ERA's DORC model.

Right-of-way – Formation, earthworks, and clearing and grubbing

113. Arc has applied zero depreciation to three asset types (formation, earthworks, and clearing and grubbing). Arc submitted that some asset types can deliver a level of service that does not deteriorate over time, provided that appropriate routine (non-life extending) maintenance is undertaken. This would typically apply to land for example. This means that the economic life of these assets is equal to the Standard Design Life, which results in no depreciation. Arc considered that this was reasonable because there was no material degradation in service level over time.⁵⁷
114. As required by the Code, only costs associated with earthworks completed since 2000 should be included in the DORC valuation. Therefore, the majority of Arc's ORC value for these assets lies in formation assets. The composition of Arc's right-of-way ORC values are:⁵⁸
- Formation: \$2,755.2 million
 - Clearing and grubbing: \$116.8 million
 - Cutting and Embankments: \$31.8 million.
115. RPI accepted Arc applying zero depreciation for these assets.⁵⁹
116. The ERA notes the concerns raised in submissions that right of way assets should be calculated in a similar manner to other asset types, using linear depreciation over the standard design life in the Costing Principles.
117. The ERA notes the concern within submissions regarding these types of perpetual assets. Submissions considered these assets should have higher depreciation and be more fully depreciated consistent with Standard Design Lives from the asset's commissioning date. Submissions noted that customers have been paying for these assets over their lives and it was unreasonable for customers to have to pay again through the asset's full ORC value being incorporated into the DORC.
118. In considering the depreciation of assets, the ERA has considered the ability of some asset types to deliver a level of service that does not deteriorate over time. For assets such as land, it is possible for these assets to continue to provide economic value over extended periods such that the economic value of those types of assets does not deteriorate over time. A DORC valuation is an assessment of the remaining economic value in an asset at a point in time. Therefore, for assets that deliver a level of service that does not deteriorate, a DORC would include the total ORC asset value and no depreciation. This valuation exercise is separate from how regulatory or statutory depreciation operates, where the recovery of assets may have been accounted for in the past (allocated to customers in the past).⁶⁰

⁵⁷ GHD Advisory, *Applicable Railway Infrastructure DORC Final Report – Arc Infrastructure Pty Ltd*, 06 June 2025, pp. 124-127.

⁵⁸ GHD Advisory, *Applicable Railway Infrastructure DORC Final Report – Arc Infrastructure Pty Ltd*, 06 June 2025, p. 127.

⁵⁹ RP Infrastructure, *Initial Report (Review of Arc Infrastructure's Sections 47J and 47K submissions) FINAL*, 6 January 2026, pp. 53-4.

⁶⁰ The *Railways (Access) Code 2000* was amended to more closely align to the heavier handed framework with annual/periodic roll forward approach to account for capital expenditure, redundant assets and annual

119. Regulators commonly recognise that perpetual assets do not deteriorate over time and therefore are included in the DORC as the total ORC asset value.⁶¹
120. The ERA notes that the future economic lives of perpetual assets can be limited to the future economic use of these assets and not the technical deterioration of the asset. Where the perpetual asset has a finite future economic use, it is appropriate to account for some level of depreciation and the DORC will only include part of the total ORC asset value. For example, the situation where a rail route that only services an individual mine customer. From a technical perspective, earthworks associated with the rail route do not deteriorate over time and can last indefinitely. However, from an economic use perspective, that mine has for example a fixed 50 year life given its mineral reserves. Therefore, the rail route servicing the mine has a fixed economic life of 50 years and it is reasonable then for the economic life of earthworks be capped at 50 years.
121. A DORC valuation considers the economic value that remains in the asset. In determining the economic life of the asset, the Costing Principles require that the economic life of the asset be compared to the Standard Design Life and the ORC reduced proportionally. The ERA considers that this reflects that a DORC is predicated on the basis that the value of the existing assets considers their remaining service potential, when compared to a new alternative.
122. The ERA considers that formation, earthworks, and clearing and grubbing do not deteriorate over time with proper maintenance and that their service potential can remain consistent with the level of a new asset. These assets are not limited by the life of rail assets, as the replacement of the rail asset continues the use of the asset. The ERA has considered the broad future economic use of the rail network and does not believe there should be a general limit to the future economic life across the network as the rail network is expected to continue to service a broad customer base for many years into the future.
123. As a result, for the draft determination of the DORC, the ERA applies zero accumulated depreciation to the asset types of formation, earthworks, and clearing and grubbing. These assets maintain their ORC in the DORC valuation. This sets the initial regulatory base for these assets.
124. The ERA seeks feedback from stakeholders on the treatment of the depreciation of perpetual assets. Further stakeholder feedback will help refine the treatment of these assets across the rail network's different routes.

depreciation. The regulator must first establish an initial asset base. Then the regulator is then required to review the RAB additions and subtraction every five years.

⁶¹ This treatment aligns with guidelines from regulators like the Australian Competition and Consumer Commission. Perpetual assets considered by regulators commonly includes land and rights-of-way and easements as these assets do not degrade over time with maintenance.

Question 6.4

What is the appropriate treatment for assets identified as non-depreciable, perpetual for the purposes of the DORC statement?

Right of way – Access roads

125. Arc's proposal included depreciation for access roads of \$538.8 million, which amounted to approximately 51 per cent of Arc's estimated ORC of \$1.0 billion.⁶² On a corrected basis, the depreciation rate is around 39 per cent.
126. Arc advised that condition data was not available for these assets but as access roads are typically unsealed tracks with relatively short economic lives (about 10 years), Arc assumed that there was a reasonable correlation between the weighted average economic life of the section and that of the access roads within it. Arc argued that those sections with a relative long remaining economic life would have been accessed relatively recently and/or frequently for maintenance or replacement purposes, so access roads would have been similarly recently maintained or replaced to support such activity.⁶³
127. Submissions considered that access road age needed to be substantiated based on information that is directly applicable to those access roads. Submissions considered that Arc should demonstrate that access road maintenance expenditure has occurred, otherwise the value of assets should be reduced to the 10 per cent minimum remaining useful life.
128. For the purposes of the draft decision, the ERA accepts Arc's approach to access roads to depreciate access roads by the corrected amount of around 39 per cent. This method recognises that some access roads are likely to have deteriorated, while others continue to serve for maintenance and inspections.
129. However, the ERA holds concern with the lack of access road condition information. The ERA seeks further information on the condition of access roads, and this additional information may better inform the ERA's approach to the depreciation of access roads in the final determination.
130. In the draft decision the ERA has valued access roads with a value of zero, details provided in Attachment 2. Therefore, the draft decision includes no depreciation for access roads.

⁶² GHD Advisory, *Applicable Railway Infrastructure DORC Final Report Arc Infrastructure Pty Ltd*, 6 June 2025, p. 137.

⁶³ GHD Advisory, *Applicable Railway Infrastructure DORC Final Report Arc Infrastructure Pty Ltd*, 6 June 2025, p. 126.

Question 6.5

What information exists regarding the condition of access roads that are not currently identified in this draft decision? If there are access roads with impaired operational conditions, where are they and what supporting evidence exists to support such identification?

Track – Rail

131. Arc's proposal included depreciation for track assets of \$3.6 billion, which amounted to approximately 41 per cent of Arc's estimated rail ORC of \$8.9 billion.⁶⁴ On a corrected basis the depreciation rate is around 38 per cent.
132. With 10,833 kilometres of rail assets this is the largest ORC value of any asset type. This rail represents approximately 30 per cent of Arc's proposed total ORC.
133. Submissions raised concerns with Arc's rail depreciation approach and considered that its categorisation of remaining life skews towards a higher remaining life.
134. The ERA has reviewed Arc's rail life assessment categorisation and considers it skews remaining asset life upwards. Arc has presented the remaining life data into four groups (0 to 10, 10 to 25, 25 to 50, and 50 to 100 per cent of remaining rail life) and has assumed a remaining per cent based on the mid-point of the range (besides 0 to 10 per cent where it applies the 10 per cent minimum). This means that all rail assets in the 50 to 100 per cent category are assumed to have a 75 per cent remaining life. Given the age of the network the distribution of assets in the range of 50 to 100 per cent may lie in the lower age range. Thereby, Arc's approach would have an effect of increasing the remaining life of rail assets in the 50 to 100 per cent category.
135. The ERA has identified that there is also a material error in the GHD report for Table 6-12 that does not correctly show the distribution of rail kilometres by group.
136. In estimating rail depreciation percentage to be applied:
 - The ERA has corrected the distribution of rail kilometres by group.
 - The ERA corrected for non-operational assets.
 - The ERA has implemented a categorisation to address the skew to remaining asset life by setting the remaining life for the last group to 65 per cent instead of Arc's 75 per cent.
 - The ERA applied the 10 per cent remaining life limit to rail assets with missing information. Arc's approach had used the route average. 21 per cent of all rail kilometres has missing information.
137. For the purposes of the draft determination the ERA applies a depreciation rate of around 47 per cent for rail assets.

⁶⁴ GHD Advisory, *Applicable Railway Infrastructure DORC Final Report Arc Infrastructure Pty Ltd*, 6 June 2025, p. 143.

138. The ERA seeks further information on condition of rail assets, and this additional information may better inform the ERA's approach to the depreciation of rail assets in the final determination.

Question 6.6

What information exists regarding the condition of rail assets that are not currently identified in this draft decision?

Track – Sleepers

139. Arc's proposal included depreciation for sleepers of \$1.5 billion, which amounted to approximately 48 per cent of Arc's estimated sleeper ORC of \$3.2 billion.⁶⁵ On a corrected basis the depreciation rate is around 46 per cent.
140. The sleeper asset category includes three classes of sleepers with different standard design lives:
- 2 million concrete sleepers which represent 29 per cent of the total sleeper population and have a standard design life of 50 years
 - 2 million steel sleepers which represent 28 per cent of the total sleeper population and have a standard design life of 40 years
 - 3 million timber sleepers which represent 43 per cent of the total sleeper population and have a standard design life of 15 years.
141. Arc reported that for 54 per cent of the sleeper population the installation year was not known. Given the changes away from the use of timber sleepers, it is a reasonable assumption to consider that timber sleepers would be overrepresented in this sleeper population with lack of installation date.
142. Submissions requested that the remaining useful life of the modern equivalent asset be properly aligned with the remaining useful life for the existing sleeper assets. Submissions considered that this would result in much greater levels of depreciation than what Arc proposed.
143. Arc's approach for timber sleepers diverges from the Costing Principles and the standard design life was not used. Arc details that the timber sleepers across the routes range from 18 per cent to 96 per cent.⁶⁶ The remaining life for timber sleepers appears to reflect modern equivalent concrete sleepers.
144. ARC has not purchased timber sleepers since 2000, but had a small number of timber sleepers in stock. On the basis of the 3 million timber sleepers and with a design life of 15 years, a sustainable replacement program would appear to be in the order of an annual replacement of 200,000 timber sleepers. This is well above the number of timber sleepers in stock.

⁶⁵ GHD Advisory, *Applicable Railway Infrastructure DORC Final Report Arc Infrastructure Pty Ltd*, 6 June 2025, p. 143.

⁶⁶ GHD Advisory, *Applicable Railway Infrastructure DORC Final Report Arc Infrastructure Pty Ltd*, 6 June 2025, p. 139.

145. The ERA notes that it has not been standard practice to replace timber sleepers with timber. Therefore, with a 15-year standard design life there would be relatively few new timber sleepers in the population. This means that the remaining life for timber sleepers may be closer to zero.
146. The ERA considers that Arc's approach to the depreciation of timber sleepers over estimates the remaining economic life from timber sleepers by implying the remaining design life of a modern equivalent concrete sleeper.
147. For the purposes of the draft decision, the ERA has aligned the depreciation approach for timber sleepers with the standard design life of 15 year in the Costing Principles. This means that the remaining life for timber sleepers is reduced with more requiring a minimum 10 per cent remaining useful life (1.5 years remaining life).
148. In determining sleeper depreciation the ERA has taken the following steps:
- The distribution of operational sleepers is calculated for the entire network (5.9 million sleepers)
 - The remaining life of the sleepers is calculated with reference to the installation year. If the installation year is missing, then it is set to the minimum life assumption of 10 per cent of the design life.
 - A weighted average remaining life (WARL) for sleepers is calculated for each installation year, along with an overall WARL of 15.3 years.
 - This overall WARL is compared with the design life of a concrete sleeper.
149. For the purposes of the draft decision the ERA applies a depreciation rate of around 69 per cent for sleeper assets.

Track – Ballast

150. Arc's proposal included depreciation for ballast of \$281 million, which amounted to approximately 18 per cent of Arc's estimated ballast ORC of \$1,557 million.⁶⁷ On a corrected basis the depreciation rate is around 9 per cent.
151. Arc reported that approximately 60 per cent of ballast has unspecific data on the commissioning date. With no data available, Arc assumes that the age of ballast matches that of rail with:⁶⁸
- Narrow gauge track in late 1800s – early 1900s.
 - Standard gauge track from 1961.
 - Dual gauge track from 1968.
152. The standard design life for ballast in the Costing Principles is 50 years.

⁶⁷ GHD Advisory, *Applicable Railway Infrastructure DORC Final Report Arc Infrastructure Pty Ltd*, 6 June 2025, p. 143.

⁶⁸ GHD Advisory, *Applicable Railway Infrastructure DORC Final Report Arc Infrastructure Pty Ltd*, 6 June 2025, p. 141.

153. Arc's approach for ballast diverges from the Costing Principles. Arc does not systematically undertake ballast replacement, but does typically complete about 6km of ballast replacement per year as part of other works (e.g. turnout replacement, culvert works). When applied across the network of about 5,270 km of track, Arc therefore implies that ballast has an effective useful life of 878 years.⁶⁹ It appears that Arc has used this life to estimate the remaining useful life of ballast across the network.
154. Submissions noted that the 878 years effective life bears no resemblance to the endorsed standard design life in the Costing Principles.
155. The ERA considers that Arc's implied approach is not consistent with the standard design life or the DORC valuation exercise. Arc's implied 878 year useful life does not reflect a sustainable level of ballast replacement nor the current condition of ballast across the network. The 878 year figure is solely driven by Arc's other works that happen to have replaced ballast.
156. The ERA considers that ballast deteriorates over time consistent with the 50 year standard design life for ballast.
157. For the purposes of the draft decision, the ERA has aligned the depreciation approach for ballast with the standard design life of 50 years in the Costing Principles. Given the assumed commissioning date for the majority ballast, this means that the remaining life for most ballast lies at the minimum 10 per cent remaining useful life (that is, 5 years remaining life).
158. For the purposes of the draft determination the ERA applies a depreciation rate of around 74 per cent for ballast assets.
159. The ERA seeks further information on ballast assets, and this additional information may better inform the ERA's approach to the depreciation of ballast assets in the final determination.

Question 6.7

What information exists regarding the condition of ballast assets that are not currently identified in this draft decision?

Signalling and Control Systems

160. Arc's proposal included depreciation for Signalling and Control System assets of \$5.0 billion (alternative A), which amounted to approximately 66 per cent of Arc's estimated signalling ORC cost of \$7.4 billion (alternative A).⁷⁰ These figures remove non-operational assets, which are optimised out.

⁶⁹ GHD Advisory, *Applicable Railway Infrastructure DORC Final Report Arc Infrastructure Pty Ltd*, 6 June 2025, p. 141.

⁷⁰ GHD Advisory, *Applicable Railway Infrastructure DORC Final Report Arc Infrastructure Pty Ltd*, 6 June 2025, p. 149.

161. This asset class is the second biggest asset class by ORC value, being approximately 25 per cent of Arc's proposed total ORC. It has relatively higher asset condition information with 81 per cent of the ORC having a known installation date.⁷¹ Therefore, it is relatively easier to implement linear depreciation to the valuation date.

162. For the purposes of the draft determination, the ERA applies Arc's corrected depreciation approach for Signalling and Control System assets.

Final depreciation amounts

163. The ERA DORC draft decision includes a total depreciation amount of \$9.1 billion.

164. The ERA considers that its draft decision on Arc's depreciation best meets the Act objective to establish a rail access regime that encourages the efficient use of, and investment in, railway facilities by facilitating a contestable market for rail operations. This includes the ERA's taking into account both the railway owner's legitimate business interests and costs, and the interest of parties using the railway infrastructure.

165. The ERA's proposed depreciation by asset class is provided in Table 6.7.

Table 6.7: ERA depreciation by asset class

Asset category	ORC (\$ million)	Depreciation (\$ million)	Accelerated Depreciation (\$ million)	Depreciation rate (%)
Right of Way*	1,804.3	–	–	–
Civil Structures	635.1	430.2	29.3	72.4%
Track	11,454.7	6,365.4	328.8	58.4%
Signalling and Communications	2,586.8	1,665.3	90.6	67.5%
Buildings and Miscellaneous	349.1	217.8	11.2	65.6%
Associated Track Structures	41.9	17.3	1.5	45.1%
Total	16,871.9	8,685.9	461.6	54.2%

Note: * Right of Way assets do not have accumulated depreciation which results in a zero depreciation rate.

166. Two asset categories dominate the depreciation estimate with 73 per cent of total depreciation coming from track and 19 per cent coming from signalling and control systems.

167. The ERA seeks stakeholder comment on its depreciation approach and will consider any further feedback as part of final determination on Arc's DORC valuation.

⁷¹ GHD Advisory, *Applicable Railway Infrastructure DORC Final Report Arc Infrastructure Pty Ltd*, 6 June 2025, p. 148.

Question 6.8

Do you support the ERA's draft depreciation approach? If not, what alternative approach/s could be adopted instead and why?

Question 6.9

Are there any other relevant depreciation matters that should be considered by the ERA for the final determination?

Appendix 1 List of Tables

Table 6.1: Asset class standard design life	7
Table 6.2: Arc's Remaining Life Assessment Hierarchy	8
Table 6.3: Arc proposed depreciation by asset class	10
Table 6.4: Depreciation rates by Asset Type – Arc vs RPI	21
Table 6.5: ERA's High-Level Remaining Life Assessment Hierarchy	28
Table 6.6: ERA's draft decision depreciation rates by asset type	30
Table 6.7: ERA depreciation by asset class	38