



Economic Regulation Authority

Railways (Access) Code 2000 Public Transport Authority Costing principles

Approval decision

5 November 2024

Acknowledgement of Country

At the ERA we value our cultural diversity and respect the traditional custodians of the land and waters on which we live and work.

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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Executive summary

The Railways (Access) Code 2000 provides for the negotiation of access agreements between railway owners and access seekers, the arbitration of disputes and the Economic Regulation Authority's role in these processes. The provisions are set out under the requirements of Part 2 of the *Railways (Access) Act 1998*. The Act establishes a rail access regime that encourages the efficient use of, and investment in railway facilities by facilitating a contestable market for rail operations.

The Code was amended on 19 December 2023. These amendments changed the method of asset valuation for the regulatory scheme from gross replacement value asset valuation to depreciated optimised replacement cost valuation.

The regulator's role in respect of the new cost assessment scheme requires the ERA to consider a number of factors, including depreciation and optimisation of asset values and the establishment of regulatory asset bases. These considerations are additional to those required under the previous Code, and require the submission of more detailed commercial information by railway owners.

Existing railway owners were required to submit costing principles to the ERA for approval, within 60 days of the new Code coming into effect. These costing principles must include a statement of the principles, rules and practices that are to be applied and followed by the railway owner:

- When determining the depreciated optimised replacement cost of applicable railway infrastructure.
- When determining the updated regulatory asset base of applicable railway infrastructure.
- When determining the costs referred to in clauses 7 and 8 of Schedule 4 to the Code, which relate to floor and ceiling price tests used in access negotiations.
- In the keeping and presentation of the railway owner's accounts and financial records so far as they relate to the determination of those costs.

On 9 September 2024, the Public Transport Authority (PTA) submitted costing principles for its urban public transport network for the ERA's approval. The ERA published these proposed costing principles on 9 September 2024, and did not receive any public submissions in response.

This decision:

- summarises the PTA's proposed costing principles by numbered section
- provides an outline of matters the ERA has considered
- provides the ERA's required amendments, where applicable.

The ERA has approved the PTA's costing principles, with six amendments.¹ These amendments include:

- To fix numbering errors in the introduction section.

¹ Section 47H(3) of the Code requires the ERA to approve the proposed costing principles with or without amendments, or to determine what are to constitute the costing principles.

- To ensure defined terms in the Code are used correctly.
- To remove the requirement for the PTA's costing principles to be independently audited.
- To ensure the PTA's route sections are correctly identified in the costing principles.

The PTA must now provide the approved costing principles to the ERA for publication by 19 November 2024.

1. Section 1 – Introduction

Sections 1.1 – 1.3 – Railway owner, background, scope

1. Section 1.1 of the proposed costing principles provides an overview of the railway network, and the role and functions of the PTA as the railway owner.
2. Section 1.2 refers to the purpose of the Act and the Code and to Schedule 1 to the Code, which lists the routes on the PTA railway network that are covered by the Code.
3. Section 1.3 outlines the relevant sections of the Code that the costing principles give effect to, identifies the relevant sections of the costing principles, and defines acronyms which apply throughout the document.

ERA considerations – section 1

4. There are a number of errors in in Table 1, section 1 of the PTA's proposed costing principles:
 - The purpose of the costing principles is outlined in section 1.3 (not 1.2 as stated).
 - The determination of depreciated optimised replacement cost, outlined in sections 47H(1)(a) and 47J(1)(a) of the Code is shown in section 3 (not 2.0 as stated).
 - The annual update of the Regulatory Asset Base, outlined in section 47H(1)(b) of the Code is shown in section 4 (not 3.0 as stated).
 - Determination of total costs and incremental costs, outlined in section 47H(1)(c) of the Code is shown in section 2 (not 4.0 as stated).
 - Determination of the accumulated depreciation for initial RAB, outlined in section 47H(2)(b)(i) of the Code is shown in section 3.6 (not 2.7 as stated).
 - Determination of Annual RAB Update Depreciation, Total and Incremental Cost Depreciation, outlined in section 47H(2)(b)(ii) of the Code is shown in section 4.5 (not 3.5 as stated).
 - Asset Grouping 47H(2)(c) and 47H(4)(a)-(c) of the Code is not addressed in the document. The omission is addressed in ERA considerations of Appendix 2.

Required Amendment 1

Table 1 third column of section 1.3 of the costing principles must be amended by replacing:

- 1.2 with 1.3
- 2.0 with 4.
- 4.0 with 2.
- 2.7 with 3.6
- 3.5 (Annual RAB update depreciation) with 4.5
- 3.5 (Asset grouping) with Appendix 2

Section 2 – Costs

5. Section 2 of the PTA's proposed costing principles summarises the purposes of determined costs, the clauses of Schedule 4 to the Code that are relevant to the determination of costs, and provides an assurance that all costs will be efficient costs that would be incurred by a prudent railway owner acting in accordance with good industry practice.
6. Section 2 states that the costs described in this section are the costs that the PTA will provide to an access seeker under Part 2 (section 9) of the Code, as the costs for each route section, including the costs for each year of the period for which access is sought.

Section 2.1 – Total costs

7. Section 2.1 of the proposed costing principles defines total costs as the sum of operating costs, capital costs and overhead costs.
8. Section 2.1 indicates that forecast costs will be calculated at their net present value.

Section 2.1.1 – Operating expenditure

9. Section 2.1.1 outlines that operating expenditure is defined in the Code as operating costs and overheads attributable to the performance of the railway owner's access-related functions.
10. Section 2.1.1 lists four categories of operating costs, including a catch all "other operating cost category" included in the fourth category, as follows:
 - Routine and cyclical maintenance costs for track, signals, communications and other railway infrastructure.
 - Network management costs.
 - Emergency management costs.
 - Information reporting costs; and other operating costs.
11. Section 2.1.1 states that the PTA will allocate operating costs directly to route sections, or where operating costs cannot be directly attributed, the PTA will assign operating costs to route sections in accordance with cost allocators shown in Appendix 3 of the proposed costing principles.
12. Section 2.1.1 states that, when forecasting operating costs, the PTA may consider factors including:
 - Number of contracted train paths as a proportion of the total number of contracted train paths operated on the route section.
 - Number of train services as a proportion of the total number of train services operated on the route section.
 - Type of rolling stock and product transported.

- Network standard required.
 - Factors relevant to assessing operating versus capital solutions, such as asset condition.
 - Indexation of costs.
 - Future network requirements.
13. Section 2.1.1 provides an undertaking that PTA will provide the ERA with supporting material demonstrating the efficiency of operating costs, and that the nature of the supporting material will be determined at the time of submission.
14. Section 2.1.1 states that the PTA has three categories of overhead costs in the PTA's costing model:
- Transperth Train Operation Division overheads
 - Network and Infrastructure Division overheads
 - Corporate overheads.
15. Section 2.1.1 indicates that overhead costs include but are not limited to:
- Safety;
 - Legal fees and other statutory costs.
 - Training and development costs for staff.
 - Communication costs such as telephone, facsimile and data transmission, motor vehicles, travel and accommodation.
 - Office stationary and consumable sundry items.
 - Inventory holding costs.
 - Labour on-costs (superannuation, payroll tax, workers' compensation and long service leave).
 - Fringe Benefits Tax.
 - Building lease costs, power and water.
 - Corporate overheads (finance, human resources, safety compliance).
 - Safety accreditation fees.
16. Section 2.1.1 states that the PTA will allocate overhead costs directly to route sections, or where overhead costs cannot be directly attributed, the PTA will assign overhead costs to route sections in accordance with cost allocators shown in Appendix 3 of the proposed costing principles. The PTA states that it will not allocate any overhead costs to a route section that are not directly or indirectly relevant to that route section.

Section 2.1.2 – Capital costs

17. Section 2.1.2 of the PTA's proposed costing principles states that capital costs are comprised of depreciation and the risk-adjusted return on the relevant railway infrastructure applicable or forecast to be applicable to a proposal.
18. Section 2.1.2 indicates that the applicable depreciation for each year will be determined in accordance with the applicable depreciation schedule approved by the ERA under clause 2(4)(B) of Schedule 4 to the Code.
19. Section 2.1.2 states that the PTA will calculate the risk adjusted return for each year of the relevant period, by multiplying the RAB applicable, or forecast to be applicable, by the WACC appropriate to the railway infrastructure.²

Section 2.2 – Incremental costs

20. Section 2.2 of the PTA's proposed costing principles indicates that the calculation of incremental costs is dependent on a number of specific circumstances of the access holder or access seeker and the route sections to which access is obtained or sought under a proposal, and that access holders may have different incremental costs on the same routes.
21. Section 2.2 states that the PTA will consider the following factors in calculating incremental costs:
 - The percentage that the incremental traffic represents in total traffic.
 - The existing overall level of traffic (as high-density or low-density traffic).
 - The requirements of the service (e.g., high speed passenger versus low-speed freight).
 - The nature of the railway infrastructure (which will influence operating costs) and the specific requirements of the access holder.
 - The nature of train operations and its impact on overhead costs.
 - Indexation of costs.

ERA considerations – section 2

22. The proposed costing principles in section 2 refers to the determination of costs by the PTA under clause 10 of Schedule 4 to the Code. This reference does not acknowledge that the determination of costs by the PTA must be approved by the ERA, or re-determined by the ERA.
23. Section 2.1 of the proposed costing principles states "Forecast costs are calculated at their net present value". The statement implies that costs are discounted by the WACC

² The acronym WACC does not appear in the Code, but is defined in PTA's costing principles as the Weighted Average Cost of Capital.

applicable to the PTA. There is no explanation of why this statement has been provided.

24. Access seekers may sometimes express prices in real or nominal terms. Regulators commonly use both nominal and real dollars. This is a matter of escalating or de-escalating costs by the inflation rate, not the WACC. The only reason costs might be discounted by the WACC would be to smooth calculated revenue to be earned over multiple years where the business is kept whole in present value terms.
25. In section 2.1.1, reference is made to cost allocators in Appendix 3 (two instances). The cost allocators are outlined in Appendix 4 of the proposed costing principles.
26. Section 2.1.1 includes the words “Overhead costs are defined in the Code”. The Code does not define the term “overhead costs”.
27. In section 2.1.1, under the definition of “Operating Costs”, a category of “other operating costs” is included. The ERA does not consider the inclusion of a catch-all category is appropriate, as it is not adequately defined.
28. In section 2.1.1, “Transperth Train Operation Division overheads” are included as a category of overhead cost. The PTA has not explained or defined in which way a category of costs associated with above-rail operations are relevant to below-rail overhead costs.

Required Amendment 2

In the second paragraph of Section 2, the sentence “These costs must be approved or re-determined by the Regulator” must be added.

The words “Forecast costs are calculated at their net present value” in section 2.1 must be removed.

In section 2.1.1, the two references to Appendix 3 must each be amended to Appendix 4.

In section 2.1.1, the words “Overhead costs are defined in the Code and” must be removed.

In section 2.1.1, the words “and other operating costs” must be removed.

In section 2.1.1, the reference to Transperth Train Operation Division overheads must be removed.

Section 3 – Depreciated optimised replacement cost for initial RAB valuation

Section 3.1 – Background

29. Section 3.1 of the PTA's proposed costing principles lays out the requirements of section 47(J) of the Code, and refers to the definition of depreciated optimised replacement cost in section 3 of the Code.³
30. Section 3.1 of the proposed costing principles outlines the following step calculations will be made to determine depreciated optimised replacement cost:
- Step 1: determine the replacement cost of assets by obtaining the current cost to replace the existing assets with their modern equivalents or, if new assets, the current construction cost of the assets.
 - Step 2: optimise the mix of modern equivalent assets such that there is capacity necessary to meet a reasonably projected demand.
 - Step 3: remove any contributed capital from the value of the optimised modern equivalent asset.
 - Step 4: Depreciate the optimised replacement cost of the asset to reflect accumulated depreciation.
31. The proposed costing principles states that the depreciated optimised replacement cost of applicable railway infrastructure associated with a route section approved or determined by the ERA is the initial RAB referred to in section 47J(7) of the Code.
32. Section 3.1 states that the PTA will provide the ERA with supporting material demonstrating the basis of each determination as required under section 47J(1) of the Code, and as necessary for the ERA to meet its obligations to approve or not approve the statement under section 47J(3) in the evaluation of the PTA's proposed depreciation schedule. Section 3.1 of the proposed costing principles states that the supporting material provided by the PTA will be determined at the time of submission.

Section 3.2 – Valuation date

33. Section 3.2 of the PTA's proposed costing principles defines valuation date as the date that the PTA will determine the value of the initial RAB of the railway network, or such other date as agreed with the ERA.

Section 3.3 – Replacement cost

34. Section 3.3 of the PTA's proposed costing principles outlines that the replacement cost of assets will be taken as the current cost of modern equivalent assets or, if the railway assets are new and built efficiently, the current construction cost of assets. The current costs of modern equivalent assets will be the lowest costs currently available for high

³ The acronym DORC does not appear in the Code, but DORC but is defined in PTA's costing principles as the Depreciated Optimised Replacement Cost.

quality new railway infrastructure that will meet the level of service of actual and reasonably projected demand, and which comply with relevant building codes and legislation.

35. Section 3.3 of the proposed costing principles outlines that the scope of modern equivalent assets will be defined on the basis of the closest comparable service standard to the existing asset. The key capital cost drivers for railway infrastructure will be taken to be:
- Train operating standards (axle load, maximum speed, maximum train length).
 - Supporting infrastructure (culverts, bridges).
 - Topography of the route (gradient and track curvature).
 - Forecast demand and improvement to service levels.
36. Section 3.3 outlines that asset replacement costs will include provision for:
- Amortisation of the costs of acquiring any interest or access to land.
 - Design development, planning and approval costs.
 - Material and construction costs, project and construction management costs and funding costs.

Section 3.4 – Optimisation

37. Section 3.4 of the PTA's proposed costing principles indicates that modern equivalent assets will be optimised by determining the optimal mix and configuration that would deliver the service level associated with actual and reasonably projected demand. Service levels will be determined with consideration of maximum axle loads, maximum train speeds and maximum train lengths.
38. Section 3.4 of the proposed costing principles indicates that the PTA may adjust the number and type of assets, for determining the optimal mix of assets, by:
- Identifying and removing redundant assets.
 - Assessing modern equivalent asset capacity against existing asset capacity.
 - Assessing the demand forecast to identify any required changes in service capacity of assets.

Section 3.5 – Contributed capital

39. Section 3.5 of the PTA's proposed costing principles indicates that the PTA will not include in the initial RAB the value of the proportion of any railway infrastructure that has been funded wholly or partly by contributed capital.
40. Section 3.5 of the proposed costing principles also includes the following statement:

The PTA is a wholly owned public sector entity that is controlled by the State of Western Australia. PTA has no previous contributed capital to remove from the initial RAB. This is not expected to change prior to the calculation of the initial RAB.

Section 3.6 – Accumulated depreciation

41. Section 3.6 of the PTA's proposed costing principles outlines that accumulated depreciation for the initial RAB will be calculated with reference to the railway infrastructure's economic life and the standard design life. Railway infrastructure standard design lives are detailed in Appendix 2 of the proposed costing principles.
42. Section 3.6 of the proposed costing principles outlines that a measure referred to as useful life of the asset may be used by the PTA when the economic life and standard design life are not available.
43. In determining the economic life of an asset, the proposed costing principles states the PTA will consider the current physical condition of the asset, and forecast the rate at which the asset will be consumed. Section 3.6 says that the optimised replacement cost for the asset will be determined on the basis of the economic life and the standard design life and provides a numerical example.

ERA considerations – section 3

44. In section 3.1 the title of Table 4 is incorrect. The reference to section 47(J)(3) should be to section 3 of the Code, which shows the definition of depreciated optimised replacement cost.
45. In section 3.1, the term "optimisation factor" employed in figure 1 is not defined in the Code or in the proposed costing principles.
46. In section 3.3, at the second paragraph, the cost of modern equivalent assets is defined as the "lowest cost currently available for high quality new railway infrastructure." The ERA notes that a reference to high quality does not appear in the Code, and considers that this term may be construed to encourage "gold plating" of assets.
47. In section 3.3, at the last paragraph, the reference to Schedule 4 Division 1 clause 5 is incorrect. The correct reference is clause 2(5) of Schedule 4.
48. The following statement is included in section 3.5:

The PTA is a wholly owned public sector entity that is controlled by the State of Western Australia. PTA has no previous contributed capital to remove from the initial RAB. This is not expected to change prior to the calculation of the initial RAB.

Inclusion of this statement is considered inappropriate as it will become redundant on determination of the initial RAB, and would need to be removed from the costing principles after that time.

49. Section 3.6 states that depreciation will be determined with reference to the economic life and the standard design lives detailed in Appendix 2. The ERA considers this an ambiguous statement, as economic lives are not detailed in Appendix 2. Section 3.6 goes on to state that "the useful life of the asset may be used by PTA when the Economic Life and Standard Design Life are not available." The ERA notes that term "useful life" is not defined in the Code or in the proposed costing principles. The ERA

does not expect that Standard Design Lives might ever be considered “not available” if they are specified adequately in Appendix 2.

50. Section 3.6, at the third paragraph, refers to the optimised replacement cost of the asset. The correct reference is to the depreciated optimised replacement cost.

Required Amendment 3

In section 3.1, amend the title of Table 4 Section 47(J)(3) to Table 4: Section 3

In appendix 3, include the following definition for optimisation factor: Optimisation factor means the percentage of asset value which is not removed for optimisation.

In section 3.3 at the second paragraph, remove the words “high quality”.

In section 3.3, at the last paragraph, replace “Schedule 4, Division 1 clause 5” with “Schedule 4, clause 2(5)”

In section 3.5, replace “by not including the following” with “as outlined in Section 47G of the Code, as follows”.

In section 3.5, remove the last paragraph.

In section 3.6, amend the second paragraph to read “Accumulated depreciation for the initial RAB will be calculated with reference to the Standard Design Life of the Railway Infrastructure detailed in Appendix 2 and the Economic Life of the assets. In determining the Economic Life of an asset, the PTA will:”

In section 3.6, at the second last paragraph, replace the words “optimised replacement cost” to “depreciated optimised replacement cost”.

Section 4 – Annual RAB update

Section 4.1 – Background

51. Section 4.1 of the PTA's proposed costing principles provides an undertaking that updates to the RAB for each route section will be determined within 60 business days of 30 June each year.
52. Section 4.1 of the proposed costing principles outlines the following process for the annual updates:
 - Take the current RAB of the route section.
 - Add asset indexation for the relevant period.
 - Add capital expenditure incurred by the PTA over the relevant period.
 - Deduct depreciation over the relevant period.
 - Deduct the value of railway infrastructure disposed of, made redundant or stranded.
53. Section 4.1 states that the supporting material that will be provided by the PTA will be determined at the time of submission.

Section 4.2 – Asset indexation

54. In relation to the second dot point shown in paragraph 52 above, section 4.2 of the PTA's proposed costing principles states that the PTA will apply indexation in accordance with the movement in consumer price index between June quarters. The consumer price index is defined in Appendix 3 as the Australian Bureau of Statistics' Eight Capital Cities All Groups measure.

Section 4.3 – Capital expenditure

55. In relation to the third dot point shown in paragraph 52 above, section 4.3 of the PTA's proposed costing principles states that the PTA will add capital expenditure made by the PTA during the previous relevant period.
56. Section 4.3 of the proposed costing principles provides an undertaking that the ERA will determine whether the capital expenditure is efficient or inefficient (under section 47V(1) of the Code).
57. Section 4.3 indicates that when assets are added to the updated RAB, their assumed economic life will be the standard design life provided in Appendix 2 for that asset class.
58. Section 4.3 outlines that capital expenditure investments will be assumed to occur mid-year, and that a "half-WACC will be added to the capital expenditure" to compensate for the six-month period before the capital expenditure is included in the RAB. A sample formula is included in section 4.3 of the proposed costing principles.

Section 4.4 – Contributed capital

59. In relation to the fourth dot point shown in paragraph 52 above, section 4.4 of the PTA's proposed costing principles states that the PTA will not include in capital expenditure the proportion of any railway infrastructure that has been funded wholly or partially by contributed capital.

Section 4.5 – Depreciation

60. In relation to the fifth dot point shown in paragraph 52, the first paragraph of section 4.5 of the PTA's proposed costing principles states that the costing principles are required to describe the intended method for calculating depreciation, and goes on to replicate the wording of section 47H(2) which states that the costing principles are to:
- (b) describe the intended method for calculating .. (ii) depreciation for the purposes of determining the updated regulatory base of applicable railway infrastructure.
61. The second paragraph of section 4.5 of the proposed costing principles replicates the wording of section 47N(3) of the Code, for the deduction of depreciation, as:
- (d) deducting depreciation over the relevant period of applicable railway infrastructure associated with the route section, in accordance with the applicable depreciation schedule for the time being approved or determined by the regulator under section 47K(3).
62. The third paragraph of section 4.5 states that the details of the PTA's depreciation methodology are to be submitted to the Regulator in the statement of applicable depreciation schedule under section 47K(1) of the Code, and goes on to replicate the wording of section 47K(1) of the Code.
63. The fourth paragraph of section 4.5 provides an undertaking that the PTA will prepare a depreciation schedule of applicable assets comprised of railway infrastructure, and that the depreciation schedule will set out the depreciation to be applied against assets within relevant asset groups over their economic life.
64. The fifth paragraph of section 4.5 states that, to determine the updated RAB the costing principles will specify if assets will be grouped, and if so, how assets will be grouped, and goes on to replicate the wording of section 47H(4) in table form which specifies the matters that the regulator must be satisfied of in relation to the grouping of assets.
65. The fifth paragraph concludes with a sentence which reads "as the PTA has few applicable route sections under the Code, there are relatively few assets to group.
66. The sixth paragraph of section 4.5 replicates the wording of section 47K(5) of the Code.
67. The seventh paragraph of section 4.5 states that the PTA may change the economic life of an asset or group of assets to accelerate depreciation where there is a risk of asset stranding or defer depreciation where the market for access to the asset is relatively immature.
68. The eighth paragraph of section 4.5 replicates the wording of section 47K(6) of the Code, which outlines the matters the regulator must have regard to before approving non-uniform depreciation.
69. The last three paragraphs of section 4.5 provide undertakings that the PTA will:

- Provide evidence for changes in circumstances impacting on the depreciation schedule which could not have been foreseen.
- Redetermine, if appropriate, the applicable depreciation for that asset with reference to the remainder of the asset's economic life.
- Not engage in double counting by ensuring that the sum of the return of capital attributed to an asset over its economic life, via depreciation, does not exceed the value of the asset at the time at which it is first included in the RAB.

Section 4.6 – Disposed, redundant and stranded railway infrastructure

70. Section 4.6 of the PTA's proposed costing principles outlines that where railway infrastructure is disposed of, becomes redundant or is stranded, the PTA will remove the value of the railway infrastructure which has been disposed of, made redundant or stranded from the updated RAB.
71. Section 4.6 of the proposed costing principles outlines that disposal, redundancy and stranding will be assumed to occur mid-year, and that a 'half-WACC will be applied to those asset values.

ERA considerations – section 4

72. In section 4.3, the proposed costing principles states that:
- After determining and submitting the updated RAB to the Regulator, the Regulator will determine whether the capital expenditure is efficient or inefficient under section 47V(1) of the Code. The factors that the Regulator takes into account determining if the capital expenditure is efficient in relation to the Updated RAB are set out in section 47V(3) of the Code.
73. The ERA considers that it is not appropriate for the costing principles to prescribe the ERA's obligations in respect of the Code.
74. The ERA considers the use of the term "half-WACC" in section 4.3 is inappropriate, as it does not accurately reflect the application of a full WACC over a half-year period. Further, the formula provided in Figure 5 and Figure 6 is not a correct representation of the measure.
75. Table 7 in section 4.3 is supposed to replicate the wording of section 47V(3) of the Code. Section 47(V)(3) refers to "a prudent railway owner" and this is not reflected in Table 7.
76. Section 4.5, describing the determination of depreciation, consists largely of paragraphs that replicate the wording of relevant sections of the Code. In other sections of the proposed costing principles, wording replicating the Code wording is presented in table format. All paragraphs except paragraphs 4, 7, 9-11 should be clearly designated as replicating the wording of the Code, and not thereby providing an assurance of the PTA's undertakings in these respects.
77. In relation to paragraph 5 of section 4.5, the number of "applicable route sections" is irrelevant to the grouping of assets. The PTA has provided no guidance on the

grouping of assets on the basis of its number of route sections. The PTA has not listed all applicable route sections in Appendix 1 of its proposed costing principles.

Required Amendment 4

In section 4.3, the wording:

After determining and submitting the updated RAB to the Regulator, the Regulator will determine whether the capital expenditure is efficient or inefficient under section 47V(1) of the Code. The factors that the Regulator takes into account in determining if the capital expenditure is efficient in relation to the Updated RAB are set out in section 47V(3) of the Code.

Must be amended to:

The PTA will demonstrate that the capital expenditure is efficient with reference to the factors outlined in section 47V(1) of the Code.

In section 4.3, the reference to “half WACC” must be amended to reflect the application of the WACC for half a year, and the formula shown in Figure 5 must be amended to:

$$\text{Net Capex Value} = \text{Net Capex} \times (1 + \text{WACC})^{1/2}$$

In Table 7, section 4.3, the words “incurred by the railway owner” must be amended to “incurred by a prudent railway owner”.

In section 4.5, the statement “As the PTA has few applicable route sections under the Code, there are relatively few assets to group” must be removed.

The following statement must be included at the end of Appendix 2:

“The Standard Design Lives above are generally indicative for the relevant Asset Class and Asset Group. Application of these lives will take various factors including but not limited to use and asset attributes (including track gauge) into account”

Section 5 – Cost record keeping

78. Section 5 of the PTA's proposed costing principles states that the PTA's financial records will be maintained at a level of detail required to support the costing principles. Section 5 of the proposed costing principles provides an undertaking that all cost records will be provided to the ERA when requested.

ERA considerations – section 5

79. The ERA considers that Section 5 of the PTA proposed costing principles provides an assurance that financial records will be maintained in a form adequate to allow any determination of costs by the PTA to be properly assessed.

Section 6 – Double counting

80. Section 6 of the PTA's proposed costing principles states that the PTA will record depreciation allowances to prevent double counting.

ERA considerations – section 6

81. The ERA considers that Section 6 of the PTA proposed costing principles provides an assurance that depreciation accounts will be maintained in a manner which prevents double-counting, and reflects the requirements of section 47F of the Code.

Section 7 – Financial administration

82. Section 7 of the PTA's proposed costing principles states that the financial management of the PTA will be conducted in compliance with the Australian Accounting Standards (AASB) and the *Corporations Act 2001*.

ERA considerations – section 7

83. The ERA considers that Section 7 of the PTA's proposed costing principles adequately reflects the requirements of section 47H(10) of the Code.

Section 8 – Compliance audits

84. Section 8 of the PTA's proposed costing principles states that ERA may require that the PTA's compliance with the costing principles be subject to independent external audit and that the costs of the audit will be the responsibility of the PTA. The proposed costing principles states that the ERA will approve the scope of the audit and may select and manage the auditor. The final audit report would be provided to the ERA and may be published by the ERA.

ERA considerations – section 8

85. The ERA does not consider the inclusion of provision for audits of costing principles to be necessary or appropriate. An audit of the costing principles will effectively occur each time the ERA approves or determines costs for the railway owner in response to a proposal.

Required Amendment 5

Section 8 of the PTA's proposed costing principles must be deleted.

Section 9 – Review and consultation

86. Section 9 of the PTA's proposed costing principles states that ERA may give written notice directing that the costing principles be amended or replaced. Access seekers or operators may request the ERA to consider amendments to the costing principles. The PTA may amend or replace the costing principles with the approval of the ERA.

ERA considerations – section 9

87. In relation to section 9, the ERA notes that the undertakings provided in Section 9 of the proposed costing principles adequately reflects requirements of section 47H(6) and 47H(7) of the Code.

Appendix 1 – Route sections

88. Appendix 1 of the PTA's proposed costing principles nominates the route sections subject to the costing principles. The route sections nominated are those comprising:
- Part of Route 49(d) in Schedule 1 to the Code, being the narrow gauge double tracks between Perth and Midland, excluding the Perth to East Perth section.
 - Part of Route 50 in Schedule 1 to the Code, being the dual gauge track between Robb Jetty and Leighton and the spur line between Leighton and North Fremantle, excluding the spur between Leighton and North Fremantle.

ERA considerations – Appendix 1

89. The ERA notes that Schedule 1 to the Code lists the routes to which the Code applies. The Code applies to all routes listed in Schedule 1 to the Code. This is acknowledged in section 1.2 of the proposed costing principles.
90. The ERA considers that Appendix 1 must show all routes as they are listed in Schedule 1. The routes must be assigned the identification numbers shown in Schedule 1 to the Code. Routes may be split into route sections which are capable of being reconciled with the PTA's management accounting system.

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Appendix 1 must show all routes listed in Schedule 1 to the Code, and these routes must be cross referenced to the route numbers listed in Schedule 1.

Appendix 2 – Standard design life

91. Appendix 2 of the PTA's proposed costing principles nominates the standard design lives of asset classes and asset groups.

ERA considerations – Appendix 2

92. The ERA has noted that the standard design lives nominated by the PTA correspond exactly with the standard design lives approved by the ERA as part of Arc Infrastructure's costing principles. The ERA does not require any amendment to Appendix 2.

Appendix 3 – Definitions

93. Appendix 3 of the PTA's proposed costing principles provides a table of definitions for terms used in the costing principles.

ERA considerations – Appendix 3

94. The ERA does not require any amendment to Appendix 3.

Appendix 4 – Cost allocators

95. Appendix 4 of the PTA's proposed costing principles shows a table of cost allocators for Operating Costs and Overhead Costs.

ERA considerations – Appendix 4

96. The ERA has noted that the PTA has proposed to allocate all costs on the basis of
- a. gross tonne kilometres for railcars
 - b. kilometres travelled for train cars.
97. Railway owners sometimes allocate network management costs on the basis of the number of train movements (and not on a measure of distance travelled), as these costs generally do not vary with distance travelled.
98. The PTA has elected to allocate all costs (including network management costs) on a kilometre or gross tonne kilometre basis.
99. The ERA does not require any amendment to Appendix 4.

Suggested amendments

100. The ERA has written separately to the PTA to advise of suggested amendments which do not affect the substance of the costing principles. These are formatting, spelling and syntax anomalies that the PTA may wish to address. The anomalies, as presented in the proposed costing principles, do not have a material effect on the operation of the costing principles.