Government of **Western Australia**
Department of **Treasury**

Review of the Western Australian Rail Access Regime

Final Decision Paper

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Review of the Western Australian Rail Access Regime – Final Decision Paper

Further information relating to this report may be obtained by emailing regulatory.reform@treasury.wa.gov.au

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Executive Summary

Importance of an effective access Regime

Whether its minerals or grains, getting product from remote areas of Western Australia to market in a timely and cost-effective manner is important to ensure that Australian industry remains competitive in the global economy. With Western Australia facing ever increasing competition in our key export industries, it is important that the cost structures through the supply chain, including rail access charges, terms and conditions, are as efficient and fair as possible.

An effective access regime is important for users and potential users of railways, whose business depends on rail freight and for railway owners, who have made significant investments in infrastructure and reasonably expect to make a fair return on those assets.

Objectives of the Regime and the review

The Western Australian Rail Access Regime (the Regime) is made up of the *Railways (Access) Act 1998* (the Act) and the Railways (Access) Code 2000 (the Code). The object of the Act is 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'. The Government considers this to mean that the Regime should result in efficient access prices that reflect what would be achieved in a competitive market for rail facilities, allowing for an appropriate return on investment for railway owners.

The Government also considers it important that the Regime enables access seekers and railway owners to arrive at a commercially negotiated agreement that reflects the terms, conditions and risks specific to their access arrangements. At the same time, the Regime should maximise the efficiency of the regulatory process, so that railway owners, access seekers and the Regulator spend as little time and money as necessary in applying the Regime.

Consideration has been given to the circumstances that parties are in when they choose to use the Regime, which is usually when a commercial agreement cannot be reached outside of the regulatory framework. With this in mind, it is important to provide a reasonable level of guidance and structure to negotiations to allow them to proceed on a fair and timely basis.

This review has been carried out in close consultation with industry stakeholders. As well as seeking submissions on an Issues Paper in 2017 and Draft Decision Paper in 2018, several informal papers have been circulated, workshops and meetings with railway owners and access seekers in Western Australia and interstate have been held, and there has been close liaison with the Department of Transport, Department of Jobs, Tourism, Science and Innovation, and the Economic Regulation Authority. These consultations have informed the strengths and weaknesses summarised below and the recommendations put forward in this paper.

Current strengths of the Rail Access Regime

There are a number of strengths of the Regime that have been identified. These include:

- **Emphasis on commercial negotiation**: the Regime focuses on allowing commercial negotiation between parties based on the unique terms, conditions and risks of each access agreement.
- **Flexibility:** the Regime suits the diverse range of railways and freight tasks in Western Australia.
- **Low regulatory burden:** the Regime imposes little regulatory burden as requirements such as an asset valuation are only required as and when an access proposal is made.

What are the issues that have been identified?

Despite several strengths, there are a number of weaknesses with the Regime which mean it is not providing an effective regulatory backstop for commercial negotiations. These include:

- **Not being seen by access seekers as a viable alternative when commercial negotiations fail:** access seekers do not see the Code as providing enough structure and guidance to be a realistic backstop to negotiations.
- **Inefficient and lengthy processes:** negotiating access under the Code takes an unnecessarily long amount of time.
- **Uncertainty about requirements:** ambiguity means that the Code presents opportunities to game the negotiation process or go to court to dispute whether certain provisions have been met.
- **Uncertainty about negotiation outcomes:** both access seekers and railway owners have submitted that negotiating under the Code is unattractive due to the uncertainty about what an arbitrated outcome would look like.
- **Unsuitability of light touch regulation:** light touch regulation does not work well when parties are already in a position where they cannot reach a commercially negotiated agreement.
- **Insufficient protections for railway owners:** railway owners are not protected from having to spend time and money on frivolous access requests.
- **Inefficient pricing guidance for negotiations:** the asset valuation methodology and the resulting floor and ceiling do not necessarily ensure that railway owners cover their incremental costs or prevent them from earning monopoly profits. These unrealistic price limits hinder the efficacy of negotiations.

Recommendations

Having considered stakeholder feedback on how the problems of the Regime can best be addressed, the Government has developed the final recommendations summarised in the table below.

It is considered that these recommendations will strengthen the Regime, while improving its flexibility in effectively working for Western Australia's diverse railways. It will also make negotiating access agreements more timely, efficient and transparent. A cost benefit

analysis on the proposed changes to the pricing mechanisms of the Regime (recommendations 1 and 2) was commissioned, which indicates that these changes alone would provide a net benefit of between $21 million and $36 million over 20 years. This is primarily due to allowing projects that rely on rail access to begin operations earlier, as well as reducing negotiation costs (see Appendix 4 for the full cost benefit analysis).

Issue	Recommendation Summary	
Pricing mechanisms	1A	Change the asset valuation method to depreciated optimised replacement cost (DORC) and align the floor and ceiling cost calculations to a building block method with an initial DORC valuation.
	1B	Introduce a trigger to determine when railway owners will have to comply with the main regulatory obligations associated with the DORC method.
	1C	Allow for flexibility in the assessment of historical depreciation to manage transitional impacts on existing railway owners, for a maximum of five years.
	2	Require railway owners to publish a standing offer for defined rail tasks when required by the ERA.
Ability to opt out	3	Extend the requirement in s.16(1)(b) of the Code to not unfairly discriminate between proponents to access agreements made outside the Code.
	4	Allow access seekers who have begun negotiations outside the Code to fast-track the process to arbitration under the Code.
Extensions and expansions	5A	Make both parties responsible for assessing whether an expansion is required to facilitate an access request when a proposal for access is made.
	5B	Place responsibility on the railway owner for demonstrating if an extension or expansion is technically feasible.
	5C	Remove the requirement to demonstrate technical feasibility as a pre-requisite to beginning negotiations and clarify that a request for an extension or expansion can be made at any time during negotiations if necessary to facilitate the access request.
Efficiency of the regulatory process	6	Insert a provision to allow a railway owner to refer an access request to the arbitrator if they can establish a prima facie case that it is frivolous.
	7	Insert timeframes for obligations under the Code where these do not already exist.
	8A	Require the ERA to approve a standard access agreement for each railway owner and for this agreement, along with other relevant information to be published on a railway owner's website, instead of in hard copy format.
	8B	Implement Recommendation 8 from the 2015 ERA review, to reduce the prescribed time limit for updating this information from two years to one year.

Issue		Recommendation Summary
	9	Standardise the information required to be provided by the access seeker under sections 8 and 14 of the Code.
	10	Standardise consultation across all Part 5 instruments.
	11	Provide for an arbitrator to make an interim order on access prices, terms and conditions if parties have an agreement that is expiring and are renegotiating under the Code.
	12	Allow parties to choose an arbitrator.
Railway owner accountability	13	Include requirements to publish service quality indicators.
Regulator accountability	14	Provide more upfront direction to the ERA and require the ERA to obtain two expert reports for the initial decision on the regulatory asset value if the first expert report differs significantly to the railway owner's proposal.
Transparency	15	Allow for the arbitrator to use their discretion in deciding if determinations should be made public or kept confidential, having regard to submissions by the railway owner and access seeker.
	16	Allow for the regulator to use their discretion in deciding whether information submitted to them should be kept confidential, having regard to submissions by the relevant parties.
Greenfield developments	17	Amend the Code to explicitly allow for differential treatment of foundation customers as a form of 'fair' discrimination.
Consistency with National Access Regime	18	Align some of the declaration criteria in the WA Rail Access Regime with those in the National Access Regime.
Previous ERA reviews	Appendix 2	A set of smaller administrative changes to the Code previously recommended by the ERA.

1. Purpose and scope of this paper

1.1. Purpose

The State Government has been reviewing the Western Australian Rail Access Regime (the Regime) to consider how it should be improved, so as to better achieve its objective of encouraging the efficient use of, and investment in, railway facilities by facilitating a contestable market for rail operations. This paper presents recommendations for improving the Regime and discusses the options that were considered in arriving at these recommendations.

In considering how the Regime can better achieve its objective, underlying goals have been developed that target that broader objective. These are as follows:

- a successful negotiation within the Regime should result in efficient access prices that reflect what would be achieved in a competitive market for rail facilities, allowing for an appropriate return on investment for railway owners;
- the Regime should enable access seekers and railway owners to arrive at a commercially negotiated agreement that reflects the terms, conditions and risks specific to their access arrangements; and
- the Regime should maximise the efficiency of the regulatory process, aiming to reduce the net cost of the Regime by reducing the time and money that railway owners, access seekers and the Regulator spend in applying the Regime.

In addition to these goals, the Government has considered whether any of the proposed changes to the Regime could affect the likelihood that the Regime will be re-certified as an 'effective' access Regime by the Commonwealth Treasurer in accordance with the 1995 Competition Principles Agreement. Although the Regime was certified from 2011 to 2016, this certification expired. The Government will consider applying for re-certification once this review of the Regime is complete.

1.2. Application of the Regime

The Regime is established by the *Railways (Access) Act 1998* (the Act) and the Railways (Access) Code 2000 (the Code). The object of the Act is '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.' It does this by:

- providing for the establishment of a Code governing the use of certain facilities for rail operations by persons other than their owners;
- conferring on the Economic Regulation Authority monitoring, enforcement and administrative functions for implementing the Code; and
- specifying the kind of arrangements that railway owners are to have in place for the purposes of that implementation.

The Code must give effect to the Competition Principles Agreement (CPA) in respect of the railways to which the Code applies and must prescribe which parts of the railway network and associated railway infrastructure are to be made available for use by parties other than the railway owner. Agreements for access under the Code can be reached through negotiation between a railway owner and an access seeker or through a determination by an arbitrator in the event of an access dispute. The Code must also set out the required content

of such agreements or determinations and the rights, powers and duties that apply through the negotiation and implementation processes.

A diagram of the current regulatory process under the Code is provided at Appendix 1.

The Regime covers the rail networks that are specified in Schedule 1 to the Code, which currently includes:

- Arc Infrastructure's freight network;
- The urban network; and
- The Pilbara Infrastructure's (TPI) network.

Roy Hill's Pilbara railway is also covered by the Regime pursuant to the *Railway (Roy Hill Infrastructure Pty Ltd) Agreement Act 2010*.

The Regime does not cover the heavy haul Pilbara railways owned by BHP Billiton Iron Ore and Rio Tinto Iron Ore.

1.3. Review process

The Economic Regulation Authority (ERA) is required to review the Code every five years, to assess the suitability of the provisions of the Code to give effect to the CPA in respect of railways to which the Code applies. The ERA completed reviews in 2005, 2011 and 2015. While changes were made to the Code in response to the 2005 review, no changes have been made in response to the 2011 and 2015 reviews.

The review of the Regime has considered the recommendations of these previous ERA reviews, while also covering a broader range of issues. Some minor changes that were recommended by the 2011 and 2015 ERA reviews will be implemented as part of this review process. These recommendations are listed at Appendix 2.

In July 2017, an Issues Paper was released to canvass stakeholder views on the problems that had been identified with the Regime and some options for addressing them. By November 2017, 14 public submissions were received in response. In December 2018, a draft decision paper was released with 16 recommendations. Submissions were open until March 2019 and 15 public submissions were received. All papers and submissions are published on the Department of Treasury's website.

Throughout the review, the Government has met with stakeholders to understand their views in more detail and has held several workshops to discuss options for improving the Regime. Meetings have involved the Department of Transport, the Department of Jobs, Tourism, Science and Innovation, and the ERA. The information provided by stakeholders during this review has been vital to developing the recommendations that are presented in this paper.

2. Asset valuation

2.1. Problem

The Regime provides for the railway owner and the access seeker to negotiate on an access price within floor and ceiling limits. The purpose of the floor and ceiling limit is to ensure prices are within the bounds of what can be considered economically efficient – that is, the ceiling seeks to prevent monopoly profits and the floor seeks to ensure the railway owner recovers its marginal costs. The use of a floor and ceiling to determine minimum and maximum access prices is similar to arrangements under other Australian access regimes. However, most other rail access regimes are more prescriptive about how prices should be set between these limits and the Regime is unique in its use of a gross replacement value methodology (GRV) as the basis for asset valuation that informs the floor and ceiling.

While some stakeholders have commented that the current asset valuation approach is suitable for achieving the objectives of the Regime, others have raised concerns that the current asset valuation methodology often does not reflect the costs that are incurred by railway owners and provides railway owners with an opportunity to earn monopoly profits.

It is considered that while the GRV methodology is likely to prevent duplication of infrastructure, it does not prevent prices from exceeding the efficient cost of providing access to the infrastructure (including a competitive return on investment). This means the GRV methodology does not target the objective of the Regime to ensure access prices reflect what would be achieved in a competitive market for rail facilities.

Stakeholders have also commented that the floor and ceiling obtained under the GRV approach do not provide realistic guidance for negotiations and lead to uncertainty about the likely access price. This is because the GRV methodology assumes assets are in 'as new' condition and as such the capital costs assigned under GRV do not reflect the asset's current condition or the economic value a user may expect to extract from the asset. The assumption of 'as new' condition also means that the operating costs used in the floor and ceiling limits may bear little resemblance to the actual costs the access provider incurs, given the age and condition of the assets.

The current GRV pricing approach is particularly not well suited to facilitating access for older freight routes as in these cases the actual costs incurred depart more markedly from the floor and ceiling limits calculated under a GRV approach. The ceiling costs do not reflect actual costs primarily because they do not account for changes in the return on asset or depreciation as the asset ages. The floor costs do not reflect actual costs because they do not account for increasing operating and maintenance costs as the asset ages, meaning they may be lower than appropriate. This means that negotiation within the Regime for access to marginal freight routes is likely to be more difficult than for routes that are in better condition.

The current methodology is also not well suited for negotiations that involve an extension or expansion and may not provide adequate incentives for efficient investment. Under the current approach, the total cost is calculated prior to the expansion or extension and then the cost of the expansion/extension is negotiated separately. Any future valuation of the asset will reflect the expanded asset, however, this will not necessarily reflect the actual cost of the extension or expansion. This is because the asset will be valued as a whole and assuming it is entirely a new asset, while in reality, the extension or expansion may have been applied to an older asset and therefore may have been more costly than reflected in the regulatory value.

Additionally, the National Competition Council (NCC) raised some concerns with the GRV methodology when they assessed the Regime for certification as an 'effective' regime in 2010.[1] While GRV was not deemed to preclude certification, the NCC did have some concerns about the inconsistency between the asset valuation methodology in Western Australia compared to other jurisdictions.

2.2. Options considered

Five options were considered for the asset valuation methodology:

1. Status quo – GRV;
2. Building block methodology with an initial 'line in the sand' valuation;
3. Building block methodology with an initial depreciated optimised replacement cost (DORC) valuation;
4. DORC with trigger to determine when some obligations are implemented; and
5. Transitional arrangements for change in asset valuation.

2.3. Assessment and recommendation

2.3.1. Status quo – Gross Replacement Value

The GRV approach sets the whole of life average annual capital cost as if the infrastructure service was provided by assets that would be used if the network was constructed today, with operating and maintenance costs also set on this assumption.

In applying this methodology, the assets are valued as the gross replacement value of the Modern Equivalent Asset (MEA) (or other replacement value basis as the regulator considers appropriate) at the time an access proposal under the Code is made. It is not revalued until a new access proposal is made, unless the regulator considers there has been, or may be, a material change from the circumstances that existed at the time the original determination was made.

The ceiling price for a route based on the GRV methodology is calculated as the sum of:

- capital costs, which are calculated as an annuity where:
  - the 'principal' is the gross replacement value of the assets;
  - the 'interest rate' is the weighted average cost of capital, expressed in real terms;
  - the 'term' is the expected useful life of the assets (economic life), as set out in the railway owner's costing principles; and
- operating costs, including maintenance costs and other operating costs, which are estimated on an average whole-of-life basis.

The floor price is assessed as the unavoidable component of the operating and maintenance costs on a route, where operating and maintenance costs are also assessed on a whole-of-life basis.

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[1] National Competition Council, *Western Australian Rail Access Regime – Application for Certification as an Effective Regime – Final Recommendation,* paragraphs 9.21 – 9.31, 13 December 2010. Available at: http://ncc.gov.au/images/uploads/CERaWAFR-001.pdf [accessed 8 October 2018]

Assessment

As discussed above and summarised in Table 1 below, the GRV methodology does not adequately achieve the objectives of the Regime and does not provide effective guidance for negotiations, particularly where older lines are concerned.

Consideration has been given as to whether the GRV methodology could be modified to address the issues that have been identified, but it has been found that a DORC methodology offers a more feasible way to address these issues (discussed further in section 2.3.2). It was found that it was difficult to amend the GRV approach to adequately account for the condition of the railway in the asset valuation, and subsequently more closely reflect the railway owner's actual costs in the floor and ceiling, without arriving at an asset valuation and floor and ceiling methodology similar to a DORC.

Table 1: Summary of costs and benefits: Gross Replacement Value methodology

Benefits	Costs
Low level of regulatory and compliance burden for the access seeker and the regulator, as a valuation is only done when an access proposal is made, and information about the GRV of a railway is relatively simple to obtain.	The ceiling does not necessarily reflect the asset's current condition or the economic value a user may expect to extract from an asset, and therefore allows for monopoly profits in some instances. This can compromise efficacy of negotiations where the ceiling does not reflect what could be achieved in a competitive market for rail facilities.
The ceiling represents the bypass cost and it therefore prevents inefficient duplication of infrastructure.	The floor price may not cover real operating and maintenance costs for lines that are nearing the end of their useful life and is therefore not an economically efficient cost and does not assist negotiations, particularly for older lines that have not been well maintained.
Wide range between floor and ceiling price provides a high degree of flexibility for commercial negotiation.	Uncertainty about the ceiling over time (because it is re-assessed based on the current value of modern equivalent infrastructure when a proposal is made) can introduce uncertainty for when an agreement has to be re-negotiated or when a potential access seeker is considering a future access application.
	Where an asset is expanded, the actual expansion costs may be significantly higher than the resulting increase in GRV. This may constrain an infrastructure provider from recovering the full expansion costs in access charges, which may discourage investment.
	Where access negotiations fail to achieve an outcome, the floor and ceiling prices do not necessarily provide useful guidance to the arbitrator.
	The GRV approach is not consistent with other access regimes and may create additional regulatory burden for parties operating across jurisdictions.

Recommendation

It is considered that the costs of the GRV methodology substantially outweigh its benefits and as such, Treasury does not recommend retaining the GRV methodology.

2.3.2. Building block with a 'line in the sand' valuation

The 'line in the sand' (LIS) approach is not used in any rail access regime in Australia. However, there is some precedent in applying a LIS approach to water infrastructure. These different applications of LIS have been used as a basis for considering it as a potential alternate option for the asset valuation in the Regime.

Under the LIS approach, the initial regulatory asset base (RAB) value reflects the net present value (NPV) of current net revenues. This is similar to a commercial valuation, although such an approach would normally incorporate upside potential in the asset valuation to reflect future opportunities, which the LIS does not.

The RAB value is then rolled forward and the floor and ceiling are calculated in the same way as for the DORC approach discussed below, except with a different opening asset value used to assess the ceiling price.

Assessment

Although this option has some advantages, such as reducing uncertainty about future valuations of the ceiling and allowing the floor to reflect the actual costs incurred by the railway owner, it does not address most of the deficiencies of the current asset valuation approach, and also introduces some additional costs (see Table 2). Most notably, this option prevents the railway owner from capturing the benefits of increased utilisation of the route and, in doing so, is contrary to the objectives of the Regime of encouraging efficient use of and investment in rail facilities.

Table 2: Summary of costs and benefits: line in the sand methodology

Benefits	Costs
Avoids uncertainty about future valuations of the ceiling, since the initial RAB is 'locked in' when first calculated.	Does not ensure access prices reflect what would be achieved in a competitive market for rail facilities.
The floor price will include all forward looking costs of providing the route, including maintenance costs (given actual condition), major periodic refurbishment and necessary asset renewal. This is consistent with setting a floor price that constrains clearly inefficient pricing.	By setting a ceiling price to reflect the NPV of the current net revenues on a route, this option prevents the railway owner from gaining benefit of increased utilisation of the route. This is likely to disincentivise the efficient use of and investment in the asset.
Presents better investment incentives by including actual expansion costs in cost determinations.	The ceiling under LIS may not assist negotiations because it may not reflect the asset's current condition or the economic value a user may expect to extract from the asset.

Benefits	Costs
A regulatory valuation of the asset will not have to be completed when an access proposal is made, which will expedite the process for an access application to be dealt with.	Creates a requirement for a new regulatory process to develop and maintain RAB values across the rail networks.
	The LIS value will be dependent on confidential information relating to access agreements negotiated outside the Code.
	Is not consistent with other access regimes and may create additional regulatory burden for parties operating across jurisdictions, as well as providing little regulatory precedent to guide the valuation methodology.
	The Costing Principles will have to be amended to align with the LIS method.
	Provides less flexibility in negotiations than the GRV method by providing a narrower range of possible prices between the floor and ceiling.
	Where access negotiations fail to achieve an outcome, the floor and ceiling prices do not necessarily provide useful guidance to the arbitrator.

Recommendation

Using this asset valuation methodology to value railways in Western Australia is not recommended, as it is not aligned with the objectives of the Regime and does not address existing deficiencies in the asset valuation methodology.

2.3.3. Building block with DORC

In its 2015 review of the Regime, the ERA recommended amending the asset valuation methodology to explicitly include depreciation in the opening value of the asset, in the form of an 'established asset base'.

Most other Australian rail access regimes or undertakings use a DORC method for calculating depreciated asset values. In these regimes, the DORC value is used as the basis for a building block calculation of allowable revenue, which includes recovery of operating costs, as well as return on and of capital.

Under this approach, a regulatory asset base established using the DORC method would be used as an input into developing the floor and ceiling costs for each segment of the network as follows.

Total cost

The total cost (i.e. the upper revenue limit) would be calculated for each year of an access proposal (and each route relevant to the access proposal) and would include:

- annual capital costs, which would be based on the forecast regulatory asset base (RAB) for each year and be calculated as:
  - asset depreciation; plus
  - return on assets, assessed using the weighted average cost of capital; less
  - asset indexation.
- annual operating costs, including:
  - maintenance costs, estimated as the efficient cost of maintaining the asset given its actual age and condition;
  - other operating costs; and
  - tax costs.

Incremental costs

The incremental cost would be calculated for each year of an access proposal and would be set with reference to the forecast incremental cost of continuing to provide the asset over the required term of access, including the annual avoidable elements of:

- the capital costs, being those that are attributable to avoidable asset renewal and asset expansion; and
- the operating and maintenance costs that are used to determine the total cost.

Assessment

Compared with the status quo, the DORC methodology is more likely to result in access charges that reflect what would be achieved in a competitive market. This is because the ceiling costs will reflect the actual service potential of the railway, while also including a competitive return on investment, and the floor price will include all forward looking costs of providing access to the route, including maintenance costs, major periodic refurbishment and asset renewal.

While the range between the floor and ceiling may reduce, particularly for older lines that have not been maintained in as new condition, this approach will still allow for commercial negotiations between a range of economically efficient prices that reflect the condition and cost of running the asset.

Although the DORC approach will create some additional costs compared to the current approach, it is considered that these costs are likely to be substantially outweighed by the additional benefits that the DORC approach will provide. As discussed further in section 4, a cost benefit analysis of the proposed changes to the pricing mechanisms (including implementing a DORC methodology and introducing standing offers (section 3.3.3)) indicates that the changes are estimated to generate a NPV benefit of between $21 million and $36 million over 20 years.

The DORC methodology was also assessed in the Independent Pricing and Regulatory Tribunal's (IPART) report 'Aspects of the NSW Access Regime' which examined, amongst other things, the asset valuation methodologies available to value railways. IPART recommended DORC as the most reasonable valuation methodology for ceiling tests under

the NSW Rail Access Regime.[2,3] In the Productivity Commission's submission to the NCC's review of the Regime, they note this view from IPART and suggest the NCC encourage an approach in Western Australia that will facilitate greater consistency across jurisdictions.[4]

Some infrastructure owners expressed concerns about the profile of a declining DORC ceiling not matching the profile of expected access revenue. However, a DORC ceiling will generally only decline (or in the case of existing railways, start lower than the GRV ceiling) where investments are not made in asset renewals as components of the railway reach the end of their useful life. Where there is efficient investment to maintain or extend the life of a railway, this expenditure will be rolled into the RAB or included in the ceiling as part of the operating and maintenance charge (depending on the nature of the expenditure and the construction of the RAB) and this will raise the level of the ceiling to reflect the investment and subsequent improved standard of the railway. If the ceiling has declined due to an asset nearing the end of its life and asset renewal not occurring, it is expected that commercial negotiations would have resulted in a price that reflects the state of that asset in any case.

Concerns have also been raised about the risk of asset stranding if a depreciation profile for a particular investment is agreed with an access seeker and approved by the ERA, but then the access seeker is unable to carry out the full term of their access agreement. It is considered that this is a commercial risk that would arise under any valuation methodology and that negotiations between railway owners and access seekers should address this risk. Under DORC, alternative depreciation profiles (e.g. accelerated depreciation) will be available to address stranding risk and it therefore offers more opportunities to address this than under GRV.

Some access seekers suggested using depreciated actual historical cost as the basis for establishing the initial depreciated asset base (rather than the depreciated optimised replacement cost). However, it is considered that while this would ensure that the railway owner is compensated for past investments, it would not fulfil the intent of the Code to derive an economic value for rail assets, and there would be practical difficulties in implementing it. For example, it is possible that past investments may not have been efficiently incurred. However, it is difficult to determine if they would have been deemed efficient at the time and therefore a decision on whether to exclude them in hindsight is challenging.

The extent to which the DORC approach set out in this section aligns with the ERA's established asset base (EAB) approach as recommended in their 2015 Code review has also been considered. In the final report, the implementation of an EAB was not explained in detail, however, the ERA stated:

> "a rolled forward asset value, incorporating depreciation, would reflect the written down value of the route rather than the replacement value. The use of a rolled forward capital value for assets within a negotiate-arbitrate regulatory framework

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2 Independent Pricing and Regulatory Tribunal of New South Wales, *Aspects of the NSW Rail Access Regime,* April 1999. Available at: https://www.ipart.nsw.gov.au/files/sharedassets/website/trimholdingbay/ipart_final_report_-_aspects_of_the_nsw_rail_access_regime_-_29_april_1999_pdf_version.pdf

3 While they cautioned that this report was specifically written for the NSW rail assets, many of the principles they are seeking to achieve through the floor and ceiling tests are similar to the WA regime.

4 Productivity Commission, *Productivity Commission Submission to the NCC's Review of the WA Rail Access Regime,* n.d. Available at: https://www.pc.gov.au/research/supporting/wa-rail-access/warailaccess.pdf

> would represent a move part-way along the continuum between light and heavy handed approaches. Such an approach allows negotiations to occur, but better reflects the value of the asset in negotiations, by prescribing an upper limit to price negotiations which takes explicit consideration of the depreciation of the asset."[5]

It is acknowledged that the ERA, in their recommendation, did not consider the determination of total costs based on an EAB (and incorporating projections of capital expenditure, depreciation and operating amounts) over a fixed period was warranted, as it would involve an unnecessary increase in prescriptiveness. However, it is considered that in order for the depreciated asset base and actual costs incurred by the railway owner to appropriately inform the negotiating range for a given access proposal, these should be calculated for each route relevant to an access proposal for the period of that access proposal. As detailed later in this section, that does not preclude the use of an annuity approach to smooth depreciation cash flows, as suggested by the ERA when recommending the use of an 'established asset base'.

Table 3: Summary of costs and benefits: Depreciated Optimised Replacement Cost methodology

Benefits	Costs
The ceiling will more closely reflect the service potential and actual costs incurred by the railway owner given the condition of the asset, which should assist negotiations by providing more realistic guidance on the maximum price.	Creates a requirement for a new regulatory process to develop and maintain RAB values across the rail networks. Determining the initial DORC value will be particularly costly.
The floor price will include all forward looking costs of providing the route, including maintenance costs (given actual condition), major periodic refurbishment and necessary asset renewal. This is consistent with setting a floor price that constrains clearly inefficient pricing and will assist with negotiations, particularly for older lines that have not been well maintained.	The Costing Principles will have to be amended to align with the DORC method.
Avoids uncertainty about future valuations of the ceiling, since the initial RAB under DORC is 'locked in' when first calculated and then updated each year to reflect depreciation and efficient investment in the asset.	Provides less flexibility in negotiations than the GRV method by providing a narrower range of possible prices between the floor and ceiling.
Presents better investment incentives by including actual expansion costs in cost determinations (including efficient project management costs).	Changing the asset valuation methodology may affect the expected revenue earning opportunity of some existing infrastructure owners, who invested on the basis of the existing regulatory framework. However, this will be mitigated through transitional arrangements.

[5] ERA, Review of the Railways (Access) Code 2000, February 2015, paragraph 128.

Benefits	Costs
Where access negotiations fail to achieve an outcome, the floor and ceiling prices provide more useful guidance to the arbitrator, as they reflect the condition of the asset.	There may be less flexibility for railway owners to manage access prices over time under a DORC ceiling, however, this will be addressed through under-recovery provisions.
Offers consistency with other rail access regimes and extensive regulatory precedent to guide the application of the methodology.	
A regulatory valuation of the asset will not have to be completed when an access proposal is made, which will expedite the process for an access application to be dealt with.	

Recommendation

In summary, due to the more accurate estimates that this methodology provides regarding the permissible range of economically efficient prices, and the improved investment incentives it presents, it is considered that the DORC method is the option most likely to achieve the objectives of the Regime and offer net benefits.

Recommendation 1A – Change the asset valuation method to DORC and align the floor and ceiling cost calculations to a building block method with an initial DORC valuation.

How this would be implemented

Firstly, a RAB would be calculated for each railway owner (and each route listed in Schedule 1 of the Code) using the DORC methodology. This would be fairly straight forward for new railway assets and more complicated for existing railway assets, as outlined below. Secondly, a depreciation profile would need to be established (and approved) to allow the RAB to be initially determined and then be rolled forward on an annual basis.

This depreciated asset base would then be used to determine the total and incremental costs that railway owners and access seekers can negotiate between for any given access proposal.

The Government intends to develop guidance about some more detailed aspects of DORC implementation in consultation with stakeholders. This may include how different types of contributed capital should be treated in the initial asset valuation, how to value assets that have indefinite lives or have reached the end of their expected useful life, how assets could be bundled to develop a RAB, the types of depreciation suitable in different circumstances or types of assets, how the efficiency of capital and operating expenditure will be assessed on different types of railways, what records the railway owner must maintain and provide, and how the transitional arrangements will be implemented (see section 2.3.3). However, the main elements of implementing the DORC methodology are described below.

Calculating the RAB – new railway assets

Calculating the initial RAB would be reasonably straightforward for new railway assets (i.e. those that may be built in the future and covered under the Code). Provided they have been built efficiently, the construction cost of the assets would be taken to be the optimised replacement cost. Given the assets are new, there would be no need to assess how

depreciated the assets are. Therefore, the construction cost of the railway would be taken as the initial RAB value.

Calculating the RAB – existing railway assets

In order to establish a RAB, the optimised replacement cost and historical accumulated depreciation of segments of the railway would need to be calculated. How a railway is segmented or broken down for the purposes of establishing the RAB would be unique to each railway owner, who would propose a method for approval by the ERA based on the characteristics of their network.

This then requires calculating the efficient cost of replacing existing assets with an optimal mix of modern equivalents. Doing this would be comparable to the current process that is used to determine the GRV – it would require the railway owner to assess existing assets, optimise the network to meet current and future expected demand, determine the modern equivalent asset specification that would meet this demand (assuming the existing route and gauge specification are already efficient) and determine the replacement cost for this.

Once that is calculated, the remaining life of the asset would be established and a depreciation profile would be applied. In cases where an asset has already reached the end of its expected life (where this was previously established) that asset could not be included in the RAB (unless new investment was made). Depreciation could be assessed by either:

- measuring the extent of physical asset deterioration from new condition; or
- assessing consumption of economic benefits to date (e.g. using straight line, economic (annuity), units of production or other recognised depreciation methodology).

The most common method used in other access regimes is to assess depreciation using straight line depreciation over the physical life of an asset, which spreads the depreciation cost evenly over the life of the asset. However, the application of straight line depreciation may not be optimal for existing railway owners as they transition from calculating ceiling prices using the existing GRV methodology to the DORC methodology. A proposal for managing the transitional impacts of this on railway owners through using an alternative depreciation profile has been developed, as detailed in the transitional arrangements section below.

Calculating ongoing depreciation (new and existing railway assets)

Railway owners would be required to put forward a depreciation profile for the remaining life of the asset as part of the roll forward process. For existing railways, this depreciation profile may be, but provided there is no double counting, does not need to be the same as that which was used to assess historical depreciation. For new railways this will need to be established for the first time.

If a railway owner wishes to change from the depreciation profile previously used, they would be required to explain their reasons for deviating from the previous depreciation profile and how they will avoid double counting. The regulator would assess each proposal on its merits, assessing the reasonableness of the claims and proposed depreciation profile and considering the legitimate business interests of the railway owner, as well as current and potential users of the railway.

Changes in asset life or depreciation profile

Any changes to the forward looking depreciation profile or remaining asset life should not have any impact on the net present value of the asset, however, it would change the timing of future depreciation charges for the asset. As such, the impact on the incremental and total costs, and therefore on current and potential users of the railway, must be considered.

Changes in asset life and subsequent changes to the depreciation profile could be proposed to the ERA at the time of a RAB review, which could be every 5 years or when an access proposal is made (this is discussed further under 'process' below). These would be assessed by the ERA in the same way as a request to use a non-standard depreciation profile would be (as outlined above).

RAB roll-forward

The railway owner would maintain an up to date estimate of the asset value by rolling forward the RAB every year. This would use the approved RAB value as a starting point and would require the following items to be calculated for each year:

- asset indexation (added);[6]
- capital expenditure, including both asset renewal costs and expansion costs (added);
- depreciation based on the asset lives and depreciation methodology accepted by the ERA (deducted); and
- asset disposals (deducted).

If an access proposal was made, at that time it would also be necessary to develop a forecast RAB for each year of the access proposal, so that it could be used as an input into assessing the incremental and total costs.

The roll forward would be assessed by the ERA every 5 years, who would carry out an ex-post assessment of efficiency.

Railway owners would be required to publish an annual update to their RAB on their website in a format that is easily accessible by stakeholders. This would improve transparency for access seekers regarding expenditure that affects access prices and service quality and would mitigate potential information quality and data availability issues at the five yearly reviews. There will be some additional administrative burden associated with publishing the roll forward. However, this is unlikely to be significant as the railway owner would have had to prepare this information in a manner suitable for submitting to the regulator for publication at some point in any case.

This annual update to the RAB would not be audited by the ERA at that time, nor would stakeholders be given any rights under the Code to object to the railway owner's expenditure; this would only occur at the 5-yearly review or when an access proposal was made. Railway owners would not be required to publish information that is genuinely confidential, just as they would not be required to do so once the ERA reviews the RAB roll forward at the 5-yearly review. It is not currently proposed to introduce any process for ensuring railway owners adequately assess what information is confidential when publishing the updated RAB each year. It is considered that railway owners would have enough guidance from the initial determination by the ERA, and the confidentiality guidelines, as to what information is

[6] It will be up to the ERA to determine, in consultation with stakeholders, whether the RAB should be escalated by the Consumer Price Index (CPI) or a different measure.

reasonable to declare confidential. However, an oversight mechanism may be introduced if the information that railway owners declare confidential when publishing the annual roll forward is later deemed non-confidential by the regulator in the 5-yearly review.

Under-recovery mechanism

The inclusion of an under-recovery mechanism in the DORC model to address the potential reduced flexibility for the railway owner and access seeker to agree on how access prices will change over time is proposed. This would allow the railway owner and access seeker to agree on alternative glide paths for prices across the life of an access agreement that may otherwise cause a breach in the ceiling test.

Examples where this could be beneficial could include:

- Where a new access seeker commences and their levels of production are subject to a ramp up period, meaning their capacity to pay over time will increase.
- Where there is an existing access seeker producing a commodity and the commodity price drops substantially.

Within an individual access agreement, parties would be able to agree on a time path of prices that would meet the requirements of the ceiling test ('standard price path'), but also to agree on an 'alternative price path', provided the total sum recovered by the railway owner over the term of the access agreement was not more under the alternative price path. For the purposes of assessing the ceiling test, the regulator would consider the 'standard price path' access price for each relevant year. This would only be necessary where a railway owner's revenue on a particular route was close to the ceiling.

For clarity, it is not proposed that this would be an automatic right of the railway owner under the Code. This would be something that would be allowed for under the Code, but its inclusion in an access agreement would have to be agreed on by the access seeker and railway owner, as part of their negotiations under the Code. It is also not proposed to include 'triggers' in the Code that would prompt access prices to be increased or decreased under this mechanism, as we consider the mechanism for this is best decided between the parties to the agreement based on the market the access seeker is operating in.

This proposal does not assume that a railway owner is entitled to earn up to the ceiling at any particular point in time, or that the railway owner can capitalise 'losses' (unrecovered amounts) as a matter of course. However, it does allow for more flexibility in the path for access prices over time for a particular access agreement where revenue is close to the ceiling limit.

Process

As discussed above, the main difference between calculating a RAB using a DORC methodology and the current GRV approach is in calculating the remaining life and applying depreciation. It is considered that the process in the costing principles to determine the optimised replacement cost would not vary from the process to determine GRV in any material way.

Once the initial RAB has been determined, the railway owner would be required to roll forward the asset value each year as discussed above. However, the ERA would only review the roll forward every five years (to coincide with its current 5-yearly review of the WACC), or when an access proposal is made under the Code. This would involve an ex-post assessment of efficient capital and operating expenditure.

The process for calculating the floor and ceiling during an application would remain largely unchanged from what exists under the Code at the moment, with incremental and total costs only being calculated when there is an access proposal, or where the regulator thinks one is likely.

Establishing the capital costs is likely to be somewhat simpler than the current process, as there would be an established RAB value and depreciation profile for these assets, although it would also be necessary for the railway owner to forecast, and the regulator to assess, asset renewal and expansion costs.

However, assessing forecast operating and maintenance costs is likely to be more information intensive than currently, as it would need to have regard to the current condition of assets and the actual operating and maintenance costs, rather than assessing it from a theoretical whole-of-life perspective. Nevertheless, it would be expected that the railway owner would maintain forecasts of these costs as part of its asset management plans and therefore the information should be available at the point when an access request is made.

The new regulatory processes associated with the DORC method are detailed in Table 4 below.

Table 4: Process for determining DORC and roll forward

Task	Steps	What would be published*
Update costing principles	• Railway owner updates costing principles to reflect change to DORC (including proposal about how the RAB will be rolled forward each year) • ERA invites submissions from stakeholders • ERA releases draft decision paper on proposal • Stakeholders make submissions on draft decision paper • ERA approves or amends costing principles	• Railway owner proposal • ERA draft decision paper • Submissions • ERA final decision paper • Approved costing principles
Calculate initial DORC/RAB *(once-off step)*	• Railway owner submits proposal on optimised replacement cost and accumulated depreciation • ERA releases relevant information and invites submissions from stakeholders • ERA obtains an independent report to inform its decision • ERA obtains a second report if necessary (see recommendation 14) • ERA releases draft decision paper • Stakeholders make submissions on draft decision paper • ERA releases final decision paper	• Railway owner proposal • ERA draft decision paper • Consultant reports • Submissions • ERA final decision paper
Calculate RAB roll forward (including ongoing	**Each year** • Railway owner is required to calculate the RAB roll forward every year in accordance with approved costing	**Each year** • Railway owner roll forward (not assessed by ERA)

Task	Steps	What would be published*
depreciation profile) *(initially and then every 5 years)*	principles, but it is only assessed by the ERA every 5 years (or when an access proposal is made) **5-yearly reviews** • Railway owner submits RAB roll forward • ERA releases relevant information and invites submissions from stakeholders • ERA makes ex-post assessment of the efficiency of operating and capital expenditure	**5-yearly reviews** • Railway owner roll forward • Submissions • ERA statement on compliance and final approved roll forward
Determine WACC	• No change to existing process	• No change to existing process
Calculate floor and ceiling	• Railway owner to submit forecast RAB and forecast efficient operating, maintenance and capital expenditure costs for the term of the proposal • ERA to review and procure advice if necessary • ERA releases relevant information and invites submissions from stakeholders • ERA releases draft decision paper • Stakeholders make submissions on draft decision paper • ERA issues final determination	• Railway owner proposal • Draft decision paper • Consultant reports • Submissions • Final decision paper

* commercial in confidence information redacted throughout

2.3.4. DORC with trigger to determine when regulatory obligations are implemented

During consultation, some stakeholders commented that where there are no access seekers operating on a particular route (inside or outside the Code), the costs of implementing a DORC methodology will be incurred, but the benefits will not be realised. The Government has considered whether this should be addressed by amending the Code such that the most onerous regulatory obligations are only operational where there are access seekers to benefit.

Specifically, consideration has been given to including a trigger in the Code that would determine whether, for a particular railway, a railway owner would be required to develop a RAB and then keep it up to date and submit it to the ERA for review every five years. Railways where there are existing users (in addition to the railway owner) or where an access seeker is in negotiations with the railway owner for access would be immediately triggered. However, those railways where there are no access seekers would not have to meet the obligations until future access seekers triggered them.

Assessment

Government agencies and industry groups have been consulted to assess the benefits and costs of this option and found that there is considerable uncertainty.

On the one hand, there is a high likelihood that introducing such an exemption would provide benefits to some railway owners, namely those in the Pilbara, as there may not be any access seekers on the Pilbara railways for many years, if ever (although many stakeholders considered it was likely that at some point during the life of the railways someone would want access to the railways). However, the magnitude of these benefits would be relatively small, as the cost of developing a RAB for these railways is expected to be relatively low compared with larger, older rail networks, at around $550,000–$580,000 per railway owner (including both costs for the railway owners and for the ERA, which will be recovered from them, see the cost-benefit analysis at Appendix 4 for further details).

During consultation, Pilbara railway owners argued that it was very unlikely there would ever be an access seeker wanting to use the Pilbara railways because rail users typically preferred a haulage arrangement. They also argued that they would not be able to use the railway in any case because they would not be able to obtain port capacity. However, consultations with Pilbara Ports Authority indicate that access seekers should be able to obtain port capacity. They would likely need to build a spur line and their own stockpile area at the port and obtain approval from the port authority for these, but this approval could occur concurrently with environmental and other approvals required for the mine. This means that obtaining access to the port should not prevent access seekers from being able to use a railway. Nevertheless, it remains the case that there may never be any requests for access to rail (as opposed to haulage) for the Pilbara railways.

On the other hand, if there is a future request for access, there is the risk of substantial costs for the future access seeker if a trigger mechanism is introduced. The most substantial cost would be caused if future access seekers did not obtain access to the railway as soon as they need it because implementing the regulatory obligations took longer than the lead time for the access seeker's project. Although proponents of new mining projects would likely have 2-3 years from the time they had enough information to trigger the development of the RAB until they required final project approvals, it is reasonably likely that developing a RAB and then complying with the remaining regulatory process associated with an access request could take longer than three years. Examples from other regulatory regimes indicate setting a RAB could take between one and five years. The reason for these long and varied timeframes is not solely the time needed to calculate the value of the railway, which for many railways could be done in less than six months, but the likelihood of disagreements between the railway owner and regulator and the possibility of legal challenges.

In addition, after the RAB is set, the other regulatory steps needed to conclude an access agreement would take a minimum of 436 days, or around 14 months, assuming all timeframes in the Code were complied with. This could mean that in combination, the whole regulatory process may not be completed before the access seeker required an access agreement to be in place.

Even a small delay in obtaining access could have large costs for access seekers, as the value of resource projects is typically in the hundreds of millions of dollars. For example, the average value of planned new mining projects in the Pilbara as at December 2018 (excluding oil and gas projects and projects by Rio Tinto, BHP and FMG) was $1,257 million, ranging

from $50 million to $5,000 million[7]. Using a middle point value of $500 million and assuming a required rate of return of 7%, the cost of a one month delay would be around $2.9 million, or around $1.2 million if it is assumed capital can be put to an alternative use during that delay (such as paying down debt) at a rate of 4%.

It is difficult to compare a known but relatively small cost for railway owners against an uncertain but potentially much higher cost for future access seekers. However, given the uncertainty as to whether there will be any requests to access the Pilbara railways, it is considered preferable to avoid the costs for railway owners of complying with the regulatory obligations until there are access seekers. It is proposed to mitigate the risks that future access seekers will experience project delays by introducing an enforceable timeframe for railway owners to develop the RAB and establishing a clear process for obtaining approval of the RAB, to minimise disputes.

Table 5: Summary of benefits and costs: DORC with trigger

Benefits	Costs
If the obligations are never triggered on some lines, railway owners and the ERA would save the costs of developing the RAB for those lines. Even if the obligations are triggered at some point, there would likely be benefit from delaying expenditure in complying with them (as having a dollar today is generally preferred to having a dollar in the future).	There may be an increase in the cost to develop a RAB as a railway ages. This is likely to be modest for newer, more uniform railways and more substantial for older railways where asset condition is more variable.
Railway owners would also be able to avoid or delay expenditure on keeping the RAB up to date and having it approved by the ERA every five years.	May delay access negotiations if the development of the RAB takes longer than expected and it is not approved by the time an access request is put in. Although this could be mitigated to some extent through the ability to trigger obligations easily, enforcing timeframes on developing the RAB. In the case of mining projects, where the trigger is most likely to be applied, the longer lead times for project approvals also somewhat mitigate the risk of a delay.
	Potential access seekers may not trigger the obligations early enough because they are unaware of the ability to do so. Although this could potentially be mitigated through a communications strategy.
	There may be a disincentive for proponents to trigger the regulatory processes, as they would likely be expected to participate in submissions for developing the RAB and other instruments, incurring additional costs compared to the situation where these were already in place.

[7] Australian Government Department of Industry, Innovation and Science, *Resources and Energy Major Projects List*, December 2018.

Benefits	Costs
	However, this may usefully avoid frivolous requests.
	Parties seeking haulage arrangements would not obtain the information contained in a RAB that could be used to inform haulage negotiations (unless the RAB is triggered).

Recommendation

It is recommended that railway owners should not be required to comply with the main regulatory obligations associated with a DORC methodology unless there are likely access seekers to benefit from them. Along with a trigger to determine when the obligations have to be complied with, mechanisms should be introduced to reduce the likelihood of delays in complying with the obligations, once they are triggered.

Recommendation 1B – Introduce a trigger to determine when railway owners will have to comply with the main regulatory obligations associated with the DORC method.

How this would be implemented

A railway owner would be required to develop a RAB and then keep it up to date and submit it to the ERA for review every five years in the following situations:

1. Where a party was operating on a route or line (in addition to the railway owner), regardless of whether access had been agreed inside or outside the Code.
2. Where an access seeker was in negotiations with a railway owner for below rail access, either inside or outside the Code.
3. Where a future access seeker asked the ERA to require the railway owner to meet these obligations and the ERA considered an access request was likely.

The future access seeker could trigger these obligations by indicating to the ERA that they were interested in accessing a line and the ERA would then determine whether an access request was likely. If the ERA considered it was likely, it would be able to direct the railway owner to meet the above obligations. This is similar to the ERA's current ability to require a cost determination if it considers an access request is likely.

It is envisaged that this would not be an onerous process for the potential future access seeker, as its purpose is to ensure a RAB is developed ahead of a formal access request. Providing information such as an internal draft project proposal (or similar) would be sufficient for the ERA to consider whether the obligations should be triggered.

Several mechanisms would be introduced to ensure the RAB was developed in a timely manner. Firstly, a timeframe would be set for railway owners to submit their proposed RAB to the ERA. This timeframe would vary according to the length of the railway, to recognise the varying complexity in calculating a RAB for different railways. The Government will consult further as this provision in the Code is drafted, but this could, for example, involve two timeframes: six months to submit their RAB for owners of railways of less than 600km and 12 months for owners of railways greater than 600km. Penalties would be applicable for unwarranted delays.

Secondly, the ERA would publicly report on railway owners' compliance with the set timeframes and the quality of the information submitted by them to incentivise high quality and prompt proposals.

Thirdly, the process for obtaining ERA approval of the RAB and the consultation that the ERA would undertake would be explained in guidelines to minimise opportunities to claim procedural fairness had not been followed.

2.3.5. Transitional arrangements for change in asset valuation

The proposed move from GRV to a DORC methodology may affect the expected revenue earning opportunity of existing infrastructure owners, who invested on the basis of the existing regulatory framework. This is because for some routes, the starting asset value under a DORC approach may be lower than under a GRV approach, which would result in a lower ceiling. However, this will be partially offset through recognition of actual operating and maintenance costs, which will push up both the floor and ceiling, again particularly so for assets that are not in a new condition or well maintained.

Given this, consideration of the need for transitional arrangements has been taken into account using the following criteria:

- **Efficiency**: transition arrangements should target any impediments to efficient transition and help avoid potential market disruptions.
- **Equity:** the same assistance is provided to those who are in the same circumstances.
- **Fairness:** achieves a 'fair' outcome, considering whether the regulatory change causes an exceptional loss in the value of investments that cannot be, or has not been, otherwise recovered, or anticipated.

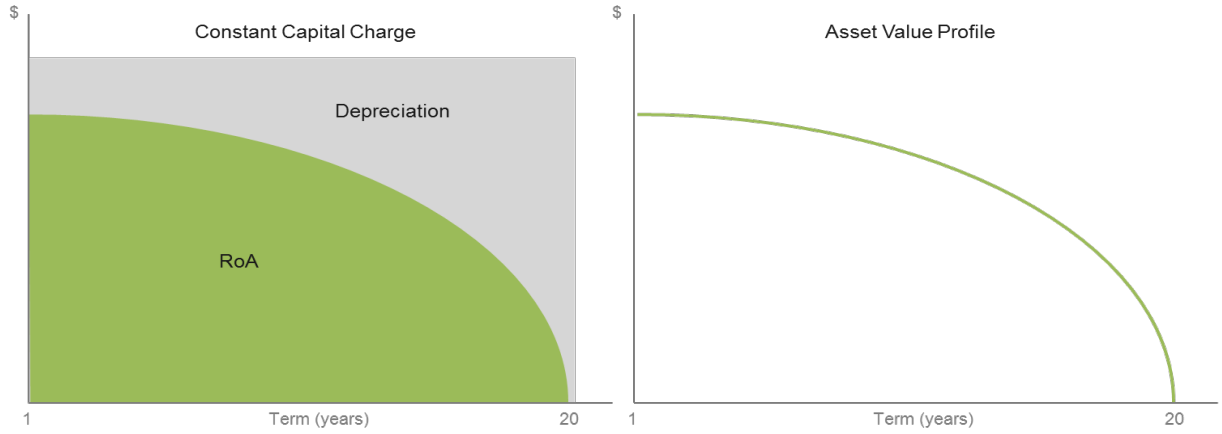
In doing so, it was also considered whether exceptional loss could occur, not only in regard to the floor and ceiling, but also with regard to the prices that are realistically likely to be negotiated. For example, for older railway assets, access seekers would not accept a charge close to the GRV ceiling in any case and railway owners are unlikely to accept an access price that is below the costs that would be considered in a DORC floor. As such, exceptional losses in actual revenue are not expected.

That said, it is considered that losses as a result of a change in the initial asset valuation should be addressed, as railway owners invested on the assumption of a GRV methodology and as a result, may not have obtained the benefits of having a DORC methodology applied from the beginning of their asset's life (which could have provided a higher ceiling than GRV in the early years).

It is proposed to address these concerns by adjusting the timing of cash flows for depreciation and return on assets in certain circumstances. In particular, this could be achieved by using a 'back-ended' depreciation profile, which would be calculated by using an annuity formula to calculate capital costs. This annuity approach to calculating depreciation assumes that depreciation in the earlier years of an asset's life is lower than it would otherwise be under a conventional straight line approach, meaning the railway owner can depreciate at a higher rate over the remaining part of an asset's life. This could be seen as allowing a railway owner to account for depreciation that was not able to be recovered in the earlier years of an asset's life under the GRV approach.

A simple representation of this annuity approach is shown (in real terms) in Figure 1.

Figure 1: Annuity depreciation curve

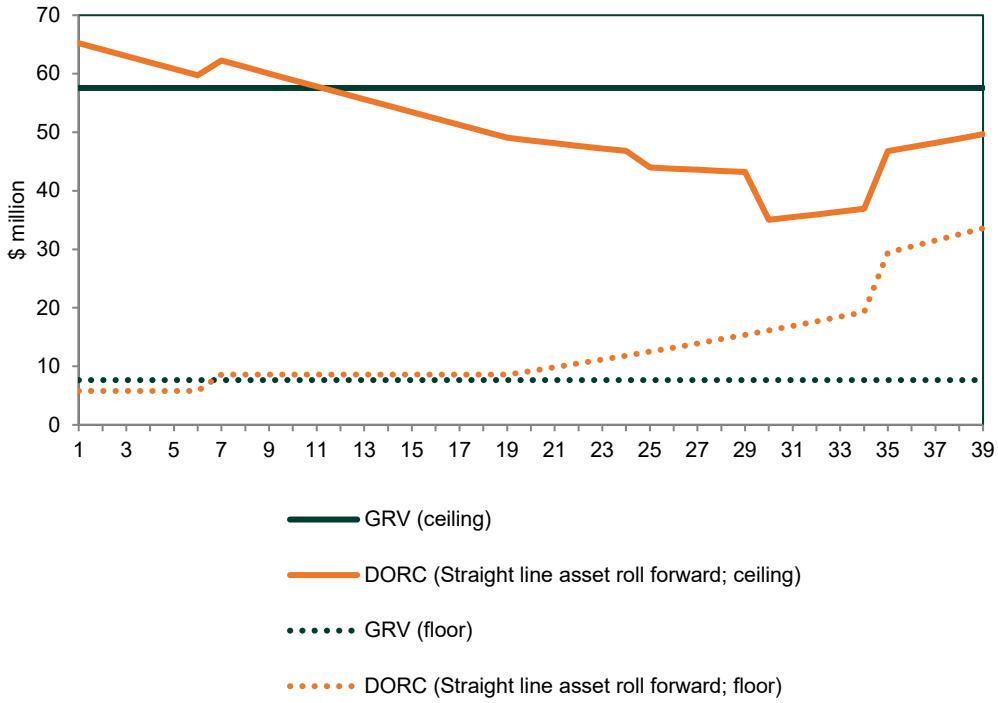


Source: Synergies Consulting

Using an annuity approach to depreciation will make the ceiling more consistent across the life of an asset. However, it does not result in a ceiling that is constant (in real terms). This is because the ceiling includes actual operating and maintenance costs, which vary across the life of an asset, and a railway does not consist of one 'asset' but rather multiple sub-assets that make up the whole. Figures 2 and 3 below show how the different depreciation profiles may affect the floor and ceiling across the life of an asset (the assumptions used to derive these graphs can be found in Appendix 3).

As shown in Figure 2, under a DORC methodology with a straight line depreciation profile, the ceiling would likely be higher than the GRV ceiling in the early years of the railway's life and would then fall below the GRV ceiling as the assets age. However, the ceiling would rise if expenditure was incurred to replace assets. The floor and ceiling would also increase slightly after the first few years of the asset's life, when a cyclical maintenance program began (this would not be required in the first few years). Under this approach the floor also increases as the asset ages to reflect increased operating and maintenance costs.

Figure 2: Comparison of floor and ceiling profile using GRV and DORC with straight line depreciation (real terms)



Source: Synergies Consulting

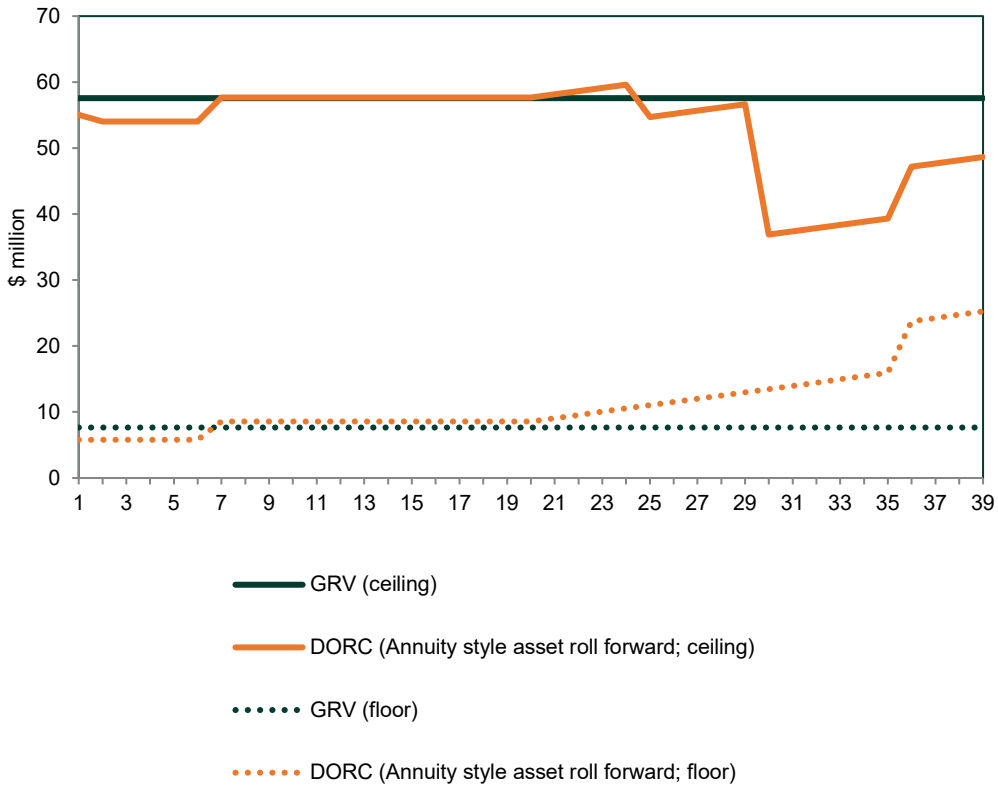
This is contrasted with Figure 3, which shows how the floor and ceiling would change if an annuity depreciation profile was used, instead of a straight line depreciation profile. In this scenario, the DORC ceiling would closely track the GRV ceiling until the assets reached the end of their useful or economic life, at which point, unless the asset is replaced, the ceiling will fall significantly.

Under either methodology, where an asset's life is expired, no further depreciation or return on asset could be charged for that asset, only operating and maintenance costs (until new investment was made).

It is also proposed to limit the use of an annuity depreciation profile to five years, such that the ceiling could not be maintained at the GRV level for longer than five years. This would address any potential short-term impacts on the access prices that could reasonably be negotiated, while still allowing for the ceiling to reflect the condition of assets as they age, as intended by this package of reforms. In assessing this timeframe, the Government has also been guided by the National Competition Council's guide for Certification under Part IIIA of the *Competition and Consumer Act 2010* (Cth) which states that while transitional arrangements may be necessary to help parties adjust to a competitive market, they delay the commencement of competitive arrangements and as such should phased out as soon as possible.[8]

[8] National Competition Council, A guide to Certification under Part IIIA of the Competition and Consumer Act 2010 (Cth), December 2017, paragraph 3.16.

Figure 3: Comparison of floor and ceiling profile using GRV and DORC with annuity depreciation (real terms)



Source: Synergies Consulting

Assessment

The Government has considered how using an annuity depreciation profile for five years aligns with the criteria for transition assistance, as follows.

- **Efficiency:**
  - These transition arrangements directly address any potential short term loss in expected revenue for some existing railways from the transition to DORC by maintaining a ceiling similar to that obtained under the current GRV approach for five years while allowing future prices to better reflect asset condition after five years.
- **Equity:**
  - This option applies equitably, as railway owners with railways in similar condition will be treated in the same way.
- **Fairness:**
  - For railways that are in good condition, where there are access seekers willing to pay prices near the ceiling, the transition arrangements will ensure that the ceiling does not constrain the prices that can currently be negotiated (at least for five years).
  - The ceiling will reduce more substantially for older assets, if asset renewal does not occur. However, in this case this would not generally reflect a reduction in

expected revenue as it is unlikely that negotiated access prices would be near the GRV ceiling in any case.

Recommendation

Given the suitability of the annuity depreciation approach to addressing the transition criteria, it is proposed to allow railway owners to use this where it is necessary to address transitional impacts, for a limited time.

Recommendation 1C – Allow the use of an annuity approach to depreciation where it is necessary to manage transitional impacts on existing railway owners, for a maximum of five years.

How this would be implemented

It is proposed that the railway owner would be able to make a proposal to the ERA about using an annuity depreciation profile for their railway and the need for using that profile. The railway owner would have to demonstrate that an annuity depreciation profile was required to address any transitional impacts. This could be done by demonstrating that the conventional straight line depreciation approach to DORC would constrain the access prices that could otherwise be reasonably negotiated. This would involve providing evidence that the conventional DORC ceiling price would be below the prices that access seekers are currently paying, or that railways owners can prove they are willing to pay, for the relevant route.

If railway owners could demonstrate the need for these transitional arrangements, the ERA would then be required to approve the use of an annuity depreciation profile for a maximum of five years. At the conclusion of five years, railway owners would have to change their depreciation profile to the conventional straight line approach, or other depreciation profile that reflects the economic value or condition of the asset as approved by the ERA.

Guidelines would be developed for the ERA and industry on how railway owners will be required to demonstrate the need to access the transitional arrangements. This will also include a mechanism to ensure that the transitional arrangements do not allow the DORC ceiling to rise above the level of the relevant GRV ceiling.

3. Pricing guidance

3.1. Problem

The Rail Access Regime is focused on enabling commercial negotiation around a wide range of possible prices within floor and ceiling limits. This allows parties to tailor access agreements to the particularities of each access proposal. However, there is currently only limited guidance provided in the Code about how a price between the floor and the ceiling should be selected and some stakeholders have commented that this is not effective in making negotiations efficient.

While changing the asset valuation methodology to DORC and updating the floor and ceiling methodology (as proposed above) is likely to reduce the range between the floor and ceiling, information asymmetry may make it difficult for parties to agree on an efficient price within that range. Effective pricing guidance can help address some of these information imbalances and in doing so speed up the negotiation process.

3.2. Options considered

Five options were considered to include further pricing guidance in the Regime to guide parties on how to negotiate an efficient price between the floor and ceiling:

1. Status quo;
2. Indicative tariffs;
3. Published standing offers;
4. Competitive imputation pricing; and
5. Guidance on allowable price changes.

3.3. Assessment and recommendation

3.3.1. Status quo

The Code currently has provisions that provide some guidance about the price to be paid for access in clause 13 of Schedule 4 of the Code, set out as follows:

- there should be consistency in the application of the pricing principles to all rail operators, including the railway owner if it proposes to undertake rail operations. That is, any difference in prices for operators in the same market must only reflect differences in the cost or risks associated with providing them access;
- prices should reflect the standard of the relevant infrastructure and the operations to be carried out, relevant market conditions and any identified preference of the access seeker;
- apportionment of costs should be fair and reasonable;
- prices should be structured to encourage optimum use of facilities; and
- prices should allow the railway owner to recover, over the economic life of the infrastructure, the costs of any extension or expansion required to accommodate the operator.

These provisions do not require an associated approvals or regulatory process; they are provided primarily for the consideration of parties in negotiating a price between the floor and ceiling and to inform an arbitrator's determination in the event of a dispute.

Assessment

As noted in section 3.1, this existing pricing guidance appears insufficient to make the negotiation process efficient. This is because there is little guidance on how to set prices between the floor and ceiling and in some cases, the existing guidance provides the opportunity for parties to develop conflicting interpretations. Depending on the particular access proposal being negotiated, either party may be able to use this insufficient guidance to their advantage, with the result that negotiations are imbalanced. For example, railway owners and infrastructure owners may have differing views on what constitutes a fair and reasonable price for access, particularly where the infrastructure is not near replacement condition. Or a price that an access seeker considers fair and reasonable may not be what the railway owner considers will encourage optimum use of the infrastructure.

Table 6: Summary of costs and benefits: current pricing guidance

Benefits	Costs
Provides a high degree of flexibility in negotiating prices.	Relatively high opportunity for parties to have conflicting interpretations of some of the current pricing principles.
Has no requirements for regulatory approvals and therefore low regulatory burden.	Limited guidance on how to set prices between the floor and ceiling, which can slow negotiations.
	Lack of relevant pricing guidance may unfairly increase the negotiating leverage of railway owners, as uncertainty around an arbitrated outcome may discourage access seekers from seeking arbitration.
	In some cases, the lack of guidance may unfairly increase the negotiating leverage of access seekers, particularly where there is a competitive alternative to using rail.

Recommendation

It is considered that additional guidance should be provided, as discussed and more specifically recommended in the following sections.

3.3.2. Indicative tariffs

An indicative tariff is a standard price for access that is approved by the regulator for a particular freight task. Where an indicative tariff exists, it is reflected in the price initially offered by the railway owner. The tariff, coupled with the standard terms and conditions, would guide any negotiation of that price with the access seekers and would be considered in any subsequent arbitration.

Indicative tariffs aim to achieve more efficient use of below rail facilities, by providing more certainty that access prices will be set on the basis of efficient costing principles.

Indicative tariffs are a feature of access undertakings, including the ARTC's Interstate and Hunter Valley undertakings made under the National Access Regime and Aurizon's undertaking under the Queensland Competition Authority Act 1997.

Assessment

In circumstances where there is low incentive for commercial negotiation, indicative tariffs can make the negotiation process significantly more efficient, as they limit the ability for a railway owner to impede negotiations.

However, there are costs associated with imposing indicative tariffs (as outlined below). Therefore, consideration has been given to applying indicative tariffs only where the following criteria are met:

- there are one or more access seekers with homogenous freight tasks (as there is less need for negotiation to meet the circumstances of a particular access seeker);
- the railway owner's revenue is close to total cost for that route (as potential for regulatory error in setting an indicative tariff would be lessened); and
- there is less incentive for the infrastructure owner to negotiate for access to its rail network (e.g. due to vertical integration).

Despite restricting indicative tariffs to these limited circumstances, during consultation, stakeholders expressed concern regarding the regulatory burden of tariffs and many considered that the majority of the benefits in regard to transparency and consistency could be achieved by requiring railway owners to publish a standing offer instead (see section 3.3.3 below).

Table 7: Summary of costs and benefits: indicative tariffs

Benefits	Costs
Improved certainty for access seekers that access prices are based on efficient costing principles.	Introduces the risk of regulatory error.
Reduces information asymmetries.	Tends to limit negotiated tailoring of arrangements to individual access seeker's preferences. However, provided that they are required where only limited 'tailoring' of arrangements is required, i.e. where the service sought is quite homogenous, then the costs associated with constraining this opportunity for commercial negotiation will be lessened.
In circumstances where there is low incentive for commercial negotiation, indicative tariffs can significantly improve commercial negotiations, as they significantly limit the ability for a railway owner to frustrate the negotiation process.	Development of indicative tariffs will create a new regulatory process for both the initial tariff development and subsequent review. An efficient process for the regulatory review and approval of indicative tariffs may be resource intensive. However, adopting the suggested criteria for when indicative tariffs are to be developed should mean that these costs will only be incurred where the benefits of implementing indicative tariffs

Benefits	Costs
	outweigh the costs incurred in this new regulatory process.
Limits price increases to relevant and transparent changes in cost or risk involved with the provision of the service.	Does not account for a willingness to pay or changes in market conditions.
	Requires the regulator to define an indicative service which can be difficult – if too broad it is unlikely to be useful, if too narrow not many access seekers will meet the requirements to access it.

Recommendation

As it is likely that most of the benefits of indicative tariffs can be achieved via a different mechanism that does not carry as high a regulatory burden, it is not recommended that indicative tariffs are introduced. An alternative is proposed in the following section.

3.3.3. Standing offer

A standing offer is similar in form to an indicative tariff, but without the regulatory approval process associated with a tariff. It comprises of a price for a particular freight task, as well as the standard conditions associated with that freight task.

Standing offers are used in electricity markets in other jurisdictions in Australia, where competition has been deemed to be effective enough to remove regulated tariffs, but there is a need to provide a signal to customers about what a reasonable price to pay might be. While there are many differences between the markets for retail electricity and rail access, there is still considered to be merit in having a standing offer for certain rail tasks in WA to provide more transparency about what an efficient price between the floor and ceiling might be without the associated regulatory burden.

As with indicative tariffs, a standing offer would be for a standard freight task and would be accompanied by standard terms and conditions. If the desired access differed from the standing offer then commercial negotiation would be expected around that offer.

Assessment

Given standing offers have a significantly lower regulatory burden than indicative tariffs, it is considered reasonable that they could be applied in broader circumstances than those considered for indicative tariffs. In particular, it is considered that they could usefully apply in any situation where there are one or more actual or potential operators on a route with similar freight tasks.

With regard to the other criteria that are set out for indicative tariffs in the section above:

- The criteria regarding revenue being close to the ceiling is not relevant for the standing offer, as that criteria was designed to avoid regulatory error, which is not a risk in this option.
- The criteria regarding having less incentive to negotiate may exclude routes such as the interstate route where there is sufficiently homogenous traffic that would benefit from a standing offer. For example, feedback has been received from some

stakeholders that intermodal traffic on the interstate route is sufficiently similar to justify an indicative tariff or standing offer, noting that in its 2015 review of the Code, the ERA acknowledged that there may be a net benefit to indicative tariffs for interstate services west of Kalgoorlie (paragraph 92).

Overall, it is considered that the benefits of standing offers are similar to that of indicative tariff, but with a reduced regulatory burden.

Table 8: Summary of costs and benefits: standing offers

Benefits	Costs
Improved certainty and pricing signals for access seekers, thereby reducing transaction costs associated with commercial negotiations.	Tends to limit the tailoring of arrangements to individual access seeker's preferences, however less so than indicative tariffs. As per indicative tariffs, provided that they are required where only limited 'tailoring' of arrangements is required, i.e. where the service sought is quite homogenous, then the costs associated with constraining this opportunity for commercial negotiation will be lessened.
Reduces information asymmetries to encourage market usage (where efficient).	Does not account for a willingness to pay.

Recommendation

Due to the improved transparency and minimal regulatory costs, it is considered that introducing standing offers will improve the effectiveness of the Regime.

Recommendation 2 – require railway owners to publish a standing offer for defined rail tasks when required by the ERA.

How this would be implemented

It is proposed to implement a requirement to publish standing offers in the following way:

- The ERA would be required to determine when a standing offer is required, using the criteria that they apply in any situation where there is more than one actual or potential operator on a route (including the railway owner if applicable) with similar freight tasks, with similarity in freight tasks assessed in relation to train length and axle load.
  - 'Operators' will be interpreted to include access seekers with agreements, negotiating agreements, or otherwise likely to seek access inside or outside the Code.
  - The ERA could trigger this requirement themselves through market monitoring, or through consultation with potential access seekers.
  - The ERA would also be able to consult on this more broadly if they considered it necessary.
- Where one is required, the railway owner would have to develop the standing offer and the standard terms and conditions to underpin this, (e.g. service standards). This would also not need to be approved by the regulator.
  - The standing offer would be required to be within the floor and ceiling and set with regard to the costing provisions and principles in the Code.

  - It could have conditions attached to it, for example the price offer being subject to no expansions being required.
- Once a standing offer was required, the railway owner would be required to keep both the price and standard terms or conditions up to date until such a time that the ERA decided it was not required anymore.
  - The railway owner would be able to submit to the ERA that a standing offer was no longer required at any time and the regulator would be required to consider this.
  - The railway would be able to amend the standing offer at any time if they consider it necessary. However, this would not mean there is an automatic right for existing access prices to be amended.
- The railway owner would be required to publish the standing offer on its website.
- The standing offer would be used as a starting point for negotiations for the freight tasks it is relevant to. In particular, any divergence from the standard conditions would be cause for negotiation away from the standing offer.

3.3.4. Competitive imputation pricing

This option seeks to help determine an appropriate price between the floor and ceiling limits, in those cases where there are competitive alternatives to rail, such as road. The competitive imputation pricing principle also seeks to ensure that access prices maximise access seekers' contribution to fixed and common costs while also encouraging use of the railway.

It seeks to achieve this by requiring that parties consider the following principle when negotiating access prices:

> "Where there is a competitive alternative, an access price should be negotiated with regard to the price of another mode of transport (or combination of) for transporting similar freight, adjusted for service quality differences between rail and the competitive alternative and reduced by the efficient above rail cost of providing the relevant freight service."

Assessment

In the Draft Decision Paper, it was recommended to introduce a competitive imputation pricing principle in addition to the pricing principles already in the Code. It was considered that the principle could assist in cases where an arbitrator has to determine an access price by helping to limit the opportunity for either the access seeker or railway owner to attempt to value the alternative transport mode in a way that advantages them.

However, after further consultation it has been concluded that the principle would have a low benefit, since competitive alternatives are already considered by parties in a negotiation and the arbitrator could determine the appropriate way to consider competitive alternatives in any case. Stakeholders also commented that the principle did not provide clarity on how to assess service quality differences between rail and the alternative mode of transport and could therefore lead to additional disputes. Therefore, it is considered that including the competitive imputation pricing principle in the Code will not have a sufficiently large benefit and it is no longer recommended that a competitive imputation price be added into the Code.

Table 9: Summary of costs and benefits: competitive imputation pricing

Benefits	Costs
Could limit the opportunity for negotiations to be side-tracked by alternate pricing methodologies or disputes about how sunk investments should be accounted for.	Would be difficult to assess service quality differences to justify negotiating away from competitive imputation price, potentially leading to additional disputes.
It would ensure the competitive imputation pricing principle is applied in arbitrations where there is a competitive alternative, and in doing so may improve the efficiency of those arbitrations.	Requires parties to obtain information about the cost of the access seeker's alternative transport option.

Recommendation

It is considered that including this principle in the Code will not have a net benefit and it is not recommended that a competitive imputation pricing principle be introduced into the Code.

3.3.5. Guidance on allowable price changes

This option provides guidance by specifying the circumstances in which access prices can vary over time. It assumes that there is an existing access charge in place for a service and that it is *prima facie* considered to be 'reasonable'.

There are two ways to approach this:

- Allowing access prices to be varied over time to reflect two main factors:
  - a railway owner's changes in costs of providing the service; and/or
  - changes in market circumstances, including the operator's capacity to pay.
- Requiring a railway owner to maintain its existing price methodology and not permit price variations for any changes other than the costs or risks associated with providing the service. This would mean that a railway owner could not consider changes in market circumstances or an operator's capacity to pay.

Assessment

Guidance on allowable price changes can be effective in ensuring that a railway owner does not increase charges in order to capture sunk value from its users. Stakeholders generally did not support this change. In particular, access seekers considered that access prices are not currently efficient and therefore this would offer no advantages and railway owners considered that this approach would constrain efficient charges if it applied for an extended period of time.

As such, the Government does not believe it aligns with the objective of the Regime to ensure that access charges are economically efficient.

Table 10: Summary of costs and benefits: allowable price changes

Benefits	Costs
Limits the circumstances in which prices can vary which could expedite commercial negotiations by reducing points of potential disagreement.	Assumes that a starting price exists and is efficient but there is no certainty that this is the case.
Will reduce uncertainty about likely access prices.	Limits the circumstances in which access charges can vary, which could lead to less efficient pricing outcomes.
	Could reduce flexibility in the negotiation process to arrive at a mutually acceptable price based on other determinants.

Recommendation

It is not considered that introducing this pricing principle would provide efficient guidance on economically efficient pricing between the floor and the ceiling, and as such it is not recommended for inclusion in the Regime.

4. Quantification of costs and benefits of changes to pricing mechanisms

A cost-benefit analysis was commissioned on the proposed changes to the pricing mechanisms, which incorporates implementing a DORC methodology to value assets and introducing standing offers. The cost benefit analysis was limited to these changes, as they impose the most onerous regulatory requirements. The results of this cost-benefit analysis are summarised below and the full analysis can be found in Appendix 4.

4.1. Assumptions

The cost benefit analysis includes all the costs that would result from implementing the proposed pricing mechanisms, compared with the current situation. These costs include the development of a regulatory asset base using DORC, the calculation of the regulated ceiling and floor under a DORC approach and the costs associated with standing offers, as detailed in the table below. Where similar activities are undertaken under the status quo, only the additional time or money that will be involved is included in the analysis of costs.

Table 11: Categories of costs for pricing reforms

Regulatory asset base development and maintenance costs	Pricing guidance costs	Specific access proposal costs	Implementation costs
• Cost of amending the costing principles (railway owners and ERA) • Cost of developing a regulatory asset base (railway owners and ERA) • Cost of the annual asset roll forward (railway owners) • Cost of the five year roll forward (assessment of prudency and compliance) (railway owners and ERA)	• Assessing if a standing offer is required (ERA) • Developing and maintaining standing offer tariffs (railway owners)	• Demonstrating the efficiency of maintenance, operating and future capital expenditure costs for a specific proposal over a forecast term (railway owner) • Approving the above (ERA)	• Policy and regulatory amendment costs (Government) • Learning costs for industry (railway owners)

Although the proposed pricing mechanisms would result in five main types of benefits, only two of these benefits have been quantified to calculate the cost benefit analysis: the 'bring forward' of projects and the cost savings due to reduced negotiation timeframes. The remaining benefits have not been quantified due to insufficient information but are assessed qualitatively below.

Table 12: Categories of benefits for pricing reforms

Benefit item	Materiality rating	Rationale
Lower negotiation costs	★★	Lower costs under the Code due to standing offer tariffs and clearer price guidance regarding impact of age/condition of assets.
Net cost saving due to fewer disputes under the Code	★	Lower incidence of costly disputes due to factors listed above. This is expected to be of moderate benefit but offset by potential for higher number of negotiations under code.
Bring-forward of projects due to reduced negotiation timeframes	★★★	Faster development of new projects due to shorter negotiation/dispute resolution time, resulting in economic gains through bringing forward commercial revenues and reduced capital holding costs.
Lower risk of good projects not coming to fruition	★★	Under base case, a proportion of delayed projects will not proceed due to loss in investment window. Fewer delays under the new regime will mean fewer projects are abandoned.
Increased durability of negotiated agreements	★★	Access agreements made under the Code are likely to be more 'durable' and more 'robust' in being able to address a range of future circumstances, thus resulting in cost savings from not having to re-negotiate terms and conditions of the agreement.

4.2. Results

Two scenarios were modelled:

1. A scenario where all railways have to implement the new pricing mechanisms in the first year of the reforms being introduced; and
2. An alternative scenario in which it is assumed that no access is sought to the Pilbara railways and therefore they are exempted from implementing the new pricing mechanisms (following recommendation 1B to introduce a trigger for determining the new obligations are implemented).

In practice, access may be sought to the Pilbara railways at any time within the 20 years over which the analysis has been undertaken. However, there is currently no information which can be used to determine when and if access may be sought. Therefore, the two modelled scenarios have been used to provide a range within which a potential outcome may lie.

Under the first scenario, the proposed new pricing mechanisms are estimated to generate a net present value benefit of $36 million over 20 years. Under the second scenario, where there are no requests to access the Pilbara railways, the net present value benefit falls to $21 million. This is because, although the costs decline under this scenario, the benefits decline further than the costs, as there are no Pilbara projects to benefit from the new pricing mechanisms.

As noted above, these estimates include all costs associated with the proposed pricing mechanisms, but not all the benefits, as some benefits could not be quantified. This means they are conservative estimates of the likely net benefit of the new pricing mechanisms.

A sensitivity analysis completed as part of the cost-benefit assessment also shows that the proposed reforms are estimated to provide a net benefit even if key assumptions are varied, such as reducing the assumed proportion of projects that would benefit from not being delayed or reducing the length of the delay that would be avoided (see Appendix 4 for more details).

5. Ability to opt out

5.1. Problem

The ability to opt out and negotiate an agreement without any Code provisions applying is unique to the Regime. This reflects the intention for the Regime to serve as a back-stop where commercial negotiations are not effective.

The option to negotiate for access outside the Regime provides parties the opportunity to negotiate on their own terms and avoid the more rigid regulatory process and costs associated with seeking access under the Code. However, some aspects of the Regime do not work effectively if they are only applied to agreements made within the Code.

Another difficulty with the ability to opt out of the Regime, is that it is currently cumbersome to move to arbitration under the Code if negotiations outside the Code stall. If either party chooses to recourse to the Code after beginning negotiations outside the Code, they are required to undergo the entire regulated process, as though they had not yet begun negotiations. This can be time consuming and in some cases not all steps may be necessary to progress to arbitration. For example, where a dispute relates to a non-price term or condition, the determination of a floor and ceiling may not be a useful input into an arbitrator's deliberations. However, the regulator is required to carry this out before the parties can even proceed to the negotiation stage under the Code.

5.2. Options considered

Three reform proposals were considered:

1. Making the unfair discrimination requirements mandatory regardless of whether an agreement is executed inside or outside the Code.
2. Requiring that the Part 5 instruments apply regardless of whether an access agreement is executed inside or outside the Code.
3. Allowing a negotiation outside the Code that is in dispute to be brought within the Code, with the parties able to progress straight to arbitration under certain circumstances.

5.3. Assessment and recommendations

5.3.1. Requiring unfair discrimination provisions to include consideration of agreements made outside of the Code

The Code has provisions to prevent unfair discrimination, but parties who seek, or have gained, access under the Code cannot be guaranteed that they are being treated consistently and without unfair discrimination if agreements made outside of the Code are not considered in this assessment. Without looking at out of Code agreements, there is no basis for comparison because there have been no agreements made within the Code so far.

It is proposed to extend the unfair discrimination requirements to make the non-discrimination requirements mandatory regardless of whether or not an access agreement was negotiated and executed inside or outside the Code. However, this would not mean that parties who negotiated outside the Code would be covered by these protections. It would only mean

information on out-of-Code agreements is referred to in determining whether those that have sought access within the Code are being unfairly discriminated against.

Assessment

While not all stakeholders were in favour of this reform, those who did support it considered that it would be essential to ensure that proponents who choose to seek access under the Code can be effectively protected from unfair discrimination.

Some stakeholders considered that those who sought access outside the Code should also be protected from unfair discrimination and that the proposal was not going far enough. However, it is considered that it is reasonable that if proponents choose not to use the Code, they should not be provided with the protections of the Code. Therefore, the Government has focused on ensuring that access seekers who do chose to use the Code receive the protections they are intended to obtain.

Table 13: Summary of costs and benefits: Apply the unfair discrimination provisions to all negotiations, including those outside the Code

Benefits	Costs
Would ensure the intent of the Code, that parties who seek access under the Code are protected from unfair discrimination in comparison to other agreements (both within and outside the Code) is achieved.	It may be difficult for the arbitrator to determine what constitutes unfair discrimination. However, this would be mitigated by providing additional guidance as outlined below.
Avoiding unfair discrimination encourages rail user confidence, competition and market growth.	
Will ensure vertically integrated operators cannot unfairly discriminate against third party access seekers and in favour of their own operations.	

Recommendation

It is considered that including out of Code agreements in an assessment of unfair discrimination is the most effective way of ensuring that access seekers who negotiate under the Code receive the protections that the Code is intended to provide.

Recommendation 3 – Extend the requirement in s.16(1)(b) of the Code to not unfairly discriminate between proponents to access agreements made outside the Code.

How this would be implemented

Under this proposal, a proponent seeking access under the Code would be permitted to request that the arbitrator assess a claim of unfair discrimination at any time after negotiations had begun. To be covered by the unfair discrimination provision an access seeker would have to be negotiating under the Code. Parties with agreements outside of the Code would not have access to Code protections against unfair discrimination.

The arbitrator would be required to consider whether the price, terms or conditions in the proposed access agreement could constitute unfair discrimination, both in relation to any other proponents that had sought access within the Code and in relation to proponents that had sought access out of the Code. The Code would be amended to specify that agreements

made outside the Code should be considered in assessing unfair discrimination. The arbitrator would then be able to use its powers under the *Commercial Arbitration Act 2012* to collect the relevant information to assess this.

Additional guidance will not be provided on the meaning of unfair discrimination, beyond that which is provided in cl. 13(b) of the Code, which states that any difference in respective prices must only reflect a difference between them in the costs or risks associated with the provision of access. It is noted that while the ERA recommended further clarification on the definition in their 2011 Code review, in their 2015 Code review they concluded that unfair discrimination did not need to be further defined in the Code, as any remedy for unfair discrimination would need to be pursued through legal means and examined to determine if there is a case.

Given the level of information asymmetry between an access seeker and railway owner with regard to the prices paid by other parties, it is not intended to impose onerous obligations on the access seeker if they wish to have a claim of unfair discrimination assessed.

It is proposed that an access seeker would be able to make a request to an arbitrator to assess whether unfair discrimination was taking place and must make a reasonable case as to why they think this is occurring. In doing so, they may compare their access price, terms or conditions against the standing offer, train management guidelines or train path policy and identify why they may be experiencing unfair discrimination. They could also identify a freight task operating on the same route that they consider has a similar level of cost and risk to their task and identify why they consider they are being unfairly discriminated against with regard to that freight task.

This will only apply to access agreements entered into after the date that the relevant Code amendment takes place, including any agreement on extensions, renewals, or variations after that date.

5.3.2. Applying Part 5 instruments to agreements outside the Code

Consideration has been given to applying the Part 5 instruments to agreements made outside the Code. The rationale behind this was similar to that outlined in the section above, to ensure overarching protections applied to all access seekers and to bring about more consistent treatment of access seekers inside and outside the Code.

Assessment

Following consultation, it is considered that while it is appropriate to ensure that access seekers who negotiate inside the Code receive the protections intended by the Code, it remains desirable to retain flexibility for out of Code negotiations.

Basic protections for access seekers who negotiate under the Code against unfair discrimination in regard to Part 5 instruments, such as train path allocation and real time train management, will be provided through recommendation 3 above.

Table 14: Summary of costs and benefits: applying the Part 5 instruments to all negotiations, including those outside the Code

Benefits	Costs
Imposing obligations on out of Code negotiations to align with the Part 5 instruments may provide more guidance for out of Code negotiations and improve transparency.	Could increase the regulatory burden on the railway owner, as they would have to ensure agreements made outside the Code complied with the Part 5 instruments.
	Would result in reduced flexibility and scope for commercial negotiations.

Recommendation

Applying the Part 5 instruments to negotiations or agreements outside the Code is not recommended.

5.3.3. Fast track negotiation

The ERA raised in their 2004 review of the Code that many parties considered it important to be able to opt into the Code to access arbitration if negotiations happening outside the Code reached an impasse. They concluded that whilst opting into the Code would require negotiations to begin again at section 8, the parties would not need to serve out the maximum timeframes and the railway owner could opt not to request the information typically required under section 14, thus shortening the process to reflect the negotiations already carried out. However, they noted that the regulator would still have to carry out a cost determination which could extend timeframes.

A proposal was put forward in the Issues Paper that where parties had been negotiating outside the Code, they would be able to move into the Code and skip some steps in the regulated process to arrive at arbitration, if these had already been completed outside the Code or were not considered relevant to a dispute.

Assessment

It is considered that the likelihood that timeframes will be voluntarily expedited when commercial negotiations have already broken down are relatively low, and that as such there may be merit in amending the Code such that parties can more easily fast track to arbitration.

Table 15: Summary of costs and benefits: allowing parties to fast track to negotiation in certain circumstances

Benefits	Costs
Could improve efficiency of the regime in some instances.	No substantial costs have been identified.

Recommendation

Given that there was broad support for this in consultations, and that no substantial costs have been identified, it is proposed to implement this proposal.

Recommendation 4 – Allow access seekers who have begun negotiations outside the Code to fast-track the process to arbitration under the Code.

How this would be implemented

A party would need to make a proposal for arbitration to the ERA, demonstrate that they had made a proposal for access, had sought to negotiate and had been unable to agree, and that they were able to comply with section 14 requirements. If the ERA agreed that these conditions had been met, they would then appoint an arbitrator.

To assist them with making their decision, the arbitrator would also be able to request a floor and ceiling determination from the ERA if they consider this necessary, noting that this may not be required for some disputes. In cases where the arbitrator did require a cost determination, the arbitrator would be able to progress other parts of the dispute while a cost determination was being made, if they considered that appropriate. As such, timelines could be shortened.

For clarity, this option would not allow an access seeker to avoid any requirements of the Code that would have otherwise arisen if access was first sought under the Code.

6. Extensions and expansions

6.1. Problem

The Code provides limited guidance on how an expansion, if required, should proceed. Developing an expansion concept can be very complex and other rail access regimes include considerably more detail around the process for developing and progressing an expansion from concept to construction.

Also, while specific guidance is limited, there are two problems with the process as it is currently set out for negotiating expansions or extensions under the Code.

Firstly, the obligations to demonstrate that an extension or expansion is required and feasible currently falls on the access seeker, who does not typically have all the information required to be able to demonstrate this. While the Code has provisions to enable the access seeker to obtain the required information from the railway owner, the process could be made more efficient if the party with the relevant information was also the one responsible for demonstrating the need for, or feasibility of, extensions and expansions.

Secondly, the Code currently requires that the technical and economic feasibility of an extension or expansion is proven prior to negotiations beginning. However, it may not be possible to definitively say whether an expansion is required prior to the parties negotiating and agreeing exactly how the requested service can be facilitated. As an access negotiation proceeds, it is likely parties may discuss different ways that access can be facilitated given the access seeker's needs and railway owner's capacity. As a result, the nature of an expansion project, or the need for one at all, may differ depending on the nature of the access solutions being negotiated. Additionally, the Code does not prevent a party from proposing an extension or expansion at any time during negotiations, which raises questions about the appropriateness of having requirement to demonstrate feasibility as a prerequisite to negotiations.

6.2. Options considered

Three reform proposals have been considered:

1. Amending the current process to:
    - change the onus to demonstrate whether an extension or expansion is required;
    - change the onus to demonstrate whether a proposed extension or expansion is economically and technically feasible; and
    - remove the requirement to demonstrate technical feasibility as a pre-requisite to beginning negotiations.
2. Introducing a high level set of principles to further guide negotiations on extensions and expansions.
3. Introducing a more detailed process to guide extensions and expansions.

6.3. Assessment and recommendations

6.3.1. Amending the current process

Early feedback from stakeholders in submissions to the Issues Paper regarding responsibilities in regard to expansions and extensions indicated that it's impractical to have the requirements to demonstrate need and feasibility in their entirety on one party. This is because both the access seeker and the railway owner have unique sets of information about the proposed task and the railway capacity, respectively.

As such, the Government has amended its original reform proposal from reversing the onus of these obligations to sharing the obligations by requiring both parties to notify the other if they believe an expansion is required (based on the information they have been provided) and for the railway owner to assess the technical feasibility, with the access seeker retaining responsibility for assessing the economic feasibility (based on an efficient price provided by the railway owner).

Additionally, the ERA's 2015 Code review recommended that the Code be amended to clarify that an extension or expansion request can be made in the course of negotiations under Part 3 of the Code if necessary, rather than it being a prerequisite to negotiations. There was broad support for this in submissions during the ERA's review and during consultation undertaken as part of this review. Given this, it is considered that it is reasonable to remove the requirement to demonstrate the technical and economic feasibility of an expansion or extension as a pre-requisite to beginning negotiations and instead require it to be demonstrated during the course of negotiations where necessary.

Assessment

There was broad support for these reforms from stakeholders, who largely considered that the revised process reflects what often happens in practice in any case and would make negotiations more efficient. No significant costs were identified in consultations.

Table 16: Summary of costs and benefits: proposed changes to negotiation responsibilities for extensions and expansions

Benefits	Costs
Given that both parties have unique sets of knowledge about the access proposal and the railway capacity, it is appropriate for both parties to have an obligation to notify the other if they believe an expansion to the railway is required based on the information they have been provided.	The railway owner will incur costs in assessing whether an expansion/extension is required. However, it is likely they would already do this, even if they are not currently required to under the Code, to assist in their negotiating position and they will be permitted to recover the efficient costs of complying with this new obligation.
Avoids duplication of costs where the railway owner already has a capacity model and all the necessary information and inputs into that for their railway that the access seeker would have to duplicate to make a capacity assessment.	

Benefits	Costs
Parties would have more flexibility to agree on the most efficient access solution if different options for building an expansion can be bought to the table as they arise.	

Recommendation

It is proposed to amend the process as per the following recommendations.

Recommendation 5a – Make both parties responsible for assessing whether an expansion is required to facilitate an access request when a proposal for access is made.

Recommendation 5b – Place responsibility on the railway owner for demonstrating if an extension or expansion is technically feasible.

Recommendation 5c – Remove requirement to demonstrate technical feasibility as a pre-requisite to beginning negotiations and clarify that a request for an extension or expansion can be made at any time during negotiations if necessary to facilitate the access request.

How this would be implemented

Draft Recommendation 5a

The railway owner would be required to notify the access seeker if they believe an expansion will be required, as an addition to their obligations under section 9 of the Code. The access seekers obligations under section 8 to notify the railway owner if they believe one is required based on the information they have been provided would remain. If the railway owner believed an extension or expansion was required they would be required to provide the access seeker with a reasonable preliminary estimate of the costs of the extension or expansion and the share that would be borne by the access seeker, as currently required by s.9(2)(b)(i) and (ii). If the railway owner did not agree that an expansion was required they would not be required to provide the preliminary cost but would need to explain why this was the case.

This would assist both parties to realistically assess the access proposal as they proceed towards negotiations. Both parties would have an obligation to provide each other with information that is reasonably available to enable the other to comply with their requirements.

In cases where an extension (such as a spur or branch line) is required and it will not be operated by the infrastructure owner, it would be an obligation of the access seeker to notify the railway owner of the requirement for this.

Draft Recommendation 5b

The requirements in section 15 of the Code would be amended (and moved into a different section of the Code) and will require that, if either party has identified that an extension or expansion is required, that during negotiations the railway owner will be responsible for assessing if an expansion or extension can be carried out in a technically feasible way and that it will be consistent with the carrying on of safe and reliable operations on the route. If the parties agree that this is required, the railway owner would be required to provide an estimate of the cost of completing this work to the access seeker. If the parties agree to

proceed, the railway owner (or third parties it procures) would carry out the necessary work and notify the access seeker of the efficient price for building the expansion, or connecting the extension, and provide material to reasonably demonstrate how this price was calculated. If a railway owner had declined to do a preliminary costing at the access request stage, and later notifies the access seeker that one is required, they will be required to do a preliminary costing prior to the detailed technical feasibility study. They would not be able to recover these costs from the access seeker, provided that no material change had been made to the original request for access.

The Code would be clear that the railway owner has a right to recover the efficient and reasonable costs they have incurred in complying with this requirement, regardless of whether the access seeker entered into an access agreement or not.

The access seeker would retain responsibility for determining if any extension or expansion is economically feasible based on the efficient price provided by the railway owner. If there was a dispute about the efficient price for an extension or expansion, the parties would need to progress to arbitration to have a decision made on this.

No additional timeframes would be inserted into the Code to govern this, as it is considered that the existing 90 day time limit on negotiations will provide the necessary incentives to carry this out in a timely manner. While this timeframe can be extended by agreement between the parties, if either party is dissatisfied with the progress of the negotiations on this aspect they will have the option to proceed to arbitration, as they do now.

This approach is similar to the approach in the Australian Rail Track Corporation (ARTC) interstate access undertaking, where the ARTC has 30 days to conduct a capacity analysis, determine if additional capacity is required and, if so, provide an outline of the works and indicative estimate of the cost of such works, or an outline of the requirements of an investigation into the provision of additional capacity. In this undertaking the ARTC can request more time from the applicant to do this and the applicant has the right to proceed to arbitration if they do not believe reasonable progress has been made.

With regard to extensions that will not be operated by the railway owner, the railway owner would only be required to assess the feasibility and cost of the infrastructure insofar as it is required to connect to the existing rail line.

Again, both parties would have an obligation to provide each other with information that is reasonably available to enable the other to comply with their requirements.

Draft Recommendation 5c

The Code would be amended to clarify that a request for an extension or expansion can be made at any time during negotiations that are being carried out under Part 3, Division 2 of the Code. At the time it was discussed, the railway owner would be required to first give the access seeker a preliminary cost estimate and only proceed with a more detailed technical feasibility study if the parties agreed one was required.

At the time a request was made, the railway owner would be entitled to request that the access seeker demonstrate that it can satisfy the prudential requirements of the Code in the context of the preliminary cost of the expansion. The same provisions that currently exist in section 18 would apply to allow the railway owner to notify their dissatisfaction of any information provided in regard to this. Revisiting these requirements following a request for an extension or expansion would not invoke any stop the clock provisions in regard to the 90 day negotiation period.

6.3.2. High level guidance

High level principles could help clarify the roles and responsibilities of the various parties in negotiating an extension or expansion, such as who is responsible for developing plans, who is responsible for funding the investigations and, ultimately, construction, obligations to consult and arrangements for sharing the cost of an expansion (i.e. pro rata). This could assist with promoting effective and timely negotiations.

Assessment

Most parties that have been consulted considered that high level principles could provide assistance in negotiating extensions or expansions but did not consider them necessary.

It is agreed that high level principles could be beneficial in the absence of any other reforms. However, recommendation 1 (to move to a DORC based asset valuation approach) will provide some high level guidance as it would specify how the costs related to an extension or expansion should be treated as a matter of course. Under the DORC approach, when calculating the total cost that applies to a route for an access application, the railway owner (and regulator) would account for all the capital expenditure required to provide access, including that required for extensions and expansions. The change in responsibilities outlined in recommendations 5a-5c should also make the process more efficient as the obligations have been shifted to the parties that are best placed to meet them.

Table 17: Summary of costs and benefits: high-level guidance on the process for extensions or expansions

Benefits	Costs
Improved guidance on the process, responsibilities, timing, cost sharing and recovery of an expansion project could assist in negotiations. However, this will not be necessary as recommendations 5a-5c will improve guidance on negotiating an expansion and more detailed guidance will be provided if the DORC approach is implemented.	There could be some small costs involved for all parties in considering how to interpret the high-level guidance.

Recommendation

As the objectives of high-level principles can be met by implementing other reforms recommended in this paper, it is not recommended that additional high level principles are introduced.

6.3.3. A more detailed process

A more detailed process could set out the steps to be taken in developing an expansion or extension project from concept, pre-feasibility and feasibility studies, and could include more detailed provisions around the roles and responsibilities of various parties.

Assessment

Most parties that have been consulted considered that introducing prescriptive process requirements would increase compliance costs and be difficult to design due to the unique characteristics of different expansion and extension projects.

Table 18: Summary of costs and benefits: a detailed process to guide extension or expansions

Benefits	Costs
Improved guidance on the process, responsibilities, timing cost sharing and recovery of an expansion project could assist in negotiations. However, additional guidance will already be provided if other recommendations in this paper are implemented.	Extension and expansion negotiations are highly complex and dependent on a number of unique commercial factors and as such are not suited to a highly prescriptive process.
	Increasing the prescriptiveness would increase compliance costs for both the ERA and railway owners.

Recommendation

The Government agrees with stakeholder submissions regarding the inappropriateness of a detailed process to guide extensions and expansions and does not make any recommendations regarding this.

7. Efficiency of the regulatory process

7.1. Problem

Many stakeholders highlighted that processes under the Code are inefficient. For example:

- the amount of work that is required to be carried out by the regulator and a railway owner in response to an access request could be inefficient in the case of a frivolous access request, however there is no mechanism for the railway owner to contest the validity of an access request before this work occurs;
- timeframes are not specified in certain parts of the Code, which can hinder the negotiation process;
- uncertainty about what is required to be provided to meet certain requirements of the Code can lead to unnecessary disputes; and
- limited guidance about the standard terms and conditions for access can reduce the efficiency of negotiations.

The Issues Paper also raised that while the ERA has followed a standardised approach to consultation on Part 5 instruments, the provisions in the Code do not reflect current ERA practice.

7.2. Options considered

Eight reform proposals have been considered:

1. a provision that allows the railway owner to refer an access request to the arbitrator where they can demonstrate that an access request is frivolous;
2. improving timeframes in the Code;
3. introducing a requirement for each railway operator to have a regulator approved standard access agreement;
4. standardising access seeker obligations;
5. standardising consultation across Part 5 instruments;
6. requiring the ERA to maintain a standard set of model Part 5 instruments to apply to all new railways;
7. allowing the arbitrator to make interim orders on access arrangements; and
8. providing the regulator with the power to determine if information submitted as confidential should be released or not.

7.3. Assessment and recommendations

7.3.1. Preventing frivolous or vexatious access requests

While section 14 (or the equivalent requirements if recommendation 9 is implemented) provides important protections for railway owners to ensure they do not have to negotiate until the access seeker can demonstrate that they have the necessary financial and managerial capacity, the ERA and railway owners have to fulfil time consuming obligations (e.g. preparing incremental and total costs) prior to this requirement coming into effect.

Other rail access regimes have provisions that allow the infrastructure owner to refer access requests to an arbitrator if they believe the request is frivolous or vexatious.

Assessment

Including a provision on frivolous access requests allows the authenticity of an access proposal to be questioned up-front, which would more effectively protect railway owners and the regulator from spending time and money on frivolous access requests. Although there is a risk that this provision may be used to attempt to delay an access request, this will be minimised by placing the burden of proof on the railway owner. Nevertheless, if a claim were made to the arbitrator that a proposal was 'frivolous', it would likely be less costly for all parties to resolve it through the Code than if the railway owner questioned the authenticity of a proposal through judicial review, as they can currently do.

Table 19: Summary of costs and benefits: ability for railway owner to refer frivolous requests to the arbitrator

Benefits	Costs
Protects the railway owner from having to invest time in responding to frivolous access requests.	There may be attempts to use it as a mechanism to delay or defer an access proposal.
Protects the regulator from having to carry out a floor and ceiling determination for frivolous access requests.	
Provides a mechanism other than judicial appeals for railway owners to test the intentions of an access seeker.	

Recommendation

It is considered that the potential benefits of this reform outweigh the risks that it would be used to defer or delay access negotiations and that risk can be minimised through placing the burden of proof on the railway owner.

Recommendation 6 – insert a provision to allow a railway owner to refer an access request to the arbitrator if they can establish a prima facie case that it is frivolous.

How this would be implemented

A requirement would be added into the Code to allow the railway owner to refer a request to the arbitrator for determination where they believe, and can make a case that, an access request is frivolous or vexatious. They would need to do this within five business days of receiving the access request. The arbitrator would then be required to make a determination on this within 20 business days. In making this determination, the arbitrator will be required to assess whether the access seeker has a genuine intention of obtaining, and a reasonable likelihood of using, access rights.

The railway owner would be required to demonstrate why the access request is frivolous, rather than the access seeker having to prove why it is not. The arbitrator would only be assessing the issues put forward by the railway owner, and the access seeker's response, in making their assessment on whether the railway owner must negotiate.

A referral from the railway owner will stop the clock with regard to Code processes to avoid any unnecessary costs in the case that the access request is dismissed. However, timeframes, as noted above, will be imposed on the referral and determination to ensure that this does not cause a significant delay to access negotiations. If an access request is deemed frivolous or vexatious, the railway owner would be permitted to cease negotiations and would not be obliged to comply with other aspects of the Code with regard to that request.

7.3.2. Improving timeframes in the Code

While there are timeframes imposed on the railway owner for their responsibilities under the Code, this is not the case for arbitration proceedings and some access seeker obligations.

With regard to arbitration timeframes, the National Access Regime requires the Australian Competition and Consumer Commission (ACCC) to make a final determination within 180 days from the day an arbitration application is received. This regime does have stop the clock provisions that allow the ACCC to not count certain periods of time where more information is required, or where the parties agree to stop the clock.

Assessment

Stakeholders generally agreed with this proposal and did not identify any significant costs, however, this was on the basis that there would be an option to extend timeframes if the parties agreed in order not to compromise good outcomes for the sake of expediency.

Table 20: Costs and benefits: imposing timeframes where they do not currently exist

Benefits	Costs
Will provide more certainty to railway owners about the timeframes for different stages of the negotiation and arbitration process.	Timeframes on an arbitration could compromise the ability of the parties to provide a considered response or decision. However, this will be mitigated through stop the clock provisions and an option to extend the timeframe if both parties agree.
Will improve transparency about progress of arbitrations.	

Recommendation

It is considered that the addition of timeframes into the Code where they do not currently exist will improve the transparency and timeliness of the regulatory process for potential access seekers without any significant costs.

Recommendation 7 – insert timeframes for obligations under the Code where these do not already exist.

How this would be implemented

Timeframes would be added into the following Parts or sections of the Code:

- Part 3, Division 3: A requirement for the arbitrator to make a decision within 180 calendar days (or 120 business days) would be inserted into the Code. It would include stop the clock provisions in a similar manner to the National Access Regime

such that outcomes are not compromised where more time to consider the issues is required. It would also allow parties to extend the timeframe for the arbitrator, if both the access seeker and railway owner agree it should be extended.

- Section 18, which under the changes proposed in recommendation 9 will relate to the financial capability of the access seeker, will be amended to require that the railway owner advise if the information is sufficient within 5 business days, the access seeker provide further reasonable information within 10 business days, the railway owner then notify the access seeker whether this is sufficient within 5 business days, and, if the railway owner still believes the information provided is insufficient, the access seeker to then notify the railway owner if there is a dispute within 5 business days.
- Section 26: a requirement for the regulator to appoint an arbitrator within 15 business days would be added, provided parties had not already agreed on an arbitrator.
- A timeframe would be attached to the obligation for the railway owner to submit the regulatory asset base, which would vary according to the length of the railway, as discussed in section 2.3.4 of this report. The Government will consult further on the specific timeframe as this provision is being drafted but envisages it would be between six and 12 months.

The Code would specify that the timeframes attached to regulator decisions would not affect the validity of those decisions (similar to provisions in the *Competition and Consumer Act 2010*). However, the regulator would be required to notify the relevant parties if it considered a particular timeframe could not be met and to provide an alternative date for delivering the decision.

7.3.3. Publishing standard information package and regulator approved access agreement

Under section 7A of the Code, the railway owner is required to 'make a publication' containing their standard access agreement and the information required in Schedule 2. Schedule 2 of the Code requires information such as track diagrams, length of track, location and length of passing loops, maximum axle loads and maximum train speeds and the running times of existing trains, amongst other things.

This requirement was inserted into the Code following the ERA review of the Code in 2005. In this review, the ERA recommended that this information be published on the railway owner's website, citing that 'the increase in available information will help access seekers understand the potential operational feasibility of their proposal prior to making formal inquiries to the railway owner'. While the requirement to make the information available was implemented, it was done so in a way that required the railway owner to make this available in hard copy on request rather than on their website. In the ERA's 2011 review they recommended again that this information be provided on the railway owner's website (recommendation 1). It was proposed that this be implemented in the 2017 Issues Paper.

Assessment

Consultation with stakeholders throughout his review has highlighted that having more information readily available about the railway would help potential access seekers to assess the potential use of the railway prior to lodging an access request. Stakeholders also noted the importance of a 'master train plan' showing the train paths subject to contractual

entitlements (including by the railway owner) and the paths available for contracting or ad-hoc utilisation to help them assess the capacity of the network to accommodate their freight task.

Stakeholders have also commented that, although a standard access agreement can currently be obtained under section 7A of the Code, the standard agreements provided by railway owners do not always contain all the useful information that could reasonably be expected. Many also appeared to have little confidence that the standard agreements provided at the beginning of the process would reflect the terms and conditions that they could expect once an agreement was later struck (noting it is reasonable to expect that these would change somewhat as the details of the access proposal were negotiated).

In other rail access regimes across Australia, and in other regulated infrastructure with third party users such as airports, this type of information about the existing traffic (and therefore capacity) is readily available to potential access seekers. In addition, publishing this information on a website should represent no significant additional regulatory burden or bring about any concerns about the release of commercial in confidence information, since the railway owner is already required to keep this information up to date and provide it to any party who makes a request under the Code.

It is considered that the standard access agreement should be approved by the ERA prior to publication, to ensure that it will be effective in informing access seekers of the likely terms and conditions that the railway owner will seek to apply. Flexibility would be preserved as parties would continue to be free to agree on terms and conditions that differ from those set out in a standard access agreement.

Table 21: Costs and benefits: publishing information required in s.7A on a railway owner's website and requiring regulator approved standard access agreement

Benefits	Costs
Expedite the information discovery process and remove any opportunity for an information request to be delayed or deferred.	Increased regulatory burden for ERA and railway owner to approve standard access agreements.
Improved use of standard access agreements.	
Improved understanding of actual and potential network capacity for access seekers, allowing for a more efficient negotiation process.	

Recommendation

It is considered that having information similar to that contained in Schedule 2 available online will improve transparency for access seekers at minimal additional cost and that requiring regulator approval of a standard access agreement will improve the usefulness of this document.

Recommendation 8a – require the ERA to approve a standard access agreement for each railway owner and for this agreement, along with other relevant information, to be published on a railway owner's website instead of being made available in hard copy format.

Recommendation 8b – implement Recommendation 8 from the 2015 ERA review to reduce the prescribed time limit for updating this information from two years to one year.

How this would be implemented

Part 2A of the Code would be amended by adding a further requirement that each railway owner must have at least one standard access agreement approved by the regulator. Beyond what is already listed in Schedule 3 of the Code, no further formal requirements will be inserted into the Code. However, clarification is provided below to address a few points raised in the feedback on the Draft Decision Paper:

- The standard terms and conditions that accompany the standing offer (which are not required to be approved by the regulator) do not necessarily have to align with the standard access agreement. The standing offer and accompanying terms and conditions are intended to be route specific and may require that a train be under a certain length and axle load to access the standing price. However, the standard access agreement would cater for a range of agreements and therefore would not specify this type of information.
- The standard access agreement would not specify certain service levels or maintenance obligations, as in some cases it would be designed to be used on a variety of routes which would have different service standards. It may, however, set out mechanisms by which parties will resolve disputes where agreed service levels are not being met.
- The Code would not specify factors that the ERA should take into account when approving a standard access agreement to ensure there is enough flexibility to cater to the different types of railways that are, and could be, covered by the Code. However, Schedule 3 will be retained and will continue to provide guidance about the types of matters that should be covered.

The Code would also require that the information that a railway owner has to provide under sections 6(a) and 6(b) of the Code should be published on the railway owner's website. If a railway owner does not have a website, but information relating to the railway is maintained on the website of an associated company, then the required information as described under sections 6(a) and 6(b) should be published on that company's website.

The prescribed time limit set out in section 7C(2)(b) for the amendment or replacement of required information (information described in section 7A) would be reduced from two years to one year as per recommendation 8 of the ERA's 2015 Code review.

The following changes to the Schedule 2 information are also planned:

- Information on the running times of existing trains: it is proposed to require railway owners to publish a de-identified document outlining all committed or contracted capacity to assist access seeker in assessing whether there is capacity for their freight task. Stakeholders will be consulted as this specific provision is being drafted, but it is envisaged that the resulting document would contain information similar to that in the ARTC Customer Commitment Chart.
- The requirement in Schedule 2 to make available (or publish) gross tonnages and tonnages of freight will be removed and replaced with gross tonne kilometres.
- Available capacity: it is proposed to require the railway owner to provide the underlying assumptions they have used in calculating available capacity (e.g. the assumed characteristics of trains, running speeds, etc.)

A railway owner would be able to apply to the ERA for an exemption if particular information was not applicable to their railway.

7.3.4. Standardise access seeker obligations

Feedback from stakeholders has indicated that it can be difficult to determine what is required from them to satisfy certain provisions of the Code and that this uncertainty can lead to differing opinions and unnecessary disputes that delay the process for making an access agreement.

Assessment

It is agreed that some obligations under the Code could be made clearer to improve the process for progressing an application. It is considered that obligations under section 8 (making a proposal for access) and section 14 (demonstrating financial and managerial capacity) are sections that should be standardised.

Section 8

While the Regime has some guidance on what must be provided in an access application, there is no standard form or requirements to guide an access seeker. In contrast, other access undertakings have more detailed guidance on the information requirements for an access application. For example, Schedule B of Aurizon's undertaking with the Queensland Competition Authority sets out in detail the information an access seeker must provide in their access application. Schedule B of the ARTC's Interstate Access Undertaking also provides the information that must accompany an access application, although in less detail.

It is considered that there is value in standardising the requirements for an access proposal to provide more certainty to the access seeker about the information they need to provide and also to the railway owner that they will receive the information they need.

Section 14

Section 14 of the Code currently allows the railway owner to request that a proponent show it has managerial and financial ability to carry on the proposed rail operations and pay its share of costs related to any extension or expansion. The scope of these requirements is quite broad and there is not any guidance for an access seeker as to what a railway owner may consider necessary knowledge and experience or necessary financial resources.

In other undertakings that govern access to railways in Australia, standard prudential requirements are set out which set the minimum requirements an access seeker must meet before a railway owner is obliged to negotiate with them. The ACCC's guidelines on access undertakings states:[9]

> "A service provider may wish to stipulate pre-conditions that access seekers must satisfy in order to be granted access to the service in question – for example, satisfying certain prudential requirements.
>
> Pre-conditions can be appropriate where they reflect the reasonable commercial interests of the access provider, such as ensuring an access seeker is solvent before the provider is required to sign a contract for access.
>
> Pre-conditions may be problematic, however, if they are used in an anti-competitive manner, such as to discriminate against certain types of users, or to set the 'bar' for obtaining access unreasonably high. Accordingly, it is

[9] Australian Competition and Consumer Commission, Part IIIA Access undertaking guidelines, August 2016, page 18.

> important that any pre-conditions for access be clear, fair, reasonable and non-discriminatory. For transparency, it will likely be necessary to include the pre-conditions in the undertaking or standard terms."

An example of how this has been implemented in accordance with these guidelines, is the ARTC interstate access undertaking, which states that an applicant must meet the following criteria:

- the Applicant must be Solvent; and
- the Applicant, or a Related Party of the Applicant, must not be currently, or have been in the previous two years, in Material Default of any agreement with ARTC, or any agreement in accordance with which access to rail infrastructure not managed by ARTC, has been provided to the Applicant or a Related Party of the Applicant; and
- the Applicant must be able to demonstrate to ARTC that it has a legal ownership structure with a sufficient capital base and assets of value to meet the actual or potential liabilities under an Access Agreement, including without limitation timely payment of access charges and payment of insurance premiums and deductibles under the required policies of insurance.

It is considered there is merit in standardising and providing more clarity about the information that is required to demonstrate financial capacity. If this is standardised and known in advance, it is also reasonable to move the requirement forward to the access proposal stage. It is noted that the ERA recommendation to require this information be provided within 7 days of the railway owner requesting this information meant the information was required within 2 weeks of an access proposal in any case.

The Code would also be amended such that if the railway owner notifies their dissatisfaction with the information provided, they would need to specify what aspect of the information they are dissatisfied with and why, and what further reasonable information they require to address their dissatisfaction.

Table 22: Costs and benefits: standardising section 8 and 14 requirements

Benefits	Costs
Less opportunity for negotiations to be delayed or deferred.	It may be difficult to determine standard requirements due to the variety of railway lines in WA.
More clarity for access seekers about their obligations.	

Recommendation

It is considered that standardising access seeker obligations will improve the transparency and efficiency of the regulatory process with minimal costs.

Recommendation 9 – standardise the information required to be provided by the access seeker under sections 8 and 14 of the Code.

How this would be implemented

Section 8

The Code would be amended to include a Schedule with the standard information required for an access agreement. Provisions would be included to allow the railway owner to ask for further information, as long as that information was reasonably required to assess the access proposal.

There would be consultation with stakeholders as these requirements were developed (during the process of drafting changes to the Code).

Section 14

The requirements in section 14 of the Code would be moved to section 8 of the Code and amended to be more formulaic or prescriptive requirements.

It is considered that the first two requirements in the ARTC undertaking as set out above are reasonable. A requirement similar to the third ARTC undertaking requirement listed above would be included, however, it would be amended to require an access seeker to demonstrate that it has, or will have the ability to access, the financial resources to meet its obligations (to both the railway owner and any third parties) under an access agreement. The ability to access financial resources would be satisfied by providing a bank or parent company guarantee based on the initial information provided by the railway owner under section 7. As is the case now, the railway owner would be able to notify their dissatisfaction with the information provided, provide reasoning why and request further reasonable information.

There would be consultation with stakeholders on the standard requirements as these were being developed. For clarity, this would not prevent a railway owner from imposing further financial requirements as a pre-requisite to signing an access agreement.

7.3.5. Consistent consultation on Part 5 instruments

The ERA recommended in its 2011 review of the Code that Part 5 should be amended as follows:

- Section 42 should be revised to only require public consultation for variations to segregation arrangements considered by the Authority to constitute a material change.
- Section 45 should include the costing principles and overpayment rules in order to ensure consistency in the public consultation processes across all Part 5 instruments.
- A new provision should be added to provide for the review of all Part 5 instruments every five years or as otherwise determined by the Authority.

Assessment

In practice, the ERA currently carries out consultation on all Part 5 instruments before approving or amending them. Periodic review of the Part 5 instruments allows for material changes in market conditions or circumstances not envisaged at the time of their original development, or from the last review, to be reflected so they continue to advance the statutory objectives. This proposal would make the Code clearer in this regard and regulatory burden will not increase as this reflects the approach currently taken by the Authority.

Concerns were raised in stakeholder submissions about the ability for the ERA to define what a material change to the segregation arrangements is without consulting first. It is considered that the ERA has sufficient experience under other access regimes to be able to determine if a change is likely to affect outcomes for access seekers and therefore whether consultation is required.

Table 23: Summary of costs and benefits: consistent consultation on Part 5 instruments

Benefits	Costs
This would ensure the Code reflects current practice and therefore creates realistic expectations for railway owners and access seekers.	Less flexibility for the ERA to tailor consultation requirements in future.

Recommendation

Given this change is to reflect the ERA's consultation in practice, it is considered reasonable to implement it.

Recommendation 10 – Standardise consultation across all Part 5 instruments.

How this would be implemented

The Code would be changed to require the ERA to:

- consult on the costing principles and overpayment rules and only require the ERA to consult on material changes to the segregation arrangements; and
- review of all Part 5 instruments every 5 years at a minimum to ensure they are fit for purpose. The regulator will be required to seek public comment (for all instruments) in accordance with the process set out in section 35 of the Code.

7.3.6. Model set of Part 5 instruments

During the ERA's 2011 Review, concerns were raised that the Code, rather than specifying a definitive timeframe for the submission or approval of Part 5 instruments, requires they be submitted 'as soon as is practicable after the commencement of the Code'. The ERA considered that the lack of definitive timeframes for submitting Part 5 instruments by greenfield railway owners hampers a Code objective of providing timely access to prescribed railways, undermining the effectiveness of the Code.

Assessment

In the Draft Decision Paper, it was proposed to develop a model set of Part 5 instruments that would apply to all new railways six months before operations begin (or before an access holiday expires), as this could enable the railway owner to propose amendments to the model instruments sufficiently early for the ERA to approve them prior to the date they are intended to apply. However, during consultation on the Draft Decision Paper, several stakeholders commented that the model Part 5 Instruments would provide little benefit, as the instruments typically differ substantially across different railways and new railways would be unlikely to be able to accommodate access seekers during their start-up phase in any case. As a result, it is now considered that developing model instruments is unlikely to save time for future access seekers or new railway owners.

Table 24: Summary of costs and benefits: model set of Part 5 instruments

Benefits	Costs
May allow Part 5 instruments to be finalised more quickly when new railways are added to the Code. However, there is unlikely to be a significant benefit from this as substantial changes would need to be made to the model instruments and new railways may not be able to accommodate access seekers initially in any case.	Increased regulatory burden for the ERA.

Recommendation

It is not recommended that the ERA develop a model set of Part 5 instruments.

7.3.7. Allow arbitrator to make interim order on access arrangements

Feedback has been received that the time period leading up to an access agreement expiring presents an opportunity for infrastructure owners to exercise monopoly power by unreasonably amending prices, terms and conditions and withholding access if the access seeker does not agree. This is particularly the case where access seekers have significant sunk investment in rail infrastructure and require ongoing rail access to maintain business profitability.

Assessment

While different access prices, terms or conditions may be justified in an access agreement renegotiation, it is considered reasonable that where parties have an existing agreement and are in the process of negotiating a new agreement under the Code (provided the access request is not subject to a frivolous or vexatious claim), that the arbitrator should be able to make interim orders for a temporary access price. This will allow the railway owner to make a case as to why prices, terms or conditions should be varied and to have the arbitrator assess the reasonableness of this prior to a final agreement being negotiated or decided by an arbitrator.

Table 25: Costs and benefits: allowing the arbitrator to make an interim ruling on access

Benefits	Costs
Improved assurance for access seekers that railway owners will not be able to exercise monopoly power in access arrangement re-negotiations.	Additional regulatory oversight, which could limit railway owner negotiation approaches.

Recommendation

It is considered that the time between access arrangements being negotiated is one that involves a higher risk of the exercise of monopoly power by the railway owner and as such it is considered reasonable that there are some protections available for this time period.

Recommendation 11 – Provide for an arbitrator to make an interim order on access prices, terms and conditions if parties have an agreement that is expiring and are renegotiating under the Code.

How this would be implemented

A provision would be inserted into the Code that allows for an access seeker or railway owner to request the arbitrator to make an interim decision on prices, terms and conditions provided that:

- the parties had an agreement, either within or outside the Code, and were renegotiating access under the Code for the same route; and
- the current access agreement was due to expire in less than 6 months.

In making its decision, the arbitrator would be allowed to consider the existing access arrangements and any material submitted by the parties as to why they should be varied. Interim orders would be subject to a 12 month maximum timeframe to ensure parties and the arbitrator still have an incentive to reach a final decision.

The arbitrator would also be able to require interim access prices to be retrospectively adjusted (and therefore a reconciliation required) if considered necessary when the arbitrator makes their final decision. This would protect both railway owners and access seekers if the final decision varied significantly from the interim decision, or if the access price in the interim decision was outside the floor and ceiling.

The arbitrator would not be able to make an interim determination that required a significant capital investment by the railway owner.

7.3.8. Allowing parties to agree on an arbitrator

As the Code is currently drafted, the regulator is required to appoint an arbitrator following the parties notifying them of a dispute. There is no opportunity for the parties to agree on an arbitrator should they wish to do so.

Assessment

Allowing the parties to agree on an arbitrator could have efficiency gains in the situation where parties wish to use an arbitrator who may not be on the panel established by the ERA. It is considered that, between them, parties to an access dispute are capable of selecting an arbitrator with the capabilities required to determine the dispute.

Table 26: Costs and benefits: allowing parties to agree on an arbitrator

Benefits	Costs
Will improve efficiency of arbitration process in certain circumstances.	No significant costs identified.

Recommendation

It is considered that there is a net benefit to allowing parties to agree on an arbitrator.

Recommendation 12 – Allow parties to agree on an arbitrator in the first instance.

How this will be implemented

Section 26 of the Code would be amended to allow the parties to notify the regulator that they are in dispute and that they have already agreed on an arbitrator for the dispute. Any agreed arbitrator would have to comply with the *Commercial Arbitration Act 2012*.

If they do not notify the regulator, then the regulator would notify both parties that they have 10 (business) days to agree on an arbitrator. If the parties cannot agree, then the regulator will be required appoint an arbitrator from the panel in accordance with the process currently set out in the Code.

8. Railway owner accountability

8.1. Problem

Accountability arrangements for access providers need to strike a balance between providing sufficient transparency and assurance to stakeholders while not imposing unnecessary regulatory burden. The Issues Paper identified that the Regime is currently light handed in terms of its compliance obligations and that this may not be providing stakeholders with information on how effectively the Regime is being applied or the service quality they should expect from railways covered by the Regime.

8.2. Options considered

Three reform options were considered:

1. providing for more regular and consistent reporting of the railway owner's compliance with the Part 5 instruments;
2. requiring the railway owner to publicly report on a regular basis on the progress of access negotiations, including for example: the number of access applications outside the Code, the number of access applications within the Code, the number of negotiations under the Code that have commenced, information on disputes or judicial challenges to any obligations under the Code, and the number of negotiations under the Code that have concluded with an access agreement; and
3. requiring the railway owner to publicly report on a regular basis (e.g. annually) on service quality matters such as: track condition, percentage of track under speed restriction, percentage of train services delayed, percentage of train services cancelled and average below rail delays.

8.3. Assessment and recommendations

8.3.1. Regular and consistent reporting on compliance with Part 5 instruments

The aim of having more regular and consistent reporting on compliance with Part 5 instruments was to provide more transparency on how railway operators were complying with their requirements under the Regime. Comments from stakeholders in submissions in response to this proposal mainly focused on the need for more detailed information about pricing, performance standards and asset quality.

Assessment

It is considered that this type of information will be provided through other changes to the Regime. For example, recommendation 1 (to introduce a DORC approach) will provide more information about asset quality and recommendation 13 (to improve reporting of service quality indicators) will provide information on performance standards. As such, it is not considered that there is a need for more regular or consistent reporting on compliance with Part 5 instruments.

Table 27: Summary of costs and benefits: regular and consistent reporting on compliance with Part 5 instruments

Benefits	Costs
Additional compliance monitoring and reporting could give access seekers confidence that instances of non-compliance will be identified and remedied and provide more confidence in the Regime. However, the additional benefits provided by additional reporting are likely to be small if other recommendations made in this paper are adopted.	Increased regulatory burden for railway owners in terms of time and costs to prepare reports.
	Increased enforcement costs for the ERA.

Recommendation

Given the information identified as useful will be provided as a result of other reforms, there are no recommendations for reporting on Part 5 instruments.

8.3.2. Reporting on outcomes of access negotiations

In the Issues Paper, a proposal was made for the railway owner to publicly report on a regular basis on the progress of access negotiations under the Code as a means of improving transparency about how the Regime was operating.

Assessment

There is not considered to be enough justification for reporting on the outcome of access negotiations and there is agreement with stakeholder submissions that stated that there may be reasons why both parties may want to keep negotiations confidential.

It is noted that the ERA must already be made aware of access proposals under the Code and should they have concerns about the progress of negotiations is able to compel a railway owner to provide information using their existing powers in the Act.

Table 28: Summary of costs and benefits: reporting on outcomes of access negotiations

Benefits	Costs
Could provide useful information on how the Regime is performing. For example, may highlight an area where timeframes are routinely extended which could assist with making improvements to the Regime.	It may not be in either party's interests to have negotiations reported publicly.
	This may adversely affect the progress of any access negotiations and breach confidentiality obligations assumed by the railway owner and access seeker.
	Increased regulatory burden for railway owners in terms of time and costs to prepare reports.
	Increased costs for the ERA.

Recommendation

No changes are recommended to require the railway owner to report publicly on the outcome of access negotiations.

8.3.3. Reporting on service quality indicators

Several stakeholders have raised concerns about the lack of transparency about the service quality they might expect if they gain access to railways in Western Australia. Requiring railway owners to report on service quality indicators can increase the accountability of railway owners with regard to the service they offer to access seekers and is a standard component of the other access undertakings in Australia.

For example, the IAU commits ARTC to periodically report on unit costs and the service quality performance indicators of reliability, network availability, transit time, temporary speed restrictions and track condition. The HVAU commits ARTC to periodically report on transit time, maintenance requirements and coal chain capacity losses.[10]

Assessment

With the introduction of a DORC based valuation methodology, there is likely to be more information available about the age and condition of a track and the cost of operating it, which may mean that less additional information is needed on the service quality that a party using the railway should expect. However, it is considered that some service quality information that has been identified as useful will not be available as a result of this and that it is important for access seekers to be able to access this to enable them to make an early assessment of whether rail is likely to be a feasible freight solution for them.

Having service quality indicators available would also improve the accountability of the railway owner in regard to the level of service quality, by requiring them to evaluate and publish key drivers in the cost of providing the service and contributing factors in any service quality decline.

Table 29: Summary of costs and benefits: reporting on service quality indicators

Benefits	Costs
Access seekers will be able to find out the standards at which the railway owner will operate at in exchange for its access fees and to understand whether the railway operator is operating the rail network efficiently and supplying services at a satisfactory level.	Increased regulatory burden for railway owners in terms of time and costs to prepare reports.
Understanding and being able to demonstrate expected service quality will assist third party access seekers who are negotiating funding arrangements.	Information that is required may be of interest to railway owners' competitors, although it is unlikely to be commercially sensitive and there will be an ability for railway owners to seek exemptions from the ERA in any case.

[10] Australian Competition and Consumer Commission, *Submission to Rail Access Review,* January 2018.

Benefits	Costs
The publication of service quality information can support lower transaction costs in the negotiation and monitoring of performance under an access agreement.	
Publicly reported service quality indicators can assist haulage operators to demonstrate expected levels of service to their customers.	

Recommendation

It is considered that having additional information available on service quality indicators will improve the transparency of the Regime and facilitate more effective negotiations.

Recommendation 13 – Include requirements to publish service quality indicators.

How this would be implemented

Obligations for railway owners to report on certain service quality indicators would be inserted into the Code. The Code would be clear that these are published for information only and do not constitute a binding constraint on the railway owner. The intent is that the railway owner would be required to provide high level information that would be available to potential access seekers or to existing access seekers for basic benchmarking. This is not intended to replace, or be at a level similar to, the more granular and timely information that would generally be expected to be available to a train operator with access rights.

Railway owners would report on:

- Actual minimum, maximum and average section run time performance, broken down by each route section and axle load.
- Percentage of trains delayed on network entry and exit, broken down into operator, network and third party caused, and the average length of delays.
- Percentage of train services cancelled, broken down into train operator caused and network operator caused.
- Percentage of time a route is subject to a temporary speed restriction, the average distance and duration of temporary speed restrictions by route and a definition of what is classified as a ‘temporary speed restriction’ (e.g. the events and duration it covers).

At a minimum, railway owners would be required to publish these indicators on their website each quarter and to break down the indicators by each month in that quarter.

Provisions would be included to allow individual railway owners to seek ERA approval to report on amended indicators or seek exemptions from reporting on certain indicators if they could demonstrate that an alternative was more appropriate for the users of their railway, or if they could demonstrate that the indicator could not reasonably be provided by them (e.g. due to their railway operating on a ‘run when ready’ basis).

9. Regulator Accountability

9.1. Problem

Just as accountability mechanisms for railway owners are important to ensure they comply with the Regime, accountability mechanisms for the regulator are important to ensure the Regime is appropriately implemented. There are currently a number of ways in which the regulator's decisions are scrutinised, including extensive public consultation processes and the publication of draft decision and final decision documents for significant regulator decisions. The regulator's decisions are also currently open to judicial review.

Ensuring the Regime is implemented well is particularly important in relation to regulator decisions that have a substantial effect on regulated parties, which are complex and therefore have a higher potential for regulator error, and in which the regulator has substantial power in determining the end outcome. Currently the Regime is a relatively 'light-handed' regime based on setting the parameters for negotiation and the ERA would not often have substantial power in determining the end outcome of access negotiations. This power would more likely rest with the arbitrator (if there is a dispute).

However, if changes are made to the pricing mechanisms in the Code, the regulator could be seen as having substantial power in influencing the regulatory value of covered railways following the transition. This means additional regulator accountability mechanisms are particularly warranted during the transition to new pricing mechanisms.

9.2. Options considered

Three reform options were considered:

1. Allow for merits review for all regulatory decisions.
2. Allow for merits review only for certain decisions.
3. More up-front direction for regulator decision making through instruments such as a statement of expectation or intent, combined with requirements to obtain at least two expert independent reports to inform certain decisions (e.g. for the initial asset valuation) and existing consultation processes and requirements to issue draft decision and decision documents.

9.3. Assessment and recommendations

9.3.1. Merits review for all regulatory decisions

Merits review is one way of providing assurance to stakeholders that the Regulator will implement the Regime appropriately. It is a process by which a person or body other than the original decision maker reconsiders the facts, law and policy aspects of the original decision and determines what is the correct and preferable decision. A merits review body makes decisions within the same legislative framework as the primary decision maker and may exercise all the powers and discretions conferred on the primary decision maker. It can provide assurance to access seekers and railway owners that their interests will have some protection from regulatory error.

It differs from judicial review, which allows a Court to consider and overturn a decision if it believes that there was an error of law, that the decision maker took into account irrelevant considerations (or failed to take into account relevant ones) or that the decision maker acted unreasonably or with improper purpose. A judicial review body, if they did find evidence of any of these things, would overturn the decision and usually the original decision maker would have to make the decision again with regard to the court's findings.

Assessment

Allowing for merits review for all regulatory decisions might provide greater confidence to stakeholders that the regulator is appropriately implementing the Regime, however, this would likely introduce substantial additional delays in obtaining an access agreement and regulatory uncertainty. For example, elements of a recent regulatory decision by the ERA regarding the access arrangement for the Dampier to Bunbury natural gas pipeline were appealed through merits review and the merits review process took 2 years (from 2016 to 2018) to be completed.[11]

Concerns about delays and costs have resulted in merits review being removed from other regulated infrastructure sectors such as gas, electricity and telecommunications.

As well as having substantial costs, it is also unclear whether merits review would provide substantial benefits. Judicial review is already available to challenge regulatory decisions and it is not clear whether merits review would provide substantial benefits over judicial review. In any case, regulatory decisions involving access determinations are complex and involve a considerable amount of regulatory judgement. Carrying out a review of this is costly for all parties and, although a different decision may be reached, it may not be more correct or more beneficial than the original decision.

Furthermore, it is considered that there does not appear to be a need to introduce greater accountability for all regulator decisions. Some decisions may not carry substantial regulatory risk or may not have a significant impact on either party. Introducing additional accountability mechanisms for low-risk, low-impact decisions would likely unduly lengthen processes, and impose additional costs, to reconsider matters that will not materially affect the relevant parties.

Table 30: Costs and benefits: merits review for all regulatory decisions

Benefits	Costs
Improves confidence in the ability of the Regime to deliver good regulatory outcomes through accountability for regulator decisions.	Could be used as a way to delay or defer regulatory decisions. This risk would be substantially greater if merits review were allowed for all decisions, rather than just for decisions that are particularly significant for stakeholders.
	Would involve a considerable amount of resources for all parties.

[11] Economic Regulation Authority, *Notice – Australian Competition Tribunal's judgement on the Dampier to Bunbury Natural Gas Pipeline merits review,* 30 July 2018. Available at: https://www.erawa.com.au/cproot/19351/2/Notice%20-%20ACT%20Judgement%20on%20the%20DBNGP%20Merits%20Review.pdf

Benefits	Costs
	Would add uncertainty by introducing an additional decision maker (the merits review body) and no clarity as to how the judgements of the second decision maker may differ from the judgements of the original regulator.

Recommendation

Allowing for merits review for all regulator decisions is not recommended.

9.3.2. Merits review for certain decisions

It is recognised that there are some circumstances where an incorrect regulatory decision carries a very high financial consequence and, as such, additional regulator accountability mechanisms may be warranted in those cases.

Stakeholders have indicated that the decision that carries the most regulatory risk, and has potentially the highest financial consequence, is setting the initial regulatory asset base. Consideration has been given to the option of allowing merits review for that particular decision and further restricting access to merits review to cases in which the review of the regulator's decision has the potential to significantly affect the end outcome.

Assessment

Other merits review regimes have allowed for merits review in limited circumstances and have applied a materiality threshold to ensure the potential benefits outweigh the costs of the review. For example, previously under the National Electricity Law limited merits review was allowed for to seek the correction of a material error of fact, an incorrect exercise of discretion or unreasonableness in the regulator's decision making. Prior to merits review being abolished under that regime, the Council of Australian Governments (COAG) Energy Council had agreed to make reforms to further tighten and clarify the grounds for review, to apply higher financial thresholds, to require reviews to be conducted on the papers, rather than through potentially expensive and adversarial oral hearings, and to set a higher bar for appellants to demonstrate that overturning the original decision would not be detrimental to the objective of the National Electricity Law. [12]

However, as noted above, merits review has now been abolished from these regimes, as it was found to impose more costs than benefits, even when applied to limited circumstances.

Table 31: Costs and benefits: merits review for initial decision on asset value

Benefits	Costs
Improves confidence in the ability of the Regime to deliver good regulatory outcomes	Could be used as a way to delay or defer regulatory decisions.

[12] Department of Treasury, Reforms to the Limited Merits Review Regime under the National Electricity Law and National Gas Law: Consultation Paper, 6 June 2017, p. 1. Available at: http://www.treasury.wa.gov.au/uploadedFiles/Site-content/Public_Utilities_Office/Industry_reform/Consultation-Paper-Reforms-to-Limited-Merits-Review-under-NEL-and-NGL.pdf

Benefits	Costs
through accountability for regulator decisions that have a material impact on stakeholders.	
	Would involve a considerable amount of resources for all parties.
	Would introduce greater uncertainty about the initial asset valuation.

Recommendation

It is considered that merits review is unlikely to provide material benefits over what is already provided by the availability of judicial review. It is considered that additional confidence in the initial asset valuation could be provided to stakeholders at a lower cost than through merits review. This is discussed in the following section.

9.3.3. Up front direction and expert advice

More up front direction for the regulator could involve instruments such as a statement of expectation or intent, combined with a requirement to obtain at least two expert independent reports in certain circumstances, in addition to existing consultation processes and requirements to issue detailed draft decision and decision documents for certain decisions.

Under this approach, judicial review would be available, as is currently the case.

Assessment

The intent of this option is to reduce the risk of regulatory error occurring in the first place, while minimising the uncertainty about regulatory decisions that results from lengthy review processes.

It is considered that requiring the regulator to obtain (and publish) more up front direction and expert advice for decisions that carry a large regulatory risk will provide an appropriate level of accountability and transparency for regulator decisions. It can ensure that several expert opinions inform the decision of the regulator where necessary, without costs associated with a separate merits review body or process.

The continued availability of judicial review will ensure that if the decision maker has acted unreasonably, the parties will be able to remedy the error through the judicial system, as they are able to now.

Table 32: Up-front direction and expert advice

Benefits	Costs
Will reduce the risk of regulatory error and mis-judgement by providing clear up-front direction and additional information to the regulator.	The regulator would have to incur twice the costs in obtaining expert advice to inform the initial regulatory asset value (assuming the ERA currently obtains 1 expert report). However, this is expected to be smaller than the cost of decisions being reviewed after they are made and would only be incurred where the first expert report obtained by the ERA differs markedly to the railway owners' proposal.
Will promote transparency and accountability in regulator decision making by enabling all stakeholders to see the advice that is provided to the regulator.	

Recommendation

It is considered that additional accountability is warranted around the initial decision on the regulatory asset value, if the recommended changes to the asset valuation method are implemented. It is considered that this accountability can be most efficiently achieved through additional expert advice and up-front direction for the ERA.

Recommendation 14 – Provide more upfront direction to the ERA and require the ERA to obtain two expert reports for the initial decision on the regulatory asset value if the first expert report differs significantly to the railway owner's proposal.

How this would be implemented

The ERA would be required to obtain a second independent expert opinion on the initial asset valuation if the first expert opinion obtained by the ERA differed significantly to the proposal put forward by the railway owner. The ERA would be required to consult with the railway owner and any other interested parties prior to making the decision to procure a second report. This would ensure the ERA does not unnecessarily incur costs in obtaining a second expert report where it will not provide materially new information. However, as is the case now, the ERA would not be limited in procuring additional expert advice beyond this if they considered it necessary to make its decision.

It is also proposed to provide up-front guidance to the ERA in the form of a statement of intent (or similar) to guide the ERA in applying the transitional arrangements set out in recommendation 1c of this report.

10. Transparency

10.1. Problem

Under the regime, there are no provisions that allow for the regulator or the arbitrator to publish information if it is declared confidential by either a railway owner or an access seeker. Blanket statements of confidentiality can raise procedural fairness concerns, particularly where parties are not given access to the information necessary to make informed comments on matters that can have an impact on access prices. It can also impact on the regulator's ability to make an accurate decision if they cannot carry out a transparent and thorough consultation with all stakeholders.

10.2. Options considered

Two options for reform were considered:

1. allowing the arbitrator discretion over whether to publish determinations; and
2. allowing the regulator discretion over whether to publish information submitted to them.

10.3. Assessment and recommendation

10.3.1. Discretion for arbitrator to make determinations public

The *Commercial Arbitration Act 2012* (which governs arbitrations under the Code) currently allows for confidential information to be disclosed only with the consent of all parties to the proceedings, or where authorised or required by a relevant law, and where the person making the disclosure gives written details of the disclosure to the parties. There are no provisions in the Code regarding the disclosure of information and therefore all information about a determination must be kept confidential unless the parties agree.

Other access regimes and undertakings, such as the Australian Rail Track Corporation's Interstate and Hunter Valley access undertakings and in undertakings made under the *Queensland Competition Authority Act 1997*, allow for discretion on whether arbitration determinations are published or kept confidential, either in part or in full.

Under the Queensland regime, the QCA can decide whether to release information, subject to the requirement that information is not released if a party's belief that releasing it would be commercially damaging is justified and releasing it would not be in the public interest. Similarly, under the ARTC undertakings, the arbitrator may publish its determination at its discretion subject to consideration of submissions by either party to the arbitration which are commercially sensitive or contain confidential information.

Assessment

While arbitrations may involve material that is commercial in confidence for the parties involved, some of the information contained in an arbitrator's determination may not be commercially sensitive and would likely be useful to other parties negotiating under the Code in the future.

In any case, it is considered that arbitrators appointed to make a determination on disputes are capable of determining which parts of a determination should be kept confidential and where there might be benefit in making information publicly available.

Table 33: Costs and benefits: discretion for arbitrator to make determinations public

Benefits	Costs
Information that is potentially relevant to other access negotiations or disputes will be available, improving the efficiency of future negotiations.	Parties may be more reluctant to divulge information if they consider it could be made public.

Recommendation

It is considered that an arbitrator making a determination under the Code should be able to determine whether information contained in the determination is genuinely commercially confidential.

Recommendation 15 – Allow for the arbitrator to use their discretion in deciding if determinations should be made public or kept confidential, having regard to submissions by the railway owner and access seeker.

How this would be implemented

A provision would be inserted into the Code to allow the arbitrator to disclose information about a determination (in part or in full) if they consider it in the public interest to do so.

The arbitrator would be required to consult with both parties before doing so and have regard to any submissions regarding the release of the information.

10.3.2. Confidentiality of information submitted to the regulator

Under the Code, the regulator cannot release, publicly or to an access seeker, any information that has been submitted to them if the railway owner has claimed it is confidential. There is also no ability for the ERA to determine whether information submitted by access seekers (or other parties) is genuinely confidential.

In contrast, other access regimes allow for the regulator to consider whether information should be kept confidential when publishing decisions or reasons for decisions. For example, under the National Access Regime in the *Competition and Consumer Act 2010*, the Australian Competition and Consumer Commission considers submissions from relevant parties before deciding what should remain confidential when they are publishing their decisions, but they ultimately have the power to determine what will or will not be published.[13] The National Gas Law allows the Australian Energy Regulator or the ERA to release information where the detriment of doing so does not outweigh the public benefit.[14]

[13] Competition and Consumer Act 2010, section 44ZZBE

[14] National Gas (South Australia) Act 2008, Schedule – National Gas Law, section 329

Assessment

Whether or not parties should be able to claim confidentiality over any information was considered by the ERA in their 2015 Code Review. Submissions from stakeholders at that time indicated that access seekers consider that primacy should be given to the transparency of regulatory processes and that confidentiality should be restricted to instances where the publication of information would be commercially damaging to the railway owner. Railway owners submitted that they should be able to require the confidentiality of documents and information provided to the regulator. The ERA concluded that the confidentiality of information in negotiations is paramount and that disclosure of costs was only necessary where a more prescriptive regime applies.

Given the changes that are being proposed in this paper and the importance of transparency to allow the ERA to consult broadly to make an informed decision regarding the regulated asset base and subsequent floor and ceiling, it is now appropriate to review the confidentiality provisions, as envisaged by the ERA.

Ensuring all non-commercially sensitive information is publicly released will also facilitate negotiations by ensuring the information available to all parties is more balanced.

Table 34: Costs and benefits: confidentiality of information submitted to the regulator

Benefits	Costs
The regulator will be able to more broadly consult and therefore will be able to make a more informed decision.	The railway owner may be more reluctant to provide information if they consider it may be released publicly.
Increased transparency will assist with negotiations.	The regulator may not be best placed to determine what information might be commercially damaging to the railway owner. However, they will consult the railway owner before making a decision.
It will ensure procedural fairness for access seekers as they will be able to understand the reasoning and facts considered by the regulator when making a decision.	

Recommendation

Following consultation with stakeholders, it is considered that the benefits of allowing the ERA discretion over confidentiality claims outweighs the potential costs.

Recommendation 16 – Allow for the regulator to use their discretion in deciding whether information submitted to them should be kept confidential, having regard to submissions by the relevant parties.

How this would be implemented

The Code would allow the ERA to use its discretion to determine whether it would be in the public interest to disclose information submitted by any party and to publish that information if they consider that it is in the public interest.

The ERA would consult relevant parties in making its decision. If, following consultation, the ERA considered information should be published but the submitting party did not want it to

be published, they would have an opportunity to withdraw that information, noting that by withdrawing it such information would not be able to be taken into account by the regulator. This would apply to any parties submitting information to the regulator, not just railway owners.

The regulator would publish guidelines that set out how claims of confidentiality would be assessed and the level of justification they consider will be necessary to substantiate a confidentiality claim.

11. Marginal freight routes

11.1. Problem

There are several rail lines, referred to as 'tier 3' or 'marginal' lines, which have been closed by the infrastructure manager since July 2014 due to limited usage. However, these are still listed in Schedule 1 of the Code and therefore remain covered by the Regime.

There is limited guidance about how access to these marginal routes should be negotiated. Particular concerns have been raised about the limited role of the regulator in price setting, timeliness and a lack of transparency.[15]

11.2. Options considered

Two options for reform were considered:

1. Removing marginal freight lines from coverage under the Code or providing a mechanism for reviewing coverage.
2. Providing greater guidance on the provision of access for these routes.

11.3. Assessment and recommendation

11.3.1. Removing lines from coverage (or providing a mechanism to do so)

While the Minister can amend the Code to add or remove lines from coverage, there is no formal process in the Regime to trigger a reassessment of the coverage of routes. Such a mechanism could make the issue of viability more transparent and could also better prevent inefficient investment in rail infrastructure where it was found that certain lines no longer satisfy the access criteria.

Assessment

Most stakeholders did not agree with any proposals to remove marginal routes from the Code as they considered this would result in less chance of accessing marginal freight routes. Some stakeholders also expressed concern that, if these routes were not covered by the Regime, they could be open to being declared under the National Access Regime.

It is agreed that marginal freight routes should remain regulated under the Regime. As was raised by several stakeholders, it is noted that the Government does not have any levers under the Code to require lines or routes to be 'handed back' to the State to be operated by someone else. While a route can be removed from coverage under the Code, this will have no effect on the 'ownership' of the line.

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[15] In 2014, the Final Report of the Parliamentary Inquiry into the management of Western Australia's freight network discussed some of the limitations of the regulatory regime for the freight rail network. In particular, it noted the limited role of the regulator in price setting, concerns about timeliness and a lack of transparency in the access application/price setting process. See: Parliament of Western Australia (2014). The Management of Western Australia's Freight Rail Network, report no. 3, Economics and Industry Standing Committee.

Table 35: Summary of costs and benefits: removing marginal routes from the Code

Benefits	Costs
The railway owner will not have to provide access under the Regime to lines considered uneconomic.	The lines could be subject to an access seeker requesting them to be declared under Part IIIA of the Competition Consumer Act. Having different access regimes applying to different parts of one network creates unnecessary regulatory burden for railway owners and unnecessary complexity for access seekers.
	It could become even more difficult for access seekers to gain access to the lines.

Recommendation

It is considered inefficient to remove lines from coverage under the Code where they are still the sole responsibility of the lessee under the lease, as this would remove the opportunity for anyone to require the lessee to provide access to the lines. As such, no recommendation is made to remove them from coverage, or provide a more formal process to trigger a review of coverage.

11.3.2. Providing guidance

The Issues Paper proposed that further guidance on access to these routes. This could include: specifying particular matters to have regard to in setting access prices (such as costs to be included in incremental cost and guidance on contributions above incremental cost); and the treatment of any payments by the Government to support the ongoing provision of these routes for pricing purposes.

Assessment

Most stakeholders agreed that there should be greater guidance on provision of access to marginal freight routes.

It is considered that the DORC approach, as set out in section 2.3.2 will provide more guidance for negotiations for access to marginal freight routes as a matter of course. This is because, as noted, it sets an incremental cost that reflects the true costs of providing access to a route given its condition. The current GRV pricing approach is not well suited to this because the incremental cost does not reflect the actual costs the railway owner incurs to provide access, but rather the average cost to maintain and operate an asset over its life, which could set unrealistic expectations for negotiations.

Improved service quality indicators (recommendation 13) and more relevant standard terms and conditions (recommendation 8a) may also assist price negotiations by reducing information imbalances and reducing the range of issues for negotiation.

As such, it is considered there would be little benefit to providing separate guidance in addition to that implicitly provided through other changes to the Regime.

Table 36: Summary of costs and benefits: guidance for marginal routes

Benefits	Costs
Providing additional guidance will mean that access seekers will have more certainty about the conditions under which they can access lines. However, it is unlikely providing separate guidance for marginal routes would provide material benefits above the guidance provided through the use of DORC and service quality indicators.	Could restrict flexibility in negotiation.

Recommendation

Given additional guidance will already be provided through other reforms, no further reforms in regard to marginal routes have been recommended.

12. Greenfield developments

12.1. Problem

The Regime focuses on established railways and does not address issues specific to greenfields railways. This means there is little guidance about how the regulator might take the particular circumstances of greenfields developments into account in applying the Regime. Issues such as uncertainty about future costs and risks can mean that some obligations, such as the costing principles, may not be feasible to develop in the early stages of a new railway development.

Additionally, foundation customers, who typically underpin greenfield railway developments, often take on different costs and risks compared to subsequent customers of the established railway. However, it is not currently clear in the Code how foundation customers should be treated and whether the regulator would accept that their access agreements may contain favourable terms and conditions to reflect the additional risks and costs they bear, for example, through rebates on access charges or priority access to expansion capacity.

12.2. Options considered

Two options for reform were considered:

1. Introducing some flexibility in applying the Code; or
2. applying the Code but acknowledging that foundation customers and subsequent customers are separate classes of users and that different treatment of foundation and subsequent customers may be required in order to reflect risks borne by foundation customers.

12.3. Assessment and recommendation

12.3.1. Relief from Code obligations

Possible amendments that were raised in the Issues Paper for allowing relief from Code obligations included:

- acknowledging that some flexibility in imposing Code obligations may be warranted having regard to the particular circumstances of the railway;
- providing for a defined 'access holiday' for greenfield railway developments (for example, specifying that access obligations will commence after a certain defined period from commencement of operations) to provide greater certainty and minimise regulatory risk for such developments; and
- allowing railway owners or developers to apply to the regulator for a binding no coverage ruling for a specified period.

Assessment

Most parties agreed with this general concept and spoke about the advantages and disadvantages of the options listed above for relieving railway owners of their access obligations quite generally. However, most preferred the idea of an access holiday over flexibility in applying the Code, so as to reduce regulatory complexity. This is congruent with

comments about consistency of the application of the Regime being important across a number of areas.

Stakeholders commented that it would be impractical to expect greenfield railway owners to allow access requests from the railway's first day of becoming operational, as the asset owner would need time to manage any practical 'teething issues' with their own operations before committing to third parties. They also commented that providing third party access during the ramp up period might hinder the foundation customer reaching optimal efficiency.

It is agreed that it will be difficult to facilitate access requests in the early stages of a greenfields railway, particularly where a foundation customer with an associated mine has not yet reached nameplate capacity. However, given the variety of purposes for which a new railway may be built, it is difficult to specify a generic timeframe or project milestone after which a railway owner could be considered to be in a position to facilitate third party access. Therefore, it is considered that any allowance for an access holiday should be assessed on a case by case basis as part of the Treasurer's consideration about whether to add a greenfields railway to Schedule 1 of the Code.

Table 37: Summary of costs and benefits: allowing greenfields railway owners relief from Code obligations

Benefits	Costs
Allowing an access free period will reduce risk and encourage investment in railways, however, this access free period can already be provided, through the Treasurer's consideration on whether to add a new railway to the Code.	It could open opportunities for the railway owner to unreasonably defer, delay and frustrate access seekers.
	Providing relief from Code obligations means a railway owner forgoes the benefits of reduced risk through customer diversification.
	If an ability to seek exemptions for certain obligations was introduced, rather than allowing for an access holiday, it may lead to inconsistent regulatory arrangements across Western Australia.

Recommendation

Putting any provisions in the Code that provide new railway owners any specific relief in complying with Code provisions is not recommended.

12.3.2. Differential treatment of foundation customers

As noted above, ensuring that rights that reflect the additional costs and risks borne by foundation customers are allowed for under the Code is important to underpin greenfields railways development. The Issues Paper proposed amending the Code to clarify that these rights are allowed for.

Assessment

This proposal received broad support from stakeholders, who highlighted that foundation customers take on more risk than subsequent customers and should be compensated for this accordingly.

While the Code does not currently prevent preferential treatment of foundation customers to reflect the additional risks they bear, it also does not clarify that this is permitted. Stakeholders expressed concern that because of this lack of clarity the Regulator may not approve favourable treatment for foundation customers, particularly when required to consider the unfair discrimination provisions. The Government proposes to clarify within the Code that favourable terms, conditions or prices for foundation customers that are proportionate to the risk they take on are permitted.

Table 38: Summary of costs and benefits: allowing for differential treatment of foundation customers

Benefits	Costs
Greater clarity on foundation customer rights will improve incentives for investment in railway infrastructure in Western Australia.	It could provide railway owners with more opportunity to attempt to provide unreasonable benefits to foundation customers, however, this will be mitigated through the requirement that the benefits provided be commensurate with the risks and costs they bear.

Recommendation

It is considered that implementing this change would improve incentives for investments in greenfields railways.

Recommendation 17 – Amend the Code to explicitly allow for differential treatment of foundation customers as a form of 'fair' discrimination.

How this would be implemented

Amendments would be made to the Code to acknowledge that foundation customers and subsequent customers are separate classes of users and that different treatment of foundation and subsequent customers may be required in order to reflect risks borne by foundation customers and that this would not constitute unfair discrimination as long as it was commensurate with the costs and risks incurred by the foundation customer. The Code would clarify that foundation customers could be granted access inside or outside the Code and that access may have been granted before the date of amendments to the Code.

Foundation rights would not be required to be approved by the ERA. However, if an access seeker believed they were being unfairly discriminated against even once foundation customer rights had been taken into account, they would be able to request an assessment in accordance with the process set out in recommendation 3.

13. Vertically integrated networks in the Pilbara

13.1. Problem

In its Issues Paper, two issues were raised regarding access to vertically integrated railways in the Pilbara:

- the different arrangements for different Pilbara railways, which has led to uncertainty about whether there will be a regulatory path for access to some lines that are not covered by the Western Australian Regime and, if so, what that may be; and
- the costs for integrated railway owners from granting third party access that may arise from losing efficiency and flexibility.

13.2. Options considered

Feedback was sought on how a haulage regime may assist with gaining access to vertically integrated railways, noting that a haulage regime would not be developed as a part of the review of the Regime. Strengthening below rail access provisions is the immediate priority, but developing haulage regulations may be re-visited in the future, should the need arise. Nevertheless, rail owners are not precluded from negotiating haulage arrangements with access seekers on a commercial basis. Stakeholder feedback on a possible haulage regime is summarised below.

13.3. Assessment and recommendation

13.3.1. Developing a haulage regime

As noted in the Issues Paper, the main elements of a haulage regime would be substantially the same as the current above rail Regime (i.e. a negotiate-arbitrate model). However, there would need to be some modifications to reflect the different nature of a haulage regime. For example, pricing would need to reflect a combined above and below rail service. Also, some of the Part 5 instruments, such as policies around train management, could be replaced or may no longer be required and while costing principles and segregation arrangements may still be required they would likely need to be modified.

Assessment

In general, stakeholders did not appear to see substantial benefits in developing a haulage regime. The main costs and benefits identified by stakeholders and the Government are outlined below. The costs and benefits of a haulage regime that are also costs of providing third party access (e.g. less flexibility for a vertically integrated operator) have been omitted from the table below, as these are not considered to be 'additional' costs on top of the costs already imposed by third party above rail access.

The main benefit identified by stakeholders is that a haulage-based access regime could allow rail owners to retain control over the technical operation of the entire rail system, facilitating optimisation and management of risks. However, the scale of these advantages remains to be clearly articulated or quantified.

Table 39: Summary of costs and benefits: haulage regime

Benefits	Costs
Could allow access seekers to obtain a haulage service that they may not currently be able to access.	May impose additional costs on railway owners that would not have otherwise provided a haulage service by requiring them to accommodate the needs of other users, thereby reducing their own above rail and supply chain efficiency (although possibly less so than having to accommodate third party rolling stock).
Compared to gaining below rail access, obtaining a haulage service could provide quicker resolution of the sought infrastructure solution, more flexible arrangements, and lower upfront capital investment requirements.	Would also involve costs in complying with the regulations for railway owners, access seekers and the regulator.
May assist the development of small deposits that would not be able to support the cost of trucking or investment in independent rail.	

Recommendation

As set out in the Issues Paper, no recommendation is made to develop a haulage regime as part of this review.

14. Consistency with National Access Regime

14.1. Problem

In the Issues Paper, concerns were raised about consistency between the Western Australian Regime and the other access regimes in Australia, particularly in relation to the interstate rail network. The different regimes applicable to different parts of the interstate network create complexity for those that operate across different jurisdictions, since they have to understand the different processes, obligations and likely outcomes from each rail access regime.

Improving consistency between the Western Australian Regime and other Australian regimes could also improve the likelihood that the Regime will be re-certified as an 'effective' access regime by the Commonwealth Treasurer, in accordance with the Competition Principles Agreement. In the NCC's 2010 assessment of the Western Australian Regime, concerns were raised about the inconsistency between the Western Australian Regime and other jurisdictions (although the Commonwealth Treasurer did decide to certify it as an 'effective' Regime).

14.2. Options considered

Three options were considered:

1. implementing recommendation 1 of the ERA's 2015 Review, which would bring interstate services offered by Brookfield Rail on the interstate route under regulations consistent with the ARTC access undertaking;
2. making other changes to the Regime to better align it with other access regimes around Australia; and
3. aligning the declaration criteria in the Act to align with the declaration criteria in the National Access Regime.

14.3. Assessment and recommendation

14.3.1. Implementing regulations consistent with the ARTC interstate undertaking

In its 2015 review of the Code, the ERA recommended implementing the requirement of the Competition and Infrastructure Reform Agreement 2006, which was that the relevant Governments would implement a simpler and more consistent national system of rail access regulation to apply to the interstate rail track from Perth to Brisbane, using the ARTC undertaking as a model. The ERA considered that the ideal outcome would be for (then) Brookfield Rail to submit an undertaking to the ACCC for administration of the interstate services under the National Access Regime.

Assessment

If the ERA's preferred approach were implemented, it would not guarantee that the undertaking submitted to the ACCC would be consistent with the one that ARTC is operating

under (now or into the future), as undertakings are submitted by individual railway owners and are subject to change from time to time.

In addition, while implementing consistent regulation on the interstate route would improve consistency with the National Access Regime, it would introduce inconsistency in rail access regulation within Western Australia. This would also cause complexity and unnecessary costs for the railway owner that would have to comply with two different regimes.

Table 40: Summary of costs and benefits: imposing regulations consistent with the ARTC undertaking on the interstate line

Benefits	Costs
Potential to reduce costs and complexity for access seekers or holders who operate across jurisdictions, however, it is uncertain whether Western Australian regulation or a new undertaking could be made to sufficiently align with the prevailing ARTC undertaking.	Having two regimes operating in Western Australia creates regulatory inconsistency within Western Australia, introducing extra complexity and regulatory burden for the railway owner that was required to comply with two regimes.

Recommendation

For the reasons outlined above, it is considered that the benefits of attempting to implement consistent regulation on the interstate route are unlikely to outweigh the costs, particularly as the changes recommended to the asset valuation method will already improve interjurisdictional consistency, if implemented. This is discussed further under the next option.

14.3.2. Improving the Regime to more closely align to a typical undertaking under the ACCC

The second option considered was to assess whether the Western Australian Regime would be improved by adopting regulatory approaches similar to the regulation imposed by the ACCC through the undertakings it has approved. This was considered through the assessment of options such as adopting a DORC based valuation method to determine floor and ceiling costs, the introduction of indicative tariffs, and the public release of more information by railway owners.

Assessment

As discussed under the relevant sections of this paper, it is considered that some of the approaches used under the National Access Regime, such as adopting a DORC methodology and standardising the minimum criteria that access seekers must meet, should be implemented in the Western Australian Regime. However, in other cases, the costs of some National Access Regime approaches were considered to outweigh the benefits and alternative options have been proposed.

It is considered that implementing the changes proposed in this paper will sufficiently align the Western Australian Regime with the National Access Regime and reduce uncertainty and complexity for access seekers, while not imposing unnecessary regulatory burden on railway owners.

No cost benefit summary has been prepared, as the costs and benefits of potential reforms have been canvassed throughout this paper.

Recommendation

Other reforms recommended in this paper should be implemented to better align the Western Australian Rail Access Regime with standard components of undertakings administered by the ACCC.

14.3.3. Aligning the declaration criteria in the Act with the declaration criteria in the National Access Regime

The Competition and Consumer Amendment (Competition Policy Review) Bill 2017 introduced, amongst other things, changes to the declaration criteria that must be satisfied for a service to become declared under the National Access Regime. As a result, the criteria in the Western Australian Act now differ from that used in the National Access Regime, as demonstrated in the table below.

Table 41: Comparison of declaration criteria in the Western Australian and National Access Regimes

National Regime	WA Regime	Explanation
That access (or increased access) to the service, on reasonable terms and conditions, as a result of a declaration of the service would promote a material increase in competition in at least one market (whether or not in Australia), other than the market for the service.	Whether access to the route will promote competition in at least one market, other than the market for railway services.	These are similar, however, the national criterion focuses on whether the effect of the declaration would increase competition, rather than just whether access, or increased access, will increase competition (as this could occur in some cases without a declaration).
Captured in the first criterion.	Whether there is not already effective access to the route.	Consideration of this criteria in the WA Regime would likely be considered under the first criteria in the national regime, therefore, when considered together, this and the first criterion are equivalent to the first criterion in the national regime.
That the facility that is used (or will be used) to provide the service could meet the total foreseeable demand in the market: • over the period for which the service would be declared; and • at the least cost compared to any 2 or more facilities (which could include the first mentioned facility).	Whether it would be uneconomical for anyone to establish another railway on the route.	Prior to these changes, the High Court ruled that the uneconomical test required the decision-maker to be satisfied that there is not anyone for whom it would be profitable to develop another facility. The amendments made now clarify that this criterion, as it exists in the National Access Regime, should be assessed as it had been applied in the past by the National Competition Council

National Regime	WA Regime	Explanation
		and the Minister, which was to avoid the unnecessary duplication of railways.
No equivalent	Whether access to the route can be provided without undue risk to human health or safety.	Railway owners covered by the Code are also subject to safety requirements imposed by the office of the National Rail Safety Regulator.
That the facility is of national significance, having regard to: • the size of the facility; or • the importance of the facility to constitutional trade or commerce; or • the importance of the facility to the national economy	Whether the route is of significance having regard to: • its length; • its importance to trade or commerce; or • its importance to the economy.	Substantively the same.
That access (or increased access) to the service, on reasonable terms and conditions, as a result of a declaration of the service would promote the public interest.	Whether access or increased access to the route would not be contrary to the public interest.	These are similar, however, the National Criterion places a positive requirement, arguably meaning that an increased amount of justification about public interest would be required to declare a service.

Assessment

Stakeholder feedback was invited as part of consultation on the Draft Decision Paper on the benefits and costs of amending the declaration criteria in the Western Australian Regime to better align with those in the National Access Regime, however, no comments were received in response. As such, it appears there is no immediate need to align the declaration criteria in the Western Australian Regime with the National Access Regime. This is likely because both declaration criteria are already very similar.

Nevertheless, it is considered there are benefits to further aligning the criteria. Firstly, it is likely that the similarity between the declaration criteria in the Western Australian Regime and the National Access Regime will be considered by the National Competition Council in any application for certification of the Regime as an effective regime. Secondly, aligning the Western Australian criterion on whether it would be uneconomical for anyone to establish another railway on the route with the new national criterion would better reflect the intent of both these criteria, which is to avoid unnecessary duplication of railways. The main reason why the national criterion was amended was to clarify its intent and avoid unnecessary disputes. Therefore, a clearer criterion could also benefit Western Australia.

The last criterion in the Western Australian Regime, on whether access to the route would not be contrary to the public interest, is likely to be preferable to the national criteria, as it may require less justification and evidence in declaring a railway. However, this criterion could be retained, along with those that are substantively the same across the two regimes.

Table 42: Summary of costs and benefits: aligning the declaration criteria in Western Australian and National Regimes

Benefits	Costs
Would increase the likelihood that the Western Australian Rail Access Regime would be certified as 'effective' by the Commonwealth.	Some Western Australian criteria may be preferable to the national criteria, however, these could be retained.
Greater clarity on the intent of the criteria.	
More certainty for railway owners and access seekers who operate across jurisdictions about what railways are likely to be subject to access regulation in the future.	

Recommendation

It is considered that the declaration criteria in the Western Australian Regime should be better aligned with those in the National Access Regime to clarify their intent. Further consultation will be undertaken before implementing specific changes.

Recommendation 18 – Align some of the declaration criteria in the Western Australian Rail Access Regime with those in the National Access Regime.

How this would be implemented

As the changes to the Code proposed in this paper do not rely on changing the declaration criteria in the Act, it is proposed to progress this independently, so as not to delay the reforms proposed to the Code.

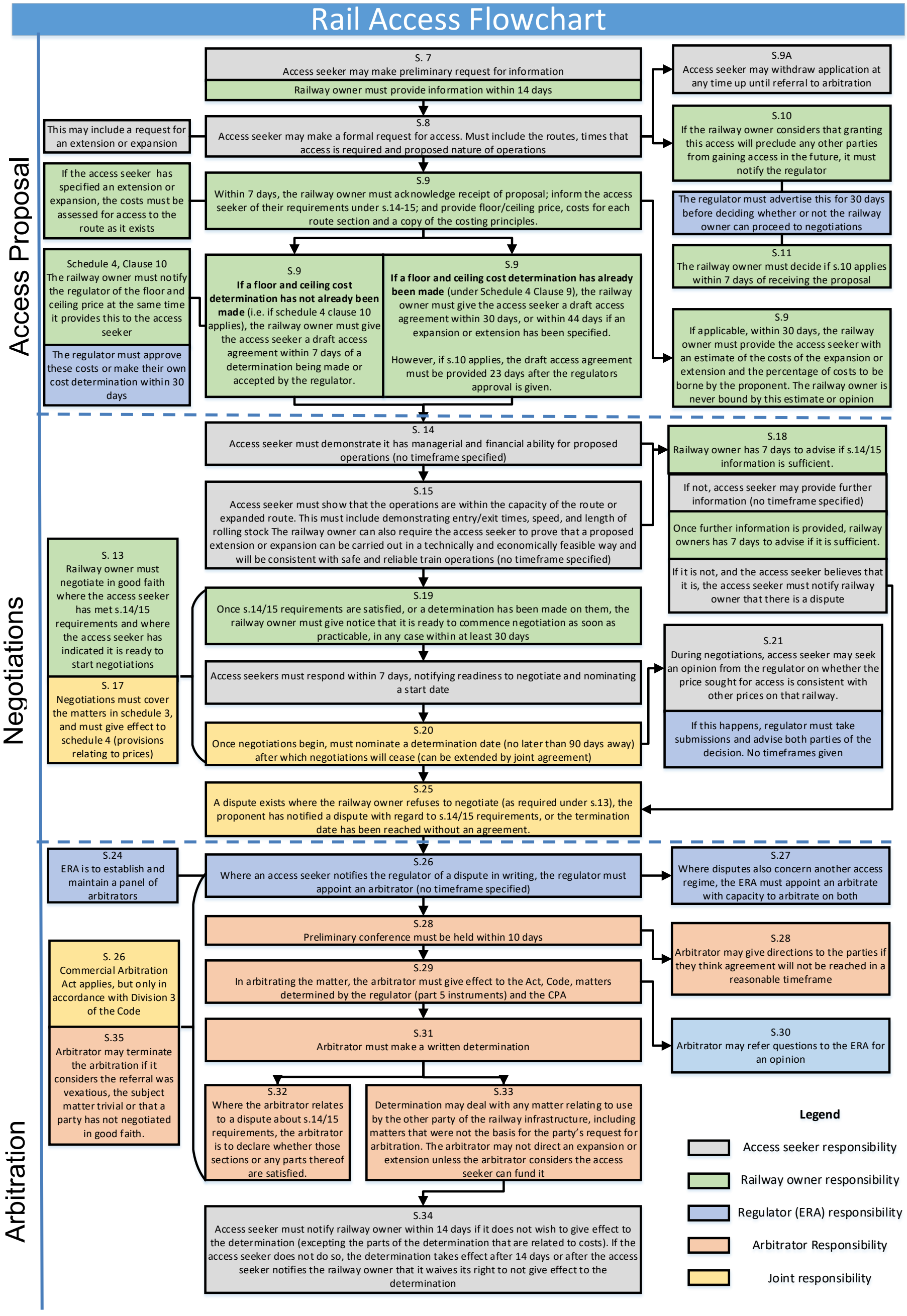
Further consultation with stakeholders before finalising changes to the declaration criteria is proposed, but a preliminary proposal is to amend only the criterion that is substantively different between the two regimes and retain all others. This would mean the current criterion in the Western Australian Regime on:

- whether it would be uneconomical for anyone to establish another railway on the route

would be changed to:

- that the facility that is used (or will be used) to provide the service could meet the total foreseeable demand in the market:
  - over the period for which the service would be declared; and
  - at the least cost compared to any 2 or more facilities (which could include the first mentioned facility).

Appendix 1 – Current Regulatory Process



Appendix 2 – ERA recommendations that will be implemented

As indicated in the 2017 Issues Paper, it is intended to implement other, less material, changes that were recommended by the ERA in its 2011 and 2015 review of the Code as outlined below.

ERA Code Review 2015
Recommendation 5 Section 10 of the Code be removed.
Recommendation 7 The term "days" in the Act and the Code be defined to mean "business days". All timeframes in the Code be adjusted accordingly. In particular, the timeframes prescribed in Part 2 of the Code ("Proposals for access") be amended to: Section 7(2) – 10 days Section 9(1) – 5 days Section 9(2) – 20 days Section 9(3a)(3)(a)(i)(I) – 20 days Section 9(3a)(3)(a)(i)(II) – 30 days Section 9(3a)(3)(a)(ii) – 15 days Section 9(3a)(3)(b) – 5 days Section 10(3) – 20 days
Recommendation 10 The Code be amended to include provisions, in place of section 26(2), enabling the following: The parties in dispute to agree upon an arbitrator(s), and this agreement is to occur within ten business days of the Regulator being notified that the proponent is in dispute with the railway owner. The proponent must notify the Regulator of the agreement of such an arbitrator(s). If the Regulator is not notified within ten working days that an agreement has been reached, the Regulator is to appoint one or more persons whose names are on a panel established under section 24 to act as arbitrators to hear and determine the dispute. The Regulator must consult with the parties in dispute prior to the appointment of an arbitrator from the panel.

ERA Code Review 2011
Final Recommendation 2 Section 7 of the Code should be amended by adding a new sub-section noting that any capacity information provided by the railway owner must be compiled on a reasonable basis consistent with the railway owner's obligation under section 16(2) not to unfairly discriminate between the proposed rail operations of a proponent and the rail operations of the railway owner.
Final Recommendation 5 Sections 52(1), 52(2), 52(3), 52(4) and 53 of the Code should be deleted as these transitional provisions are no longer relevant.
Final Recommendation 6 Schedule 1 should be amended as follows: Item 52 should be amended by replacing the words "... the railway constructed pursuant to the TPI Railway and Port Agreement" with "... the railway constructed pursuant to the TPI Railway and Port Agreement and defined as 'Railway' in that Agreement". Schedule 4 should be amended as follows: Item 50A of Schedule 1 should be added to clause 3(1)(a)(i) of Schedule 4. Clause 3(1)(a)(ii) should be amended by replacing the words "in the other items in that schedule" with "in items 1 to 48 in that Schedule". Clause 3(2) should be amended to ensure that the public consultation arrangements set out in sections 3(3) to 3(5) of Schedule 4 apply to the initial WACC determination for any new railway which comes under the Code.

Appendix 3 – Assumptions for asset valuation graphs

Generic graphs showing a hypothetical railway from the day it was built until the end of its assumed life have been produced to show the ceiling and floor change over the life of the asset. This was done for the three scenario options GRV, DORC straight line and DORC annuity.

Underpinning each scenario are the following generic cost assumptions:[16]

Item	Value Assumed	Comment
Track length (km)	100km	
Asset Values		
Total replacement cost	$6.0m per km = $600m total	
Asset lives – 100 years	30% of total	
Asset lives – 50 years	20% of total	
Asset lives – 30 years	40% of total	
Asset lives – 25 years	10% of total	
Operating and Maintenance Costs		
Average whole of life maintenance costs	1% of replacement cost or $6.0m p.a.	For GRV
Routine maintenance cost	0.6% of replacement cost p.a. or $3.6m p.a.	For DORC
Cyclical maintenance cost	0.6% of replacement cost p.a. or $3.6m p.a. commencing from year 7	For DORC
Corporate / overhead costs	0.5% of replacement cost p.a. or $3.0m p.a.	For GRV and DORC
Capital Costs		
Phase 1 replacement capex:	Starting from year 20, annual capex of 1% of replacement cost p.a. or $6.0m p.a.	
Phase 2 replacement capex:	In year 35, capex of 15% of replacement cost or $90m	Major replacement capex
Other		
Real pre-tax WACC	7.52%	
Allowable share of maintenance cost to be charged under floor price calculations	77.5%	

Source: Synergies assumptions

[16] Note: these costs are indicative for the purpose of the modelling scenario only and should not be taken as representing costs for specific railways in Western Australia.

Commentary on charts:

- DORC (annuity) approach is lower than GRV in initial years as maintenance costs are assumed to be lower than the whole of life average in initial years, but then shows an increase from year 7 due to cyclical maintenance commencing from that year
- Depreciation gradually increasing under the annuity approach to year 25 when 10% of the assets have reached the end of their assumed lives. By year 30 more assets (another 40%) have reached the end of their lives, hence the big decline. The increase in year 35 reflects the $90 million major replacement capex, but it is only slight as the annuity approach results in only small depreciation charges being recognised in the initial years of an investment's life.
- Under the annuity approach, the ROA gradually declines as the asset depreciates and by year 25 when 10% of the assets have reached the end of their assumed lives steps down. By year 30 more assets (another 40%) have reached the end of their lives, hence the big decline. The increase in from year 35 reflects the $90 million major replacement capex.
- DORC floor value shows a marginal uplift from year 7 due to cyclical maintenance commencing from that year
- From year 20 the commencement of phase 1 replacement capex causes the floor to gradually increase. This floor further increases from year 35 when the phase 2 major replacement capex is undertaken.

Appendix 4 – Cost Benefit Analysis of a new pricing mechanism for rail access in Western Australian

Cost Benefit Analysis of a new pricing mechanism for rail access in WA

FINAL REPORT

September 2019

Synergies Economic Consulting Pty Ltd
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Contents

Figures and Tables

1 Introduction

This report presents a cost benefit analysis (CBA) of proposed changes to pricing mechanisms under Western Australia's rail access regime (WARAR). In undertaking this analysis, Synergies Economic Consulting ('Synergies') has identified the nature of costs and benefits of changing from the existing Code arrangements to the proposed pricing mechanism. The analysis assesses how material each impact category is likely to be (rated as low, moderate or high) and also quantifies two benefit items that are regarded as material and that are amenable to being quantified in dollar terms.

The results should be regarded as indicative, given the difficulty of determining with certainty how many future proposals will be negotiated under the Code and outside the code, and the level of cost savings achievable under the reform, net of the costs of implementing the new regime. The results should also be interpreted as the net benefit of applying the new arrangements state-wide – that is, not limited to just the Pilbara railways.

The analysis is necessarily assumption-driven and built around our judgement of what constitutes reasonable scenarios 'with' and 'without' the proposed reform. Wherever possible we have drawn on experiences from other jurisdictions as a basis for estimating costs and benefits. Further, Synergies has taken into account submissions received from stakeholders on the draft Decision Paper[1].

Consideration has also been given to a consultant's report commissioned by the Department of Treasury ('the Department') to review Synergies' cost assumptions relating to the costs of implementing the proposed reform[2]. This report confirmed that most of the cost items in our analysis are reasonable when compared to relevant benchmarks, particularly after adjusting for contextual differences. Synergies has made minor adjustments to some cost items in this final version of the CBA model, including increasing the cost of developing standing offer tariffs and the cost of reviewing DORC valuations.

The analysis has also been expanded to incorporate the Department's proposal to include a trigger mechanism in the reforms, such that the most onerous regulatory obligations will only come into effect when they are triggered by an access seeker. Further details of how this has been modelled are provided below.

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[1] Submissions containing comments on the CBA were made by Fortescue Metals Group, Roy Hill Infrastructure, CBH and Arc Infrastructure

[2] Trac Partners (2019) *Substantiation of costs of implementing changes to the rail access regime in WA*, a report prepared for Department of Treasury, 23 June 2019

1.1 Features of the proposed pricing mechanism

The proposed package of changes comprises:

- establishing a regulatory asset base (RAB) value and roll-forward for each railway (subject to this requirement being triggered – see below);
- using a Depreciated Optimised Replacement Cost (DORC) method for calculating the asset values (in circumstances where a RAB is required); and
- adopting pricing guidance in the form of 'standing offers'.

1.1.1 A regulatory trigger for railways where there are no access seekers

As part of the proposed package, a trigger mechanism will be introduced to determine whether the new pricing mechanisms will be implemented for each railway.

The trigger would work as follows: For railways where there were existing users (in addition to the railway owner) or where an access seeker was in negotiations with the railway owner for access, the trigger would be activated immediately. However, for those railways where there are no access seekers, the railway owner would not have to develop a RAB or roll it forward until future access seekers triggered it.

An access seeker could activate the regulatory trigger by indicating to the Economic Regulation Authority (ERA) that they were interested in accessing a rail line, and the ERA would then determine whether an access request was likely. If the ERA considered it was likely, it would be able to direct the railway owner to establish a RAB.

In practice, the trigger provision will have the effect of exempting Pilbara railways from the obligations until they are triggered. The large majority of the south west railway network will be immediately required to establish a RAB because most rail lines either already have operators or are the subject of access requests that are currently being negotiated. Although the obligations may not be immediately triggered for two or three small rail lines in the south west where there are currently no operators or access seekers, the exclusion of these lines would be immaterial for the overall costs for the south west network.

1.1.2 Comparison of the proposed reform to current arrangements

The key features of the reform package that differentiate it from the current regime (or the Base Case) are summarised in Table 1.

Table 1 Key features of the new pricing mechanism

Current pricing mechanism	Proposed pricing mechanism
Implementation and maintenance of RAB	

Not applicable	**South west railway network and circumstances in which the trigger is activated for Pilbara railways:**
	• Update Costing Principles to reflect change to DORC methodology, principles for RAB establishment and principles for ongoing RAB rollforward
	• Calculate initial DORC/RAB, which will require
	  • Railway owner to propose DORC value
	  • Economic Regulation Authority (ERA) to procure consultant review of DORC value
	  • ERA consultation process
	  • ERA final determination
	• Annual RAB roll-forward by railway owner, which will require
	  • Development of internal 'regulatory asset book'
	  • Annual update of internal 'regulatory asset book'
	• Five year ERA review of RAB rollforward, which will require
	  • Review of compliance with roll forward methodology
	  • Prudency and efficiency review of capex (may be for selected projects only)
	Pilbara railways – trigger not activated
	  • Update Costing Principles to reflect change to DORC methodology, principles for RAB establishment and principles for ongoing RAB rollforward

Pricing guidance	

• Some pricing guidance is provided in Clause 13 of Schedule 4.	**South west railway network and circumstances in which the trigger is activated for Pilbara railways:**
	• Railway owners will be required to develop and maintain standing offer tariffs where there is one or more actual or potential operators on a line with similar freight tasks
	• The ERA will be required to assess when the criteria for a standing offer tariff is met. The process will include:
	  • the ERA assessing services against criteria
	  • consultation process
	  • final determination on whether services meet criteria
	• Where the criteria are met, the railway owner will be required to develop a standing offer tariff consistent with the pricing guidelines set out in the Code
	  • there will be no requirement for the standing offer tariff to be reviewed and endorsed by the ERA
	Pilbara railways – trigger not activated
	No requirement for standard offer tariffs to be developed.

Specific access proposals	

• For each access proposal, ERA must assess total and incremental costs based on gross replacement value (GRV) method, which requires:
  • Assessment of the GRV of the route
  • Assessment of efficient whole of life operating and maintenance costs for the route
• Process for assessing total and incremental costs for access proposals includes
	South west railway network and circumstances in which the trigger is activated for Pilbara railways:
	• For each access proposal, ERA must assess total and incremental costs based on the building block method (BBM) method, which requires:
	  • Adoption of RAB value for the route
	  • Assessment of forecast efficient operating, maintenance and capex costs for term of proposal

Current pricing mechanism	Proposed pricing mechanism

• Railway owner to provide its assessed GRV values and operating and maintenance costs
• ERA to procure consultant review of GRV values and operating and maintenance costs
• ERA consultation process
• ERA final determination
	• Process for assessing total and incremental cost for access proposals
	  • Railway owner to provide its assessed RAB roll forward and forecast operating, maintenance and capex costs
	  • ERA to review RAB roll forward
	  • ERA to procure consultant review of forecast operating, maintenance and capex cost
	  • ERA consultation process
	  • ERA final determination
	Pilbara railways – trigger not activated
	• Not applicable (no access proposals, by definition)

1.2 Cost benefit analysis scenarios

In this report, the costs and benefits of the proposed reform are evaluated for two different scenarios:

- A 'standard scenario' in which it is assumed that the regulatory trigger for all railways is activated in the first year of the reforms being introduced, and thus requires all railway owners to developed a RAB and subsequently maintain it, with a RAB review being undertaken every five years by the ERA. This would apply in the following situations:

  1. Where a party was operating on a route or line, regardless of whether access had been agreed inside or outside the Code.

  2. Where an access seeker was in negotiations with a railway owner for below rail access, either inside or outside the Code.

  3. Where a future access seeker asked the ERA to require the railway owner to meet these obligations, and the ERA considered an access request was likely.

- An 'alternative scenario' in which no access is sought to Pilbara railways over the 20 year timeframe for the analysis, thus exempting Pilbara railway owners from the need to establish RABs and standing offers.

These two scenarios can be regarded as 'book-ends' within which a potential outcome may lie. In the absence of knowing when and if access will be sought, these scenarios provide a suitable frame of reference for evaluating the magnitude of costs and benefits that may prevail as a consequence of the proposed reform.

The report is organised such that the standard scenario is presented first. A later section (section 5) is devoted to the alternative scenario.

2 Costs

Adoption of the new pricing regime will give rise to a number of additional costs, both at the initial start-up phase and ongoing.

Some of these costs will arise irrespective of whether there are any access seekers, and are regarded as 'fixed costs' of the regulatory reform. These costs comprise:

- amendment of costing principles; and
- reform implementation costs, which include costs to government of regulatory amendment and costs to railway owners of becoming familiar with the new arrangements.

For the Pilbara railways, the scope for additional costs to arise will depend on whether or not access is sought, and the number of project proposals in a given year. An access application will trigger the following costs:

- development of a RAB and subsequent maintenance/roll forward of the RAB
- preparation of pricing guidance (standing offers); and
- assessment of specific proposals.

In the case of the south west railway network, it is assumed the above costs will arise regardless of whether an access application has been lodged, as the large majority of the network will be immediately triggered to comply with the new regulatory obligations.

In this report the fixed and variable costs of the new arrangements are evaluated as 'net additional costs', relative to current arrangements. We examine each cost in turn.

2.1 RAB development and maintenance

This cost item includes the additional costs to a railway owner of developing, and ERA approving, the initial RAB value. We assess this cost as being 'moderately material'. Specifically, it will include the following components.

2.1.1 Cost of amending costing principles

Each railway owner already has in place established costing principles that have been developed and approved by the ERA in accordance with the requirements of the WARAR. The existing WARAR requires railway owners to prepare a statement of the principles, rules and practices that are to be applied and followed by the railway owner:

(a) in the determination of the capital and operating costs relevant to the calculation of floor and ceiling prices; and

(b) 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.[3]

As the existing costing principles are based on the capital costs being assessed using the GRV methodology, and the operating costs being assessed using an efficient whole of life cost (excluding major periodic maintenance costs), the railway owners' costing principles will need to be amended. However, this change only affects some aspects of the costing principles, with the remainder of the existing costing principles continuing to be applicable. Therefore, it is likely that the time and cost required to amend the costing principles will be less than what was required to originally establish the costing principles.

A regulatory review does not usually impose a consistent workload on each participant over the review period. For example, there will be a higher workload on the railway owner in the period of developing the amendments to the costing principles, but significantly less once the regulator receives the amendments and begins its process of assessment. Once a draft determination is released, the regulator's workload will significantly reduce, but the railway owner will need to dedicate additional resources to respond. The regulator's workload will increase again once submissions have been received and it is required to finalise its determination.

In this context, the estimated costs for this cost item comprises the following:

Internal resource costs for ERA, railway owners and other stakeholders

- It is anticipated that the process of amending the costing principles for the three railway owners could be complete within a six month period, assuming costing principles for all three railway owners are amended at a similar time. Within this time period, it is estimated that each railway owner would require, on average, 0.5 FTE for 3 months, and for ERA a total of 1.0 FTE for 3 months.
- Costs for other stakeholders inputting into the ERA's process are assumed to be, in aggregate, 0.5 of an FTE for 3 months.
- For the purposes of the CBA, labour costs are priced at an annual salary rate of $165,000 for ERA and $220,000 for the private sector (railway owners and stakeholders).

[3] WA Railways (Access) Code, Clause 46(1)

Consultancy costs for ERA and railway owners

- Consultancy services are assumed to be required to provide access to specialist expertise, as well as to manage the peakiness in workloads associated with a regulatory process. Consultancy costs are assumed to be double the internal resource costs for both railway owners and ERA.

We note that not all railway owners will choose this resourcing method for the development of amendments to their costing principles. In particular, if the railway owner has internal resources with required expertise, it may not require external consultancy costs. We note that, in this case, the estimated railway owner costs would be equivalent to 1.5 FTEs for three months.

2.1.2 Cost of developing RAB

In order to develop a RAB, it will be necessary for each of the railway owners to procure a DORC valuation of their railway network, and for this valuation to be reviewed and accepted by the ERA.

This cost item comprises the following:

Consultancy costs for railway owners to develop DORC valuation

- There will be significant upfront cost for a DORC valuation, given the need for an experienced valuer to establish a valuation framework, identify the type of assets that are included in the railway and develop an estimate of the current replacement cost for these asset types;
- The valuation will then generally use the organisation's asset register and apply the current replacement cost to each of the assets identified in the register in order to develop a current replacement cost of the entire railway. As the railway gets longer, there is some additional cost in determining this value, simply because there is a larger set of assets that need to be costed. But provided that the nature of the assets is generally consistent across the railway, then this additional cost for additional route length is likely to be relatively modest;
- In order to assess depreciation, it is necessary for the engineer to assess the remaining useful life of the assets, which should have regard to their current age and condition. This assessment will take longer for a longer length of railway, as it is necessary to form this judgement at an asset level (or at least at the level of a functional group of assets eg. the aggregate of assets that make up a signalling system at a given location);

- We have estimated the consultancy costs for each railway owner to be on average $150,000 plus $125 per kilometre of railway. This cost estimate is not intended to imply that there is a strict formulaic relationship between track distance and cost of DORC valuation, but rather is intended to be a means of scaling the likely costs for the Pilbara railways (with distances of 350-500km) and Arc Infrastructure's network of 5,500km. Given the approximate network size for each railway owner,[4] this would result in an assumed cost for Roy Hill Infrastructure (RHI) of $193,750, The Pilbara Infrastructure (TPI) of $212,500 and Arc Infrastructure of $837,500.
- We consider these consultancy cost estimates to be at the upper end of the likely cost range given confidential information provided to WA Department of Treasury through its consultation process in relation to the cost of undertaking DORC valuations of rail infrastructure, together with our experience in the conduct of DORC valuations of rail infrastructure.

Consultancy cost for ERA to review DORC valuation

- The ERA's role is to review the valuation, and therefore its costs would be expected to be lower than those incurred by the railway owners. We have assumed that the consultancy costs for the ERA's review of DORC valuations will be, on average, 50% of the cost of cost incurred by the railway owner in developing the DORC valuations (ie. $75,000 plus $62.50 per kilometre of rail length).

Internal resource costs incurred by the ERA and railway owner and other stakeholders

- Based on Synergies' experience in preparing DORC valuations, we estimate these costs to be:
  - 2.0 FTE for 6 months for each of the Pilbara railway owners;
  - 4.0 FTE for 6 months for Arc Infrastructure (given its much larger network); and
  - 0.5 FTE for 6 months for ERA (per review of a railway owners' DORC).
  - costs for other stakeholders inputting into the ERA's process are assumed to be, in aggregate, 0.5 of an FTE for 3 months.

2.1.3 Cost of annual asset roll forward

The principles upon which the asset base will be rolled forward will be established in the amendments to the costing principles. Under the proposed amendments to the

[4] This is an average across the three rail owners (i.e. Arc Infrastructure has a railway network of approximately 5500km, The Pilbara Infrastructure has approximately 500km, and Roy Hill has approximately 350km).

pricing framework, the annual roll forward of the RAB is then an internal process only. The ERA is not required to review or approve the annual roll forward. It will, however, be necessary for the railway owners to establish robust processes for their RAB roll forwards so that, at the ERA's five year review of the RAB, they can demonstrate that they have appropriately followed the process set out in their costing principles.

The railway owners will therefore need to develop systems to record the RAB, and then maintain this on an annual basis. The RAB system will need to be a form of asset register, which identifies each asset and maintains information on that asset including the replacement value, life, age and depreciated value. The annual roll forward will need to include new assets, remove life expired assets and recalculate depreciated value.

This cost has been estimated based on Synergies' experience in implementing RAB roll forward processes in regulated railways, and comprises:

- the one-off cost to initially develop the system, which will be incurred by each railway owner, estimated to be $100,000 plus $100/km of railway; and
- internal resource cost for each railway owner to maintain its RAB on annual basis estimated 1.0 FTE for 3 months.

2.1.4 Cost of five year roll forward review

At the end of five years, the ERA will be required to review and confirm that the railway owners have rolled forward their RAB values in accordance with the requirements of the Costing Principles. The key elements that the ERA will be likely to consider are:

- to review the systems used by the railway owners to ensure that the asset information has been maintained in a robust way; and
- some form of review of the prudency and efficiency of capital expenditure that has been included in the RAB.

We anticipate that the extent of ERA review of the prudency and efficiency of capital expenditure may be relatively limited, particularly for the Pilbara railways. This reflects that the railways have strong incentives to ensure their future capex is efficiently and prudently incurred as the cost of suppling the service to themselves materially exceeds any likely third party revenue and, and they are directly competing with other supply chains. As a result, it is likely that a desktop review of the railway owner's compliance with investment processes would be sufficient.

Consequently, we have estimated this cost as likely to comprise:

- internal resource costs for each railway owner, which are estimated to be 1.0 FTE for 3 months;
- internal resource costs for ERA to be 0.5 FTE for 3 months;
- consultancy costs, which are assumed to be double the internal resource cost for railway owners and ERA;
- costs for other stakeholders inputting into the ERA's process are assumed to be, in aggregate, 0.5 FTE for 3 months.

Again, we note that not all railway owners will choose this resourcing method for the progressing their roll forward review. In particular, if the railway owner has internal resources with required expertise, it may not require external consultancy costs. We note that, in this case, the estimated railway owner costs would be equivalent to 3 FTEs for three months.

2.2 Pricing guidance

The element of the pricing guidance changes that is likely to involve moderately material costs is the development of standing offer tariffs.

Standing offer tariffs will only be developed where the ERA determines that they are required. The criteria applied in making this determination is that standing offer tariffs may be required in any situation where there are one or more actual or potential operators on a route with similar freight tasks, with similarity in freight tasks assessed in relation to train length, axle load and freight type.

These criteria are currently met in relation to intermodal traffic on the interstate route, therefore we have assumed that a standing offer tariff for these services would be required immediately. Beyond this, there is significant uncertainty as to what services would meet the criteria for a standing offer tariff.

Information provided to WA Department of Treasury through its consultation process indicates that stakeholders are uncertain whether any additional standing offers will be required on the south west freight network. Reflecting this, we have assumed that there will be only one further standing offer tariff required for the south west freight network.

For the Pilbara networks, it is likely that any interest in access on the TPI and Roy Hill Infrastructure (RHI) networks would be for services that are similar to the existing iron ore services, and would trigger the standing offer tariff criteria. However, the likelihood of new users requiring access to the network in accordance with the rail access regime (rather than commercially negotiated access to a haulage service) is uncertain. However,

we have conservatively assumed that one standing offer tariff would be required for each of these railways.

We have therefore assumed that a total of four standing offer tariffs may be triggered (two on the south west freight network and one on each of the TPI or RHI networks). We have assumed that these will be progressively triggered, and so have assumed the development of these standing offer tariffs over a six year period.

Standing offer tariffs are published tariffs, but do not require regulatory review or approval. Therefore, the costs associated with developing standing offer tariffs include:

- the costs associated with the ERA assessing when the criteria for standing offer tariffs are met; and
- The costs to a railway owner developing standing offer tariffs.

These cost items are estimated as follows:

- for the ERA's assessment of the criteria for standing offer tariffs, given the nature of the criteria, we consider that this will only require a relatively brief, factual review of the circumstances (that is, is there a potential operator for a similar service). Therefore, we have assumed that this assessment will require internal resources for each of the ERA, the railway owner and one other stakeholder (the potential operator), estimated to be 0.5 FTE for each party for two months for each assessment;
- for the purpose of developing the standing offer tariffs, while no ERA review and approval is required, railway owners have highlighted that these tariffs are commercially significant and will require senior management review and approval. As a result, we have estimated the costs for developing these tariffs to be 1.0 FTE for six months, with additional external consultancy costs double the internal costs. Synergies notes that RHI has estimated the process of developing a standing offer tariff would be approximately $420,000, and would require 2.0 FTE for six months, but has not assumed any external consultancy resources will be required. While this reflects a different resource allocation and cost per FTE than we have assumed, our cost estimate is within approximately 20% of that cited by RHI.

2.3 Specific proposal costs

2.3.1 Costs for specific proposals under proposed regime

Under the proposed regime, where a specific access proposal is made, the ERA will be required to approve the floor and ceiling prices applicable for that proposal. In order to

do this, it will be necessary for the ERA to review and approve maintenance, operating and future capex costs for the proposal. Unlike under the current regime, there would be no cost for assessing asset values in relation to a specific proposal, as this will be based on the established RAB value (the costs of which are already accounted for in sub section 2.1).

We anticipate that, as part of its normal asset management processes, a railway owner would have current assessments of its forecast maintenance, operating and capex costs. As part of responding to an access application (whether within or outside the rail access regime) we would expect that a railway owner would consider how this access application would be likely to affect its forecast costs. Therefore, we consider that the requirement for the railway owner to assess the forecast costs for a specific proposal is not an additional cost imposed on a railway owner as a result of proposed regime.

However, the requirement for these forecast costs to be reviewed and accepted by the ERA is an additional cost that results from the proposed regime.

These costs (on a 'per proposal basis') would include:

- external consultancy costs to the railway owner associated with demonstrating efficiency of forecast costs:
  - there will be significant upfront costs for a consultant to undertake a review of cost efficiency, including gaining an understanding of the railway owner's asset management systems, strategies and practices, current asset condition and costing process and methodology. The extent of these costs will then vary depending upon the extent of the network for which access has been sought;
  - for the purpose of this CBA, we have assumed that a cost of a detailed efficiency review for an average access proposal will be $150,000. This broadly aligns with Synergies' experience of the typical costs of undertaking regulatory cost efficiency reviews in other infrastructure sectors;
- consultancy costs to ERA for the purpose of assessing the efficiency of forecast costs:
  - the ERA's role is to similarly undertake a review of the efficiency of the forecast costs, and therefore its external consultancy costs would be expected to be similar to those incurred by the railway owners. We have therefore also assumed that cost to the ERA will $150,000 for an average proposal; and
- internal resource costs for ERA to review the costs (estimated for each party to be 1.0 FTE for 3 months).

Under the proposed regime, we have assumed that an increased number of proposals are made under the Code, as discussed in section 3.1.1. We consider that the increased

number of proposals being made will allow for the development of economies in the assessment of specific proposals. This will reflect both the railway owners and the ERA establishing processes and precedents to guide the review of costs. As a result, we have assumed that, after four reviews have been conducted, the costs associated with the reviews will reduce by 20%.

2.3.2 Costs for specific proposals under Base Case

The new costs listed above will be moderate but will be offset by the costs incurred under the Base Case, given that under existing arrangements there is a requirement to assess floor and ceiling costs for each proposal on a 'whole of life average' basis (noting that under the new regime the main difference is that actual forecast costs need to be developed based on the age and condition of the asset).

While there have been only limited actual proposals under the existing Code, Synergies considers that it is possible to form a view on the relativity of the costs of undertaking the assessment required under the existing Code compared to that required under the proposed regime.

For example, while the required cost assessment under the existing Code covers a broader scope of costs than under the proposed regime, as it includes a GRV assessment as well as operating and maintenance costs, it requires less detailed analysis of the railway owner's actual systems, practices and costs, as it is based on benchmark costs only and does not consider the age and condition of the railway owners' assets.

Therefore, we consider it is likely that the costs under the Base Case for assessing a broader scope of costs for a specific proposal, but to a lesser detail, will be similar to the costs under the proposed regime of assessing a narrower scope of costs for that proposal, but in greater detail. As a result, we have assumed that the following costs would be incurred under Base Case:

- external consultancy costs to the railway owner for assessing GRV and efficient whole of life operating and maintenance costs of $150,000 per proposal;
- external consultancy cost to ERA for reviewing GRV and efficient whole of life operating and maintenance costs of $150,000 per proposal; and
- internal resource costs for ERA and the railway owner – estimated for each to be 1.0 FTE for 3 months.

Given the limited number of Code based proposals under the base case, we have not assumed that significant economies are generated in the assessment process.

2.4 Implementation costs

The majority of the implementation costs for the new regime are addressed in sections 2.1 and 2.2. However, in addition to the costs of implementing specific aspects of the proposed regime, there will be some general learning costs for industry to become familiar with the new regime and the CBA must also take into account the future cost to government of implementing the required policy and regulatory changes (ie. any costs incurred by government to date are treated as sunk and not included in the analysis).

Estimates of these two cost items are as follows:

- *Learning costs:* We have assumed that each railway owner would assign 0.5 FTE for 1 month to familiarise with the new regulatory process, plus engage legal advice at a cost of $50,000. These estimates are based on the observation that the proposed frameworks are reasonably consistent with approaches used nationally. Further, while the railway owners may not have specific direct experience with (and existing knowledge of) these frameworks, there is a large amount of information that can readily be accessed on the way in which these frameworks are typically implemented.
- *Policy and regulatory amendment costs*: We have assumed 2 FTEs for 6 months at a salary level of $165,000 per annum.

Section 4 contains dollar estimates of the four main categories of costs described in this section, together with a profile of when these are incurred over time.

3 Benefits

On the benefit side of the ledger we identify five main types of benefits:

- Lower negotiation costs under the Code
- Lower cost of disputes, due to fewer disputes under the Code
- A bring-forward of projects, through less protracted negotiations
- Lower risk of 'good' projects not coming to fruition
- Increased durability of negotiated prices

We have made a qualitative assessment of the materiality of these benefits, which is presented in Table 2 below. Each of the benefit items is discussed further beneath the table.

Table 2 Qualitative assessment of the materiality of each benefit item

Benefit item	Materiality rating	Rationale
Lower negotiation costs	★★	Lower costs under Code due to standing offer tariffs and clearer price guidance regarding impact of age/condition of assets
Net cost saving due to fewer disputes under the Code	★	Moderate, but offset by potential for higher number of negotiations under code
Bring-forward of projects due to reduced negotiation timeframes	★★★	Faster development for a proportion of new projects due to shorter negotiation/dispute resolution time
Lower risk of good projects not coming to fruition	★★	Under base case, a proportion of delayed projects will not proceed due to loss in investment window. Fewer delays under the new regime will mean fewer projects are abandoned.
Increased durability of negotiated agreements	★★	Access agreements made under the Code are likely to be more 'durable' and more 'robust' in being able to address a range of future circumstances, thus resulting in cost savings from not having to re-negotiate terms and conditions of the agreement

3.1 Lower negotiation costs

3.1.1 Negotiations under current regime

In order to determine the likely cost savings attributable to lower negotiation times and fewer disputes under the proposed reforms, it is first necessary examine the historical

frequency of proposals negotiated under the Code and outside the Code. Over the last approximately ten years:

- there have been three proposals made under the Code, two in relation to the Arc Infrastructure network, and one in relation to the TPI network;
- in the period from 2006-2014, Brookfield Rail negotiated 20 rail access agreements outside the Code[5] - it would be expected that, in addition to the entities that successfully negotiated rail access agreements outside the Code, there would be a number of access negotiations that did not proceed to agreement; and
- TPI reports that, in addition to the proposal made under the Code, five entities expressed an interest in gaining access[6].

While it is not possible to precisely identify the historic incidence of negotiations based on this information (as no information is available on the number of Brookfield Rail access negotiations that commenced outside the Code but did not proceed, and it is uncertain whether the entities that expressed an interest in TPI's railway were interested in access to the rail network or to a haulage service), we consider that this information supports an estimated historic incidence of negotiations generally in the order of:

- one proposal under the Code each three years; and
- three proposals per year outside the Code.

We adopt these numbers for the Base Case. That is, in the absence of implementing the reforms, this pattern of proposals is assumed to continue into the future.

Submissions received from RHI and Fortescue Metals Group (FMG) queried the basis for this assumption. RHI has taken the view that it cannot be assumed that there will be any applications for access, either inside or outside the Code,[7] based on its view that historically there has only been one access proposal under the Code, which has not progressed. Similarly, FMG has raised concerns that Synergies' assessed incidence of negotiations is an order of magnitude too high[8]. In making these statements, RHI and FMG appear to have focussed only on access proposals relating to Pilbara railways. Noting the revised regulatory framework will have state wide application, we consider

[5] Economics and Industry Standing Committee, The Management of Western Australia's Freight Rail Network, Report No. 3, October 2014

[6] Fortescue Metals Group, Submission to Draft Decision Paper, 11 March 2019

[7] Roy Hill Infrastructure, Submission to Draft Decision Paper, March 2019

[8] Fortescue Metals Group, Submission to Draft Decision Paper, 11 March 2019

it reasonable to assume that the historic incidence of negotiations, including both the Pilbara and freight railways, will continue.

While there are only few instances of negotiations occurring under the Code to date, it is clear such negotiations have not been quickly resolved. For example:

- the negotiation between Arc Infrastructure and CBH has still not been resolved more than five years after the initial proposal was lodged in December 2013; and
- Brockman Mining initially made a proposal to TPI in May 2013. FMG/TPI challenged aspects of the ERA's decisions in relation to this access proposal, with the resulting final determination of floor and ceiling costs not issued until December 2014, more than 18 months after the date of the initial proposal. TPI's legal challenge to the validity of Brockman's access proposal was dismissed in March 2016, nearly 3 years after the initial proposal.

This history indicates that, to date, the Code framework has only been invoked in situations where the parties are not likely to be able to easily commercially resolve access, and therefore the likelihood of dispute is high. Having regard to this history, and noting that straightforward negotiations appear to be resolved outside the Code, it appears that negotiations under the Code have historically had a high likelihood of dispute and have continued over extended periods. We have therefore assumed an average negotiation period of 3 years under the existing Code.

3.1.2 Negotiations under new regime

The new regime is expected to result in negotiations being completed more quickly under the Code, and with a lower likelihood of negotiations under the Code being referred to dispute, thus resulting in cost savings to project proponents. The main factors that will contribute to speeding up negotiation timeframes include:

- the utilisation of standing offer tariffs where criteria are met; and
- clearer guidance regarding the impact of age and/or condition of assets on asset value.

The expectation that access negotiations under the Code will be completed more quickly has been confirmed by CBH, one of the few access seekers who have navigated the Code framework to date. CBH considers that the new timelines and clearer guidance will reduce negotiation times, particularly in the event of a dispute.

Evidence under Aurizon's public reporting of time taken for negotiations shows that, under that regulatory framework, negotiations typically take well under 6 months.[9] While the absence of regulator approved indicative tariffs will mean that negotiations are unlikely to be this short, the inclusion of established DORC values and standing offer tariffs will be likely to significantly reduce negotiation period. We anticipate that negotiation times could be reduced, on average, by 1.5 years for each access agreement that is negotiated under the Code. In turn, this will lead to resource cost savings in terms of professional time spent by the proponents and regulator engaging in the negotiations. The benefits are assessed as being 'moderately material'.

With the proposed changes to the regulatory framework, Synergies anticipates that simple access requests are likely to continue to be negotiated outside the Code, but that some more complex negotiations will be likely to benefit from the stronger pricing guidance – and shorter negotiating periods - offered by the amended Code. As a result, while the total number of proposals for access will be expected to remain broadly unchanged, the proposed changes to the Code may mean that more of these more complex negotiations will occur under the Code. This will be likely to mean that the average time required for negotiations outside the Code will also reduce.

Therefore, while cost savings are likely on 'per proposal' basis, it is possible that the aggregate annual cost of negotiations under the Code (i.e. across all proposals) will increase under the new arrangements if the access pricing mechanism catalyses a significant increase in the number of proposals being negotiated under the Code (with a corresponding reduction being negotiated outside the Code).

Table 3 illustrates this potential outcome. Under the assumptions presented in the table, there is an aggregate increase in negotiation costs under the Code (relative to current), while there are substantial reductions in aggregate negotiation costs outside the Code due to:

- fewer proposals negotiated outside the Code; and
- a 50% reduction in average negotiation times outside the Code, due to many of the more complex proposal now being negotiated under the Code.

We have used an average negotiation cost of $1,320,000 for each proposal *per year of negotiation* under both the Code and outside the Code. This assumes that access seekers and railway owners will each apply 1.0 FTE of internal resource per year of negotiation

[9] Aurizon Network Annual Compliance Report 2017-18 (see https://www.aurizon.com.au/what-we-deliver/network/network-downloads#reports---qca)

(equivalent to $220,000 per firm), plus incur consultancy fees of twice this amount (i.e. $440,000).

The cost assumptions in Table 3 have been adopted for the CBA (see section 4).

Table 3 Estimated change in negotiation costs under the new arrangements

	Current	New arrangements	Change in cost
INSIDE CODE			
Number of proposals per year	0.3333	1.3333	
Negotiation time per proposal (years)	3.00	1.50	
Unit cost of negotiation ($/proposal) per year of negotiation	$1,320,000	$1,320,000	
Aggregate negotiation costs ($/yr)	$1,320,000	$2,640,000	-$1,320,000
OUTSIDE CODE			
Number of proposals per year	3	2	
Negotiation time per proposal (years)	1	0.5	
Unit cost of negotiation ($/proposal) per year of negotiation	$1,320,000	$1,320,000	
Aggregate negotiation costs ($/yr)	$3,960,000	$1,320,000	$2,640,000
NET COST SAVING			**$1,320,000**

Source: Synergies' assumptions

3.2 Lower cost of disputes

As noted above, it appears that negotiations under the Code have historically had a high likelihood of dispute, with two of the three Code proposals either being referred to arbitration or being subject to legal challenge.

We note that under rail access regimes elsewhere in Australia where there is greater consistency around the negotiation process and pricing methodologies and relatively more guidance given on the acceptable pricing methodology, there is a very low incidence of dispute. We are not aware of any rail access negotiations being referred to dispute in other rail access regimes over the last ten years. While it may not be the case that the new pricing arrangements provide sufficient guidance for all disputes to be avoided, we consider that, owing to the same factors referred to above, the new regime is also expected to result in lower incidence of costly dispute and legal challenge, for every proposal that is negotiated under the Code.

While the probability of a dispute arising under the Code is expected to be lessened on a project-by-project basis, we expect that under the new regime there will be a greater proportion of proposals negotiated under the Code, which will may offset the cost savings. We therefore assess the net cost savings to be likely to be of 'low materiality'.

For example, under the historic incidence of negotiations within the Code, while on average only one negotiation under the Code has occurred each three years, disputes or legal challenges have occurred in two out of the three Code based negotiations. This would result in, on average, one dispute each 4.5 years.

We have assumed that the changes to the Code may result in an increase to four negotiations under the Code each three years. If one in six of these negotiations were to be referred to dispute, this would still result in, on average, one dispute each 4.5 years.

This indicates that the expected cost savings from lower risk of disputes per proposal may only be small or neutral in aggregate terms because under the new arrangements there will be more proposals being negotiated under the Code.

3.3 A bring forward of projects

Faster negotiation timeframes will, on average, mean that the commencement date of projects can be brought forward. This will deliver economic gains to the access seeker through the bring forward in commercial revenues for the project and reduced capital holding costs. It will also bring forward the timing of a new revenue stream for the access provider in terms of payments for access to infrastructure.

We assess the 'bring forward' effect as being the most material benefit of the proposed pricing mechanism, which can also be quantified relatively easily. For the purpose of our modelling (see CBA in next section) we have examined the value of reduced holding costs on capital associated with new resources and infrastructure projects (or for that matter, any projects that require an access agreement and involve a large capital outlay). The value of the bring-forward on these projects is calculated at a rate of 7% per annum on the capital investment. Further, it is assumed that:

- 30% of new projects will experience a bring-forward of 1.5 years (it is assumed that not all projects will be brought forward because there are often situations, particularly for major resource projects, in which other approvals must be secured that may be of equal or greater importance in terms of influencing the timing of project commencement);
- one third of proposals received are new projects[10];
- 80% of proposals negotiated under the Code reach agreement; and

[10] This assumption is consistent with Brookfield Rail's historic incidence of negotiations, where it has been reported that 40% of new agreements were renegotiations of existing agreements, so nearly two thirds of proposals were new services, of which it could be further assumption that half of these related to significant new projects.

- an average project value of $300 million, of which 100% is contingent on a rail access agreement being secured (i.e. $300 million of investment is potentially held up until an access agreement is reached).

The average value of project estimate is based on data from the Commonwealth Department of Industry, Innovation and Science, which shows that as at October 2017 there were six new, 'committed' resource projects with an average value of $290 million and 49 'non-committed' projects at an average value of $629 million (Table 4). The aggregate average across all 55 projects is $592 million. We opted to use an average project value of $300 million in the CBA. While this figure may appear low by Pilbara standards, the project sample includes smaller resource projects from other regions. This is appropriate because the proposed rail access reforms are not specific for Pilbara railway.

Table 4 WA Resource projects, by average value ($mill) and number (in parenthesis)

	Expansion	New project	Redevelopment	Total
Committed	$773 (3)	$290 (6)	$197 (1)	$425 (10)
Not committed	$114 (1)	$629 (49)	$272 (2)	$605 (52)
Total	$608 (4)	$592 (55)	$247 (3)	$576 (62)

Note: Excludes oil and gas projects, and all projects owned by BHP, Rio Tinto, Hancock Prospecting and Fortescue Metals Group
Source: Department of Industry, Innovation and Science – Resources and Energy Major Projects List

3.4 Lower risk of good projects not coming to fruition

Not all project proposals culminate in an access agreement being successfully negotiated between the parties. Under current arrangements, we suspect that there is a proportion of 'good' projects that are commercially viable, but do not proceed because the protracted negotiation timeframes and associated transaction costs mean that they miss the investment window. Under the new regime, the reduced risk of dispute and shorter negotiation timelines should result in a fewer good projects being abandoned.

This benefit item is difficult to quantify owing to the lack of data on the number of projects that would have been developed had the negotiation process been less onerous. We therefore do not quantify this benefit as part of the CBA.

3.5 Increased durability of negotiated agreements

The proposed new regime will mean that access agreements made under the Code are likely to be more 'durable' and more 'robust' in being able to address a range of future circumstances. Having established a firm price guidance and a systematic process for reaching a negotiated agreement under the new arrangements, subsequent negotiations are less likely to involve a 're-opening' of issues that have previously been dealt with.

There will be established precedent in how the issues are to be best addressed and resolved.

Multiple access seekers on the Arc Infrastructure network have stated that under current arrangements they have problems renegotiating agreements. We consider that under the proposed reform, standard terms and conditions will reduce the number of matters that are up for renegotiation each time.

More durable agreements will have the practical effect of delivering cost savings from not having to re-negotiate on particular matters. It is difficult to quantify the scale of these cost-savings as each project will be different, and have therefore not quantified this benefit in the CBA. We nevertheless regard this benefit to be moderately material.

4 Quantification of costs and benefits – standard scenario

In the analysis that follows, we quantify two of the main benefits of the proposed pricing reform that are expected to arise under the standard scenario:

- the bring forward of projects; and
- the cost savings due to reduced negation timeframes.

These benefits are calculated using the assumptions outlined in the preceding section, together with an assumed frequency of proposals that are negotiated under the new arrangements, which is set out in sub-section 4.1 below.

The benefits are compared to the additional costs of the new pricing mechanism. All benefits and costs are evaluated over a 20 year timeframe using a central discount rate of 7% (with sensitivity testing to 4% and 10%). We assume the new arrangements are introduced in 2019, with the first year of benefits commencing in 2020.

4.1 Future use of the new access arrangements

A key factor underpinning the assessment of costs and benefits of the proposed change to pricing mechanism is the number of negotiations that will occur under the Access Code. Table 5 summarises the expected number of projects negotiated within the Code – both "with" and "without" the new arrangements.

Table 5 Access negotiation scenarios

	Base Case	New Arrangements
NUMBER OF PROPOSALS		
Average number per year	3.3 (ie. 10 proposals on average over a 3 year period)	3.3 (ie. 10 proposals on average over a 3 year period)
Average length of railway per proposal	500km	500km
Negotiations within Code	1 proposal every 3 years Based on historical incidence of 3 proposals under Code in last 10 years	$1\frac{1}{3}$ proposals per year Assumes that there will be a greater likelihood of negotiations occurring within Code, but still will not involve all negotiations
Negotiations outside Code	3 proposals per year Based on historical incidence of 20 agreements negotiated in 10 years, and assuming some additional proposals that did not proceed to agreement	2 proposals per year Assumes same rate of proposals per year as previous 10 years
FREQUENCY OF DISPUTES UNDER CODE		
Frequency	2 out of 3 proposals under Code referred to dispute	1 out of 6 proposals under Code referred to dispute

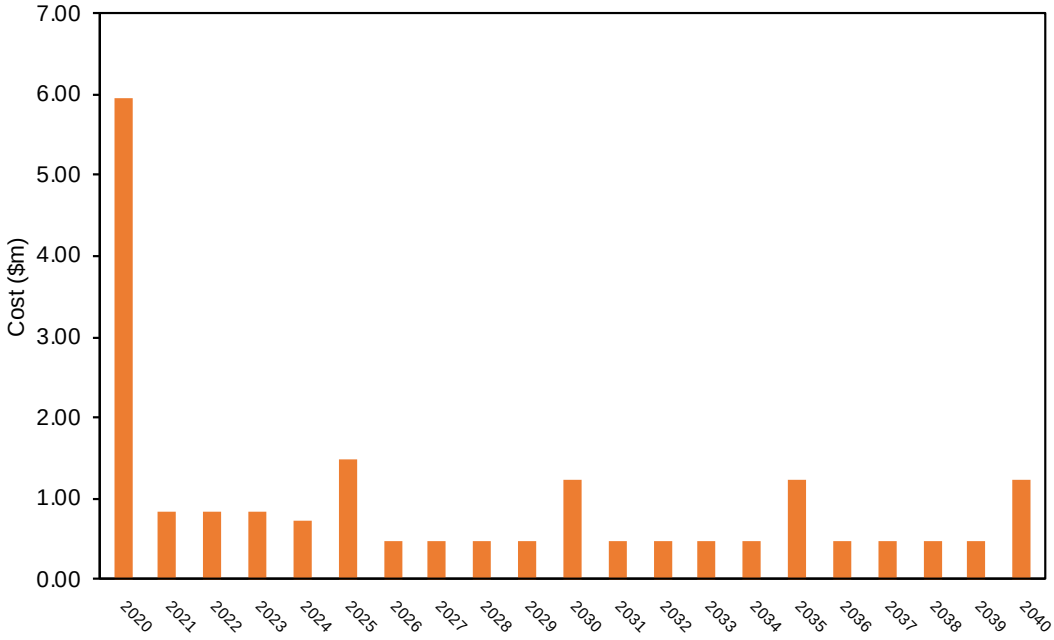
	Base Case	New Arrangements
	Based on historical incidence of 2 proposals in last 10 years either referred to Court resolution or arbitration	Reduced rate of disputation reflects low number of negotiations referred to dispute in other regimes nationally
NEGOTIATION TIMEFRAME		
Under the Code	3.0 years per proposal, on average Where there is a major dispute, negotiations will be much longer, with CBH negotiation still continuing after 5 years	1.5 years per proposal, on average Evidence under Aurizon public reporting of time taken for negotiations well under 6 months. While the absence of regulator approved indicative tariffs will mean that negotiations are unlikely to be this short, the inclusion of standing offer tariffs and regulator endorsed standard access agreement will be likely to significantly reduce negotiation period.
Outside the Code	1 year per proposal, on average	0.5 of a year per proposal, on average. Negotiation time reduces under the new arrangements because fewer complex proposals are negotiated inside the code. i.e. a greater number of complex proposals are now negotiated under the Code.
NUMBER OF ACCESS AGREEMENTS		
% of proposals within the Code that reach agreement	0%	80%
STANDING OFFER TARIFFS		
Number	Not applicable	4 standing offer tariffs to be developed over a 6 year period. It is assumed that standing offers will only be required where there is, or is likely to be, at least one operator (in addition to the incumbent operator) who is interested in access for a similar service requirement (i.e. access for the same commodity on the same route). The only existing instance where there is more than one operator on a route with a similar service requirement is the interstate intermodal service. It is assumed that, over the next five years, there may be three more services identified where there is interest from another operator with a similar service requirement.

4.2 Cost profile

Figure 1 illustrates the additional costs of the new pricing mechanism, relative to Base Case. Most of the 'new' costs of adopting the new pricing mechanism arise up-front, in the first year. We estimate up front costs to be $6 million. Recurrent annual costs for the first nine years of the implementation period are approximately $840,000 (across all three rail owners, ERA and other stakeholders). Recurrent costs beyond the first nine years reduce to around $470,000. Every fifth year the costs reach approximately $1.2 million

coinciding with those years in which a regulatory review is undertaken of the RAB roll forward.

Figure 1 Cost profile over time



Data source: Synergies modelling

4.3 Benefit Cost Analysis results

The results indicate that, based on the central assumptions outlined in this paper and a real rate of discount of 7%, the new pricing mechanism will generate a net present value (NPV) benefit of $36.1 million over 20 years (Table 6). Of this total benefit, 72 per cent is due to the assumed bring forward of projects, with the other 28 per cent due to reduced negotiation costs.

Benefits are estimated to exceed costs by a ratio of 3.64 to 1. Benefits are conservative because the analysis does not quantify the benefit of the reduced risk of 'good' projects not coming to fruition, and the benefit of improved durability of negotiated prices.

Table 6 Benefit-Cost results – central assumptions

	Discount Rate		
	4%	7%	10%
Present value of Costs ($)	15,712,060	13,687,183	12,272,567
Present value of Benefits ($)	63,927,891	49,833,460	40,047,174
NET PRESENT VALUE ($)	48,215,831	36,146,277	27,774,608
BENEFIT COST RATIO	4.07	3.64	3.26

4.4 Sensitivity analysis

The NPV result is sensitive to the assumed extent that projects can be brought forward due to shorter negotiation times under the reforms. Table 7 shows that under a pessimistic scenario in which projects are brought forward by just 12 months, and where only 20% of projects experience a bring-forward, the NPV is just $6.6 million. Alternatively, under an optimistic scenario whereby projects are brought forward by 22 months and 40% of projects experience the benefit of a bring-forward, the NPV is much higher at $64 million (and a BCR of 5.66).

Table 7 Sensitivity of NPV ($), 7% discount rate

	Average project bring-forward		
% of projects brought-forward	12 months	18 months (central)	22 months
20%	6,636,289	24,196,405	34,867,908
30% (central)	14,467,385	36,146,277	49,356,763
40%	22,298,480	48,096,149	63,845,617

4.5 Conclusion

This paper provides an indicative, 'order of magnitude' estimate of the net economic benefits of the proposed rail access pricing mechanism. The analysis is necessarily assumption-driven and built around our judgement of what constitutes reasonable scenarios 'with' and 'without' the proposed reform.

The analysis suggests that the expected benefits of just two reform outcomes – the bring forward of projects and reduced negotiation costs – is likely to be sufficient to outweigh the additional cost of implementing and operating the new arrangements under a range of plausible scenarios and discount rates.

5 Alternative scenario

The alternative scenario comprises a situation in which no access is sought to Pilbara railways over the 20 year timeframe for the analysis, thus exempting Pilbara railway owners from the need to establish RABs and standing offers.

5.1 Assumptions

Under this scenario the costs pertaining to administering an access regime in relation to the Pilbara railways is effectively 'switched off' in the model. It is therefore necessary to develop a new set of base case and 'with reform' assumptions that are specific for the south west railway network. These assumptions are summarised in Table 8.

Table 8 Key assumptions under alternative scenario

	Base case	With pricing reform
Number of proposals each year		
Average number per year	2.7	2.7
Under Code	0.2	1.0
Outside of Code	2.5	1.7
Number of standing offer tariffs	N/A	2
Number of years over which standing offer tariffs are developed	N/A	3
Average value of new project	$200 million	$200 million

5.2 Benefit Cost Analysis Results

The results of this scenario are presented in Table 9.

Table 9 Benefit-Cost results – alternative scenario

	Discount Rate		
	4%	7%	10%
Present value of Costs ($)	8,239,279	7,294,207	6,635,051
Present value of Benefits ($)	36,448,671	28,412,691	22,833,012
NET PRESENT VALUE ($)	28,209,392	21,118,484	16,197,962
BENEFIT COST RATIO	4.42	3.90	3.44

Under the alternative scenario, the costs of reform are significantly lower – just $7.3 million (present value, 7% discount rate), which is due to Pilbara railways being exempt from having to develop RABs and standing offers, due to the trigger not being activated. Benefits fall to $28.4 million NPV. This is primarily due to the reform no longer yielding a bring-forward benefit for Pilbara projects, which are of comparatively higher value than those in the south west.

The net benefit of the reform reduces to $21.1 million NPV (down from $36.1 million under the standard scenario). The BCR rises to 3.90 owing to costs being substantially lower under the alternative scenario.