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Subject: FW: ERA Determination Update
Attachments: 2014.04.07 - CBH Submission [public version].pdf

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From: Michael Keeble
Sent: Thursday, 10 July 2014 9:28 AM
To: Helen Darcy-Walker
Subject: FW: ERA Determination Update



Please forward this letter to all councillors

Regards

Michael

Michael Keeble
 Chief Executive Officer
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Subject: ERA Determination Update

Hi All

Thank you for your time in various Shire meetings over the last few weeks.

I just wanted to provide you with another update on the release of the ERA Determination.

At this stage CBH has provided feedback to the ERA that we do not believe any content in the ERA Determination should be confidential and we understand that the ERA will finalise the issue in due course once they have had feedback from Brookfield Rail.

Also just as some background information I have provided the redacted version of CBH's submission

7/10/2014

made to the ERA in April 2014, stating our position on the floor and ceiling price.

Please feel free to forward this information to your Councillors.

If you have any questions please give me a call.

Kind regards
Brianna



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7/10/2014



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Further submission

Approval or determination of the floor and ceiling costs relevant to Co-operative Bulk Handling Limited's access proposal dated 10 December 2013

Brookfield Rail Network

Submission to the Economic Regulation Authority



7 April 2014

EXECUTIVE SUMMARY

1. CBH has made a proposal for access to certain routes on the railway network managed and controlled by BR under section 8 of the Code.
2. In response, BR has proposed the following floor and ceiling costs relevant to the proposal:
 - (a) aggregate annual floor costs of \$110,329,225; and
 - (b) aggregate annual ceiling costs of \$617,685,432,
(including the Tier 3 lines, for which BR has provided costs that are only valid until 30 June 2014, and the Milling line, for which BR has provided costs that are only valid until 31 December 2015).
3. CBH estimates that the floor costs and ceiling costs, properly calculated in accordance with the Code, should be significantly lower than the Proposed Floor and Ceiling Costs. CBH estimates:
 - (a) aggregate floor costs for the Requested Routes of \$15,821,503; and
 - (b) aggregate ceiling costs for the Requested Routes of \$274,546,536.
4. Based on the limited costs information BR has provided, the differences appear to be because:
 - (a) BR has over-valued the gross replacement value of the railway and railway infrastructure, has over-valued its operating costs, and has over-valued its overheads; and
 - (b) BR has not properly calculated the floor costs. Instead of calculating the incremental costs of providing access to CBH, it appears to have attributed all non-maintenance and overhead costs, and substantially all maintenance operating costs, to CBH irrespective of CBH's total proportion of demand.
5. In addition, CBH submits that:
 - (a) the gross replacement value of railway infrastructure on routes that deliver actual performance that is significantly worse than the performance expected if that infrastructure were constructed using lowest cost modern equivalent assets, should be discounted; and
 - (b) as outlined in this submission, a number of the principles in BR's approved costing principles should not be used to calculate the relevant floor and ceiling costs because they do not reflect efficient practices, resulting in inflated costs.
6. CBH submits that its analysis demonstrates that the Proposed Floor and Ceiling Costs have not been determined in accordance with the requirements of the Code, and should not be approved by the Authority. As a consequence, CBH submits that the Proposed Floor and Ceiling Costs cannot be relied on, and that it will be necessary for the Authority to conduct its own evaluation to determine the relevant floor costs and ceiling costs itself for the Requested Routes. To assist the Authority in that task, CBH encloses with this submission a copy of its costing model that it has used to estimate the relevant floor and ceiling costs, and expert reports by Frontier Economics and INDEC Consulting.

1. INTRODUCTION

- 1.1 This submission follows Co-operative Bulk Handling Limited's (**CBH's**) preliminary submission dated 20 March 2014 to the Economic Regulation Authority (**Authority**) on its approval or determination of floor and ceiling costs for routes on the railway network (the **Network**) managed and controlled by Brookfield Rail Pty Ltd (**BR**) under clause 10 of Schedule 4 to the *Railways (Access) Code 2000* (WA) (the **Code**).¹
- 1.2 The Authority's process is in relation to CBH's access proposal, which it submitted to BR on 10 December 2013, and clarified on 13 February 2014 (the **Proposal**).² The Proposal seeks access to the **Requested Routes** set out in **Schedule A** to this submission.
- 1.3 As set out in its preliminary submission, CBH is concerned about the extraordinarily high level of BR's initial determination of the floor and ceiling costs (the **Proposed Floor and Ceiling Costs**). BR has proposed:
- (a) aggregate floor costs for the Requested Routes (except the Tier 3 lines) of \$103,620,583;
 - (b) aggregate ceiling costs for the Requested Routes (except the Tier 3 lines) of \$557,447,680;
 - (c) aggregate floor costs for the Tier 3 lines of \$6,708,642; and
 - (d) aggregate ceiling costs for the Tier 3 lines of \$60,237,752.³
- 1.4 This is a grand total of a staggering \$110,329,225 for floor costs for all Requested Routes, and \$617,685,432 for ceiling costs for all Requested Routes.
- 1.5 CBH has now had an opportunity to further consider the Proposed Floor and Ceiling Costs, and has developed its own estimate of the floor and ceiling costs in respect of its Proposal.
- 1.6 CBH has sought to develop its estimate of the floor and ceiling costs in accordance with the requirements of the Code (particularly Schedule 4 to the Code) and the costing principles submitted by BR and approved by the Authority in April 2011 (the **Approved Costing Principles**). In doing so, CBH has sought to ensure that the costs it has used are those costs that would be incurred by a body managing the railways network and adopting efficient practices applicable to the provision of railway infrastructure, including the practice of operating a particular route in combination with other routes for the achievement of efficiencies (as required by clause 4 of Schedule 4 of the Code).
- 1.7 CBH estimates that the floor and ceiling costs, properly calculated in accordance with the Code, should be significantly lower than the Proposed Floor and Ceiling Costs. CBH estimates:
- (a) aggregate floor costs for the Requested Routes of \$15,821,503 (**CBH Floor Costs**); and
 - (b) aggregate ceiling costs for the Requested Routes of \$274,546,536 (**CBH Ceiling Costs**),

¹ In these submissions, a reference to a "section" is a reference to a section of the Code, and a reference to a "clause" is a reference to a clause in Schedule 4 to the Code, unless indicated otherwise.

² As part of a confidential settlement of court proceedings between CBH and BR.

³ Importantly, BR has stated that the costs it has provided for the Tier 3 Lines are only valid until 30 June 2014—the day before the proposed access would commence under the Proposal. It has also stated that the costs it has provided for the Milling line are only valid until 31 December 2015. The **Tier 3 and Milling lines** are identified in **Schedule B** to this submission.

(together, the **CBH Floor and Ceiling Costs**).

- 1.8 As explained in paragraph 2.6 below, the CBH Floor and Ceiling Costs do not include costs for three routes to which CBH seeks access (due to the fact that CBH rarely uses those routes, and does not have access to relevant data).⁴ The following table compares the CBH Floor and Ceiling Costs against the Proposed Floor and Ceiling Costs excluding those three routes.

Route	CBH Floor Costs (\$)	Proposed Floor Costs (\$)	Difference (\$)
Single-User Routes*	9,858,888	25,700,972	15,842,084
Multi-User Routes**	3,477,750	58,926,066	55,448,316
Tier 3 & Milling lines***	2,484,866	7,775,239	5,290,373
Total	15,821,504	92,402,277	76,580,773
Route	CBH Ceiling Costs (\$)	Proposed Ceiling Costs (\$)	Difference (\$)
Single-User Routes*	106,519,950	215,345,446	108,825,496
Multi-User Routes**	140,586,608	271,554,554	130,967,946
Tier 3 & Milling lines***	27,439,979	69,761,733	42,321,754
Total	274,546,536	556,661,733	282,115,197

* The data excludes NG.39a – Dongara (ex) to Arrowsmith.

** The data excludes SG.5a West Kalgoorlie – Kambalda and SG.1b – Koolyanobbing East (ex) to Kalgoorlie, and includes NG.44 (part) – Perenjori to Maya.

*** The data excludes NG.44 (part) – Perenjori to Maya (which is included as a Multi-User Route).

- 1.9 BR has presented the Proposed Floor and Ceiling Costs in a manner that makes it difficult for CBH to analyse the basis on which it has calculated costs, or to properly compare them to the costs developed by CBH. However, the principal reasons for the difference between the Proposed Floor and Ceiling Costs and the CBH Floor and Ceiling Costs appear to be because:

- (a) BR has significantly over-valued the gross replacement value (**GRV**) of the railway infrastructure for each of the Requested Routes, particularly in respect of earthworks, track laying and turnouts;
- (b) BR has not calculated the Proposed Floor Costs on the basis of the incremental costs of providing CBH access, but has instead included almost all of its total operating costs and total overheads in its Proposed Floor Costs, contrary to the requirements of the Code; and
- (c) BR has significantly over-valued the operating costs and overhead components of its costs.

- 1.10 An additional concern to CBH is that the actual performance of a number of the Requested Routes is significantly lower than the performance that would be expected if the Requested Route was built using lowest cost modern equivalent assets (**MEA**) (for example, the Tier 3 and Milling lines). If an operator, or group of operators, paid the ceiling cost proposed by BR for such a Requested Route, that operator, or group of operators, would effectively pay more than the Requested Route is worth.

⁴ The three routes are SG.5a West Kalgoorlie – Kambalda, SG.1b – Koolyanobbing East (ex) to Kalgoorlie, and NG.39a – Dongara (ex) to Arrowsmith.

- [REDACTED]
- 1.11 The Authority has recognised this problem in the past, and proposed that the GRV for those Requested Routes be discounted to reflect the difference in actual performance and the performance expected from MEA. CBH has proposed a methodology for applying that discount in this submission. However, in order to provide a meaningful comparison between the CBH Floor and Ceiling Costs and the Proposed Floor and Ceiling Costs, the CBH Floor and Ceiling Costs do **not** provide for a GRV discount.
- 1.12 As set out in this submission, CBH is also concerned that a number of principles contained in the Approved Costing Principles do not meet the requirements of the Code, and should therefore not be applied by the Authority when determining the relevant floor and ceiling costs. This is because, while BR is required to apply and follow the Approved Costing Principles,⁵ there is no such requirement on the Authority (which may, in any event, require BR to amend its Approved Costing Principles at any time).
- 1.13 Finally, CBH makes this submission on the basis of the costs information provided to it by BR, which is set out in **Schedule C** to this submission. CBH will be directly affected by the Authority's decision to either approve the Proposed Floor and Ceiling Costs, or make its own determination of the relevant costs, under clause 10(3) of Schedule 4 of the Code. As this decision involves the exercise of a statutory power, that decision is regulated by the principles of procedural fairness, which apply to both BR and CBH. CBH therefore requests the opportunity to be heard on any matters that may affect the exercise of the Authority's decision, including in response to any arguments that have been put by BR to the Authority.
- 1.14 CBH encloses with this submission:
- (a) a full copy of its model of the CBH Floor and Ceiling Costs (the **CBH Model**);
 - (b) an expert report prepared by Frontier Economics setting out how the CBH Model was prepared and comparing the CBH Floor and Ceiling Costs to the Proposed Floor and Ceiling Costs (the **Frontier Report**); and
 - (c) an expert report prepared by INDEC Consulting setting out how the inputs to the CBH Model were prepared and comparing the CBH Floor and Ceiling Costs to the Proposed Floor and Ceiling Costs (the **INDEC Report**).
- 1.15 This submission highlights the key points arising from the expert reports and the CBH Model.

⁵ See, for example, section 46 of the Code and clause 10(1) of Schedule 4 of the Code.

2. CBH FLOOR AND CEILING COSTS

Introduction

- 2.1 CBH, with expert advice from Frontier Economics and INDEC Consulting, developed the CBH Model to calculate the CBH Floor and Ceiling Costs for the Requested Routes on the basis of its Proposal (as clarified), a copy of which is **enclosed** with this submission.
- 2.2 The Frontier Report and INDEC Report explain how the CBH Model, and the inputs to the CBH Model, were developed. In summary:
- (a) the CBH Model sets out an estimate of the floor costs and ceiling costs for each Requested Route, aggregated into "routes" as described in Schedule 1 to the Code (**Schedule 1 Routes**);
 - (b) the CBH Model uses the following data sets:
 - (i) an estimate of the GRV of each Requested Route that was developed by INDEC Consulting, drawing on publically available information published by BR about the Network (and, in particular, information set out in the public version of WestNet's costing model that was published in 2009);
 - (ii) an estimate of the operating and maintenance costs of each Requested Route taking data from an operating and maintenance cost model developed by INDEC Consulting, which estimates the operating and maintenance costs, based on efficient practices, for each Requested Route;
 - (iii) an estimate of the overhead costs of each Requested Route taking data from the public version of WestNet's costing model that was published in 2009, escalated to 2013 figures; and
 - (iv) an estimate of the total demand for each Requested Route using a three-year average of the most recent data published by BR (being the data for the calendar years 2010, 2011 and 2012) and an estimate of CBH's demand for each Requested Route using a three-year average of CBH's demand (both expressed in '000 Gross Tonne Kilometres or **GTK**); and
 - (c) the CBH Model also:
 - (i) uses the Weighted Average Cost of Capital (**WACC**) determined by the Authority for the financial year 2012-2013 as the long-term WACC, which is used as the interest rate for the purposes of calculating capital costs (being 7% pre-tax);⁶
 - (ii) adopts the economic lives specified in the Approved Costing Principles; and
 - (iii) complies with the Approved Costing Principles, including incorporating the "design, construction and project management" costs, "financing charges" and working capital principles (despite the fact that CBH considers the methodology set out in the Approved Costing Principles to be inefficient and inconsistent with the requirements of the Code).
- 2.3 Overall, CBH has sought to adopt a **conservative** approach to its estimation of the CBH Floor and Ceiling Costs, which is likely to overstate, not understate, those costs. Nonetheless, there is a significant difference between the CBH Floor and Ceiling Costs and the Proposed Floor and Ceiling Costs.

⁶ WACC Determination for Brookfield Rail, the Public Transport Authority and The Pilbara Infrastructure Pty Ltd to apply from 1 July 2013 to 30 June 2014.

CBH Floor and Ceiling Costs

2.4 The CBH Floor and Ceiling Costs for the Requested Routes are as follows:

	BR Route	Schedule 1 Route	Floor (\$)	Ceiling (\$)
1.	NG.36 – Amery (ex) to Kalannie	Amery - Kalannie	458,218	5,900,141
2.	NG.23 – Avon (ex) to Albany	Avon - Albany	4,384,197	33,957,996
3.	SG.1a – Avon to Koolyanobbing East	Avon – Kalgoorlie (part of)	96,390	48,921,554
4.	SG.1b – Koolyanobbing East (ex) to Kalgoorlie	Avon – Kalgoorlie (part of)	CBH has not costed this route	CBH has not costed this route
5.	NG.34 – Avon Yard (ex) to McLevie	Avon Yard - McLevie	1,247,701	11,296,309
6.	NG.37 – Burakin (ex) to Beacon	Burakin - Beacon	306,950	3,664,079
7.	NG.35 – Goomalling (ex) to Mukinbudin	Goomalling - Mukinbudin	911,196	11,491,521
8.	NG.28 – Lake Grace (ex) to Hyden	Lake Grace - Hyden	406,127	5,775,566
9.	DG.44 – Midland to Avon (ex)	Midland - Avon	620,662	33,120,077
10.	DG.45 – Midland (ex) to Kwinana	Midland - Kwinana	2,747,280	27,476,467
11.	NG.38a – Millendon Junction to Narngulu (ex) NG.38b – Narngulu to Geraldton	Millendon Junction - Geraldton	1,339,475	23,325,227
12.	NG.40a – Narngulu (ex) to Perenjori NG.44 (part) – Perenjori to Maya	Narngulu - Maya	11,748	15,137,860
13.	NG.25 – Narrogin to West Merredin (Tier 3)	Narrogin - West Merredin	804,541	8,195,322
14.	NG.41 – Toodyay West to Milling (the Milling Line)	Toodyay West - Milling	567,338	6,876,477
15.	NG.27 – Wagin (ex) to Newdegate	Wagin - Newdegate	805,023	11,109,110
16.	SG.5b – Kambalda to Esperance	West Kalgoorlie - Esperance (part of)	1,670	15,930,650
17.	SG.5a – West Kalgoorlie (ex) to Kambalda (ex)	West Kalgoorlie - Esperance (part of)	CBH has not costed this route	CBH has not costed this route
18.	NG.32 (part) – West Merredin to Kondinin (Tier 3)	West Merredin - Kondinin	703,301	7,458,975
19.	NG.26 – Kulin to Yilliminning	Yilliminning - Kulin	409,686	4,909,205
20.	NG.39a – Dongara (ex) to Arrowsmith	Dongara – Arrowsmith	CBH has not costed this route	CBH has not costed this route
			15,821,503	274,546,536
	Multi-User Route			
	Single-User Route			
	Tier 3 & Milling lines			

2.5 CBH submits that the CBH Floor and Ceiling Costs have been calculated in accordance with the requirements of the Code, and therefore demonstrate that the Proposed Floor and

[REDACTED]

Granularity of costs information

- 2.21 A significant issue faced by CBH is that the only costs information available to CBH is the costs information provided by BR, as set out in **Schedule C** to this submission. This is comprised of floor and ceiling costs for each BR Route, broken into certain "lump sum" categories of costs information. Apart from the Approved Costing Principles, CBH does not have access to any information about how BR has calculated those costs, nor does CBH have access to BR's model, and no public version of this has been made available. As a result, in many cases, it is not possible to understand how BR has arrived at certain amounts.
- 2.22 This has limited the extent to which CBH can meaningfully comment on why there are differences between the CBH Floor and Ceiling Costs and the Proposed Floor and Ceiling Costs.
- 2.23 This issue is particularly acute in the case of overheads, for which BR has provided no break-down whatsoever.

3. CAPITAL COSTS

Introduction

- 3.1 There are significant differences between the capital costs of the CBH Floor and Ceiling Costs and the Proposed Floor and Ceiling Costs. These differences are primarily, if not solely, the result of differences in valuing the GRV of each Requested Route.
- 3.2 In addition, CBH has identified three additional matters that should be taken into account when determining the relevant floor and ceiling costs. These are that:
- (a) a GRV "discount" should be applied on routes where the actual performance is substantially lower than the performance that would result from using lowest cost MEA to reflect the fact that it is not possible to reconstruct the relevant route using MEA (particularly where, in many cases, the relevant routes are 100 years old);
 - (b) the "design, construction and project management fees", "financing charges" and "working capital" principles provided for in the Approved Costing Principles result in costs that are too high and that should not be included in the relevant floor and ceiling costs; and
 - (c) the fact BR has received government and private contributions to construct part of the Network should be taken into account when calculating its capital costs, so that the ceiling price for a route is not set in a way that allows BR to potentially recover costs that it did not incur and which have already been paid for by the government or third parties.
- 3.3 Despite CBH's concerns, the CBH Model complies with the Approved Costing Principles and does not provide for any discount of the GRV.

GRV Comparison

- 3.4 CBH calculates the GRV as \$2,431,836,309 for the routes it has modelled. BR calculates the GRV as \$ [REDACTED] for all routes (or \$ [REDACTED] for the routes CBH has modelled).
- 3.5 The following table provides a "like-for-like" comparison between CBH's calculation of the GRV for the routes it has modelled, and BR's calculation of the GRV for the same routes.

Route type	CBH GRV (\$)	BR GRV (\$)	Difference (\$)
Single-User Route*	995,257,961	2,576,971,772	1,581,713,811
Multi-User Route**	1,175,845,111	[REDACTED]	[REDACTED]
Tier 3 & Miling lines***	260,733,237	850,040,010	589,306,773
Total	2,431,836,309	[REDACTED]	[REDACTED]

* The data excludes NG.39a - Dongara (ex) to Arrowsmith.

** The data excludes SG.5a West Kalgoorlie - Kambalda and SG.1b - Koolyanobbing East (ex) to Kalgoorlie, and includes NG.44 (part) - Perenjori to Maya.

*** The data excludes NG.44 (part) - Perenjori to Maya (which is included as a Multi-User Route).

3.6 The following table compares the GRV calculated by CBH against the GRV calculated by BR on a "per kilometre" basis, using INDEC's "normalised" data to ensure a "like-for-like" comparison.

Route type	CBH GRV (\$/km)	BR GRV (\$/km)	Difference (\$/km)
Single-User Route*	440,420	1,536,123	1,095,702.69
Multi-User Route*	1,104,338		
Tier 3 & Miling lines*	507,404	1,616,840	1,109,435.73
Total	1,673,100		

* Data normalised by INDEC to provide "like-for-like" comparison.

3.7 The relative consistency in the differences between CBH's and BR's "per kilometre" GRV costs suggest that there is a consistent difference between the approach taken by CBH and that taken by BR.

GRV analysis: key areas of difference

3.8 The categories of earthworks, track laying, turnouts and level crossings represent the largest differences in GRV. These account for more than \$2.4 billion of the railway infrastructure on BR's costings. The differences are summarised in the table below (using INDEC's normalised data).

Category	Single-User Routes*		
	CBH (\$)	BR (\$)	Difference (\$)
Earthworks	137,865,666	992,199,193	854,333,527
Track laying	288,942,958	960,684,489	671,741,531
Turnouts	79,249,404	148,745,839	69,496,435
Level crossings	4,497,216	58,658,953	54,161,737
Total	510,555,244	2,160,288,474	1,649,733,230

* Data normalised by INDEC to provide "like-for-like" comparison.

Category	Multi-User Routes*		
	CBH (\$)	BR (\$)	Difference (\$)
Earthworks	61,703,585		
Track laying	165,475,645		
Turnouts	79,804,290		
Level crossings	2,378,579		
Total	309,362,099		

* Data normalised by INDEC to provide "like-for-like" comparison.

3.9 The only reason that CBH has identified that may explain these differences is that BR has significantly over-valued the cost of earthworks, turnouts, and track laying. Without access to BR's costing model or detailed assumptions, CBH can only speculate about the differences. The differences may be due to BR calculating costs on the basis of different, and less efficient, practices, or to valuation differences in relation to inputs (such as steel).

[REDACTED]

For example, BR's determination of GRV costs in relation to the Narngulu – Geraldton route equal almost [REDACTED] per kilometre.

3.10 This is supported by CBH's experience in the way that BR prices construction activities on the Network. For example, as set out in CBH's preliminary submission:

- (a) BR sought to replace five turnouts and 519 metres of track, at a quoted cost of \$3.5 million (to be paid for entirely by CBH), despite the fact that CBH did not consider that this work was necessary. Further, it was apparent that BR proposed to use new track and turnouts, and to not re-use any of the existing turnouts or track, notwithstanding the existing track and turnouts could have been re-used. CBH estimates that the total cost of this replacement should have been less than \$1,000,000;
- (b) BR charged CBH \$20,000 for shunt tractor pads (which allow rubber tyred tractors to enter and egress the loading track), even though CBH had obtained quotes from local suppliers of between \$4,000 and \$6,000; and
- (c) BR quoted \$600,000 to install a level crossing at CBH's siding in Albany (even though the need for the level crossing was due to non-CBH traffic).

3.11 Notably, the difference between BR's quotes and quotes obtained by CBH in each of these examples is broadly in line with the difference between the Proposed Floor and Ceiling Costs and the CBH Floor and Ceiling Costs.

3.12 The INDEC Report explains in detail how CBH has calculated its costs components, which are designed to be based on efficient practices. The one area where CBH's costs might be increased (but not to anywhere near the level proposed by BR) is in respect of automatic protection at level crossings. However, even if CBH's costs for level crossings were increased, there would still be a significant difference between the CBH Floor and Ceiling Costs and the Proposed Floor and Ceiling Costs.

Discounting the GRV for low performance routes

3.13 Another key issue in determining the relevant floor and ceiling costs is how capital costs should be determined for routes that perform substantially worse than they would perform if built using lowest cost MEA. If this difference is not taken into account, then a railway owner may be entitled to recover (either from one operator, or all operators using that route) significantly higher costs than may be warranted, given the level of performance.

3.14 The Authority has previously recognised that "it would be appropriate to "discount" the GRV of an MEA route section where the actual capacity of the section is significantly less than the hypothetical MEA. This is an appropriate approach where the actual capacity of a route section is less than the lowest feasible build capacity".⁷

3.15 CBH submits that this is the case for a number of the Requested Routes. In particular, BR has imposed significant speed and weight restrictions which dramatically reduce the capacity of some Requested Routes. This applies particularly to the Tier 3 and Miling lines.

3.16 The INDEC Report sets out an approach for appropriately "discounting" the GRV of such routes. CBH endorses this approach.

3.17 INDEC recommends that:

- (a) the MEA that should be used are those that are able to meet the "Defined Interstate Railway Network" (**DIRN**) (this is the standard operated by both the ARTC and BR,

⁷ ERA, *Review of the Railways (Access) Code 2000* – Final Report dated December 2011 at paragraph 230.

an earlier version of which is referred to at page 9 of the Approved Costing Principles), which provides for trains having 21 tonne axle loads and operating at speeds of up to 110 km/hour;

- (b) where the DIRN performance exceeds the actual performance of a route, the GRV should be discounted to take account of that performance difference, by applying two discount factors, being:
 - (i) an "axle load discount" in the ratio of the actual permitted axle load divided by the DIRN specified axle load; and
 - (ii) a "line speed discount" in the ratio of the actual permitted speed divided by the DIRN specified speed; and
- (c) a total discount should be applied to the sum of the GRV using the two discount factors.

3.18 By way of illustration, this would result in the following discount being applied.

Actual Permitted Axle Load (tonnes)	DIRN Permitted Axle Load (tonnes)	Actual Loaded Maximum Line Speed (km/h)	DIRN Maximum Line Speed	Total Discount (% GRV)
16	21	40	110	87.45%
16	21	50	110	78.35%
16	21	60	110	69.26%
19	21	60	110	54.98%
19	21	70	110	45.89%
19	21	80	110	36.80%

3.19 The CBH Model **does not** provide for the GRV discount. However, CBH submits that a GRV discount should be applied to the capital costs component of the ceiling costs (none of the floor costs include a capital cost component.)

3.20 CBH has sought, as set out in its clarified Proposal, access at performance standards that meet the current operating parameters imposed by BR. These are summarised in **Schedule D** to this submission. It is evident from these rules that the permitted speeds and weights imposed by BR are significantly lower than the DIRN standard.

3.21 This is particularly the case for the Tier 3 and Miling lines, as summarised below.

	Maximum Speed (km/hr)		Tonne Axle Load (TAL)	Consist
	Empty	Loaded		
Kulin - Yilliminning	50	40	16	2L60W
Toodyay - Bolgart	40	40	16	2L60W
Bolgart - Milling	30	30	16	1L34W
Narrogin - Yilliminning	50	40	16	2L60W
Yilliminning - Wickepin	30	30	16	1L34W
Wickepin - Bruce Rock	30	0	16	1L34W
Bruce Rock - West Merredin	30	30	16	1L34W LOADED 2L60W EMPTY
West Merredin - Narembeen	30	30	16	1L34W LOADED 2L60W EMPTY
Narembeen - Kondinin	30	30	16	1L34W
Maya - Perenjori	30	30	16	2L60W

3.22 Further, actual performance is often significantly worse than the performance levels specified in the relevant operating parameters. For example, BR regularly imposes heat restrictions that further reduce the speed and weight that may be carried on a number of the Requested Routes. This includes heat restrictions in relation to parts of the Network that have had additional maintenance carried out, such as re-sleepering. For example, the route section between Beacon to Burracoppin remains subject to heat restrictions after re-sleepering was performed.

Design, construction and project management fees and financing charges

3.23 The Approved Costing Principles provide that BR will include in the calculation of GRV:

- (a) "design, construction and project management fees at a rate of 20% of the total cost of the infrastructure";⁸ and
- (b) "an allowance for its cost of capital and related financing fees and charges during the construction period" (**financing charges**).⁹

3.24 These costs are then depreciated over a 50-year period using the annuity formula and the WACC applied to other capital costs.

3.25 The CBH Model includes both a design, construction and project management cost and a financing charge for each Requested Route calculated in accordance with these principles.

3.26 However, CBH submits that these costs are too high, and are unlikely to reflect the cost of design, construction and project management adopting efficient practices. It is also highly unlikely that these costs would be simply set as a percentage of total costs (eg at a rate of 20% of the total cost of the infrastructure) because this means that these fees will increase where there is a change in replacement asset values. This does not reflect standard practice for charging for these services.

⁸ Approved Costing Principles, page 10.

⁹ Approved Costing Principles, page 10.

Government and operator contributions

- 3.27 CBH also submits that payments in relation to the Network made by way of funding from the State and Federal governments, as well as private contributions to capital works by individual operators, should not be included as part of the GRV, to the extent that BR is not required to pay back this funding. Similarly, a return of or on these payments should also not be included. These payments should be treated as a subsidy, and not be used to increase the capital base upon which the ceiling price is estimated.
- 3.28 The Approved Costing Principles provide that:
- Contributed assets will be included in the cost of capital for the purpose of calculating GRV and the Ceiling. Contributed assets include both government and operator contributed assets, and the cost of operating and maintaining these assets will also be included in the calculation of ceiling costs.
- In the case of Government and operator contributed assets, the value of the contributed capital will be accounted for as an equivalent annuity payment which is to be included as revenue earned on the asset, for the purpose of the Ceiling Price Test.¹⁰
- 3.29 This would have the effect of ensuring that the over-payment rules take account of the fact that BR receives revenue in the form of government contributions. However, CBH submits that these contributions should not be included in the GRV calculation.
- 3.30 Including these sums provides a windfall gain to BR, by increasing the price paid by entities using the infrastructure while BR has not expended any additional funds, including through the design, construction and project management cost, financing charges, and working capital margin, even though BR has not financed or provided funds in relation to those parts of the railway infrastructure.

¹⁰ Approved Costing Principles, section 2.3 at page 7.

4. FLOOR COSTS – INCREMENTAL COSTS

Introduction

- 4.1 There is a significant difference between the CBH Floor Costs and the Proposed Floor Costs. This difference appears to be due to the fact that BR has not calculated the incremental costs of providing access to CBH, but has instead largely applied its total costs (irrespective of the extent of CBH's use of a particular route).
- 4.2 The floor costs refer to the costs specified in clause 7(1) of Schedule 4 of the Code. This provides that an operator that is provided with access to a route and associated railway infrastructure must pay for the access not less than the incremental costs resulting from its operations on that route and use of that infrastructure. As explained in the Frontier Report, in economic terms, incremental costs are "avoidable costs".
- 4.3 The Code provides that incremental costs mean (relevantly), in relation to an operator:
- (a) the operating costs; and
 - (b) where applicable –
 - (i) the capital costs; and
 - (ii) the overheads attributable to the performance of the railway owner's access-related functions whether by the railway owner or an associate,
- that the railway owner or the associate would be able to avoid in respect of the 12 months following the proposed commencement of access if it were not to provide access to that operator.¹¹
- 4.4 It is significant that the definition of incremental costs assumes that incremental costs will include **operating costs**, but will only include capital costs and overheads "where applicable". This suggests, consistently with CBH's understanding of the construction and operation of railway infrastructure, that it would be unusual for capital costs and overheads to be incremental costs.
- 4.5 The fact that floor costs are the incremental costs of providing access to CBH is a fundamental issue, and one of critical importance to CBH. This is because the floor costs are the lowest amount that CBH is permitted to pay for access to a route under the Code.
- 4.6 Of course, the determination of floor costs does not set the actual price that the railway owner will charge and the operator will pay. The actual price is a matter that is to be determined in negotiations, or through arbitration, and may be anywhere between the floor costs and the ceiling costs (subject to the ceiling price test in clause 8(3) and the over-payment rules).
- 4.7 Significantly, if the floor costs are set too high, then a railway owner will have a built-in advantage in any pricing negotiations, because it will be guaranteed that it will recover not only its costs, but also that the minimum it can recover will be higher than the true incremental costs of providing access.
- 4.8 Further, setting the floor costs too high may create a barrier to negotiating under the Code. On this point, if the Proposed Floor Costs are approved by the Authority, then CBH will not be able to afford access under the Code.

¹¹ Code, clause 1 of Schedule 4.

Comparison of Floor Costs

- 4.9 The total CBH Floor Costs are \$15,821,504 for the routes CBH has modelled. The total Proposed Floor Costs are \$110,329,225 (or \$92,402,277 for the routes that CBH has modelled). The following table compares the CBH Floor Costs to the Proposed Floor Costs for the equivalent routes.

	CBH Floor Costs (\$)	Proposed Floor Costs (\$)	Difference (\$)
Single-User Route*	9,858,888	25,700,972	15,842,084
Multi-User Route**	3,477,750	58,926,066	55,448,316
Tier 3 & Miling lines***	2,484,866	7,775,239	5,290,373
Total	15,821,504	92,402,277	76,580,773

* The data excludes NG.39a - Dongara (ex) to Arrowsmith.

** The data excludes SG.5a West Kalgoorlie - Kambalda and SG.1b - Koolyanobbing East (ex) to Kalgoorlie, and includes NG.44 (part) - Perenjori to Maya.

*** The data excludes NG.44 (part) - Perenjori to Maya (which is included as a Multi-User Route).

BR has not calculated incremental costs

- 4.10 A number of features of the Proposed Floor Costs strongly suggest that BR has not calculated the incremental costs of providing access to CBH, but appears to have largely included **total** operating costs and overheads in the Proposed Floor Costs.

- 4.11 Significantly, there is:

- (a) **no difference** between the "non-maintenance operating costs" and "overheads" components of the Proposed Floor and Ceiling Costs for the Single-User Routes, Multi-User Routes and the Tier 3 and Miling lines; and
- (b) only a **small difference** between the maintenance operating costs components of the Proposed Floor and Ceiling Costs for each of the Requested Routes. Specifically:
 - (i) for the Single-User Routes, the difference is \$1,228,848 (\$24,601,136 for the Proposed Ceiling Costs versus \$23,372,288 for the Proposed Floor Costs);
 - (ii) for the Multi-User Routes, the difference is \$ [REDACTED] (\$ [REDACTED] for the Proposed Ceiling Costs versus \$ [REDACTED] for the Proposed Floor Costs); and
 - (iii) for the Tier 3 and Miling lines, the difference is \$390,737 (\$7,747,762 for the Proposed Ceiling Costs versus \$7,357,025 for the Proposed Floor Costs).

- 4.12 This outcome is not expected because, as set out in the INDEC Report:

- (a) the indirect overhead and management costs for a railway are generally fixed and depend on the organisational structure and number of full time employees that are in place to manage the network; and
- (b) while maintenance costs may vary with traffic, for very low traffic lines (ie less than 20 million gross tonnes per annum, a threshold that is significantly higher than CBH's entire demand over the Network), the maintenance regime will be almost entirely fixed. All of the Single-User Routes, Tier 3 and Miling lines, and most of the Multi-User Routes are considered to be very low traffic lines, for which these maintenance costs should be fixed. This is because the maintenance gangs will follow a time based routine maintenance regime to fix track defects. In the case of light traffic lines, the majority of track defects are likely to be due to inclement weather (ie wash outs) and not traffic.

CBH share of total traffic on the route	Percentage of maintenance costs allocated to floor costs for a route
100% (CBH is the sole operator)	100% of maintenance costs included in floor costs
50% – 99%	70% of maintenance costs included in floor costs
<50%	No maintenance costs included in floor costs

(d) CBH has not included any overhead costs in the CBH Floor Costs, on the basis that these costs are fixed costs that cannot be attributed to any particular operator, and that removing CBH's demand in relation to a particular route is unlikely to result in BR avoiding any costs (see Part 6 of this submission for an explanation of what overheads are). There is nothing in the Approved Costing Principles, or other information available to CBH, to suggest that any overheads could be incremental costs in relation to any of the Requested Routes (having regard to CBH's demand on each of the Requested Routes).

4.20 By way of illustration, if these rules are applied to the operating costs component of the Proposed Floor Costs, then the Proposed Floor Costs would change as follows.

Route	BR operating costs (\$)	BR operating costs after applying INDEC rules (\$)	% reduction
Single-User Routes	23,372,287	19,287,818	17.5%
Multi-User Routes	██████████	██████████	██████████
Tier 3 & Milling lines	6,719,315	6,719,316	0%
Total	██████████	██████████	██████████

4.21 The most significant area of difference is in relation to the Multi-User Routes. This is consistent with CBH's observation that BR has, in effect, ignored the incremental costs attributable to other operators on the Multi-User Routes, and has used the incremental costs of all operators to calculate the Proposed Floor Costs.

BR's cost allocations appear to be arbitrary

4.22 Further, it appears that BR has simply applied unexplained "factors" to increase the maintenance operating costs component of the Proposed Floor Costs to determine the maintenance operating costs component of the Proposed Ceiling Costs (or vice-versa), as follows:

Route	Proposed Floor Costs – Maintenance (\$)	Proposed Ceiling Costs – Maintenance (\$)	Difference (%)
Single-User Routes	21,444,641	20,241,598	5.94%
Multi-User Routes	██████████	██████████	5.94%
Tier 3 & Milling lines	6,965,012	6,574,274	5.94%
Total	██████████	██████████	██████████

4.23 As explained in the INDEC Report, a more differentiated outcome would be expected, particularly between different types of route. For example, the more heavily used parts of the Network (such as Midland to Avon) should have a significantly different cost profile to the lightly trafficked lines (such as Dongara to Arrowsmith).

Multi-User Routes versus Single-User Routes

4.24 The most significant differences between the CBH Floor Costs and the Proposed Floor Costs are in relation to the Multi-User Routes. This is shown in the table below.

Route	Proposed Floor Costs (\$)	CBH Floor Costs (\$)	% Difference	CBH % of BR GTKs
Avon - Koolyanobbing East	[REDACTED]	\$96,390	[REDACTED]	6.67%
Kambalda - Esperance	[REDACTED]	\$1,670	[REDACTED]	0.12%
Narngulu - Geraldton	[REDACTED]	\$48,249	[REDACTED]	17.48%
Narngulu - Perenjori	[REDACTED]	\$11,748	[REDACTED]	6.30%
Midland - Avon	[REDACTED]	\$620,662	[REDACTED]	25.62%
Midland - Kwinana	[REDACTED]	\$2,747,280	[REDACTED]	46.29%

4.25 The largest differences between the Proposed Floor Costs and the CBH Floor Costs are where CBH has the lowest share of total traffic. It appears that BR has not sought to differentiate between incremental costs attributable to providing access to CBH, as opposed to the total costs attributable to a route. As a consequence, the Proposed Floor Costs suggest that CBH must pay for substantially **all** of BR's operating costs and overheads on each route, whether or not there are other operators on the route. If this approach is applied to the Network, then it will result in a situation where CBH pays for almost all of BR's operating costs and overheads, and other operators are not required to contribute to those costs.

4.26 This proposition does not withstand any scrutiny, and therefore must be rejected by the Authority. CBH submits that this means that the incremental costs must be calculated for each route without using BR's costs information.

5. OPERATING COSTS

Introduction

5.1 There are also significant differences between the operating costs component of the CBH Floor and Ceiling Costs compared to the Proposed Floor and Ceiling Costs.

5.2 These differences are due to two reasons:

- (a) in the case of floor costs, it appears that BR has not calculated the incremental costs of providing access to CBH, but has instead largely used its total costs (irrespective of the extent of CBH's use of a particular route) as discussed in Part 4 of this submission; and
- (b) CBH has developed operating costs using an efficient operating and maintenance model, which delivers materially lower costs than those calculated by BR.

Comparison of operating costs

5.3 The total operating costs component of the CBH Ceiling Costs is \$43,166,824, and the total operating costs component of the CBH Floor Costs is \$15,821,503, for the routes CBH has modelled. The total operating costs component of the Proposed Ceiling Costs is \$ [REDACTED] for all routes (or \$ [REDACTED] for the routes that CBH has modelled) and the total operating costs component of the Proposed Floor Costs is \$ [REDACTED] for all routes (or \$ [REDACTED] for the routes that CBH has modelled).

5.4 The following table sets out the operating costs component of the CBH Floor and Ceiling Costs, and the operating costs component of the Proposed Floor and Ceiling Costs for the equivalent routes.

	CBH Operating Costs – Floor (\$)	BR Operating Costs – Floor (\$)	Difference (\$)
Single-User Route*	9,810,639	22,891,075	13,080,436
Multi-User Route**	3,525,999	[REDACTED]	[REDACTED]
Tier 3 & Miling lines***	2,489,049	7,357,026	4,867,977
Total	15,825,687	[REDACTED]	[REDACTED]
	CBH Operating Costs – Ceiling (\$)	BR Operating Costs – Ceiling (\$)	Difference (\$)
Single-User Route*	11,084,834	24,094,121	13,009,287
Multi-User Route**	28,687,242	[REDACTED]	[REDACTED]
Tier 3 & Miling lines***	3,394,748	7,075,788	3,681,040
Total	43,166,824	[REDACTED]	[REDACTED]

* The data excludes NG.39a – Dongara (ex) to Arrowsmith.

** The data excludes SG.5a West Kalgoorlie – Kambalda and SG.1b – Koolyanobbing East (ex) and includes NG.44 (part) – Perenjori to Maya.

*** The data excludes NG.44 (part) – Perenjori to Maya (which is included as a Multi-User Route).

CBH's operating costs categories compared to BR's operating costs categories

5.5 The BR costs information available to CBH provides a lump-sum for maintenance operating costs and a lump sum for non-maintenance operating costs.

5.6 These are the same categories that were used by BR in the public version of its costing model published in 2009 (the **2009 Public Asset Pricing Model**), and cover all maintenance and non-maintenance operating costs.

Costs are high

5.7 BR has provided "lump sums" for maintenance operating costs, non-maintenance operating costs and overheads. It is therefore impossible for CBH to comment on the underlying components used to develop those costs.

5.8 However, INDEC has independently developed cost estimates using efficient practices based on a "bottom up" methodology for track maintenance. The build-up of costs was based on estimates of labour, plant and material costs for various maintenance activities, and an estimate of the frequency of those maintenance activities.

5.9 The CBH Model allocates operating costs across five categories. In comparison, the BR costs information available to CBH divides operating costs into "maintenance" and "non-maintenance". The CBH operating costs categories compared to the two main BR operating costs categories are set out below.

Maintenance	Non-maintenance
Track inspection and reactive maintenance works	Access manager, general manager and safety inspectors
	Infrastructure management
	Train control costs
	Perway operations

5.10 CBH submits that the operating costs set out in the CBH Model represent costs based on efficient practices, and should be adopted for the purposes of determining the relevant floor and ceiling costs.

Approved Costing Principles

5.11 The Approved Costing Principles provide some insight into how BR *should* have calculated the operating costs. As explained below, CBH has concerns about the principles incorporated in the Approved Costing Principles.

Maintenance costs should not be annualised

5.12 The Approved Costing Principles provide that maintenance costs of the Network are estimated over the life of the asset, and then annualised to represent an average annual maintenance charge over the life of the asset.¹² CBH submits that this is not an appropriate method of estimation, since GRV makes the assumption that the network is re-built every three years (see page 17, section 5.1 of the Approved Costing Principles). The Authority should not annualise maintenance costs over the life of the asset if it is committed to re-valuing the Network every three years.

Working capital

5.13 Section 3.3 of the Approved Costing Principles states that BR has included in its operating costs an annual working capital charge that is calculated by multiplying ½ of the WACC by

¹² Approved Costing Principles, page 15.

the annuity.¹³ CBH's view is that this is excessive, as it means that BR has assumed that payments are delayed by six months.

- 5.14 BR's payment terms involve monthly invoices, payable within 21 days, and this is reflected in the standard access agreement provided by BR. As a result, working capital should be calculated on the basis of 1/12 of the WACC, not 1/2.

Inclusion of capital items in operating costs and overheads

- 5.15 CBH is also concerned that the Approved Costing Principles include items of a capital nature as operating costs. Section 2.2 of the Approved Costing Principles state that:

Assets which support operating functions will be included in the operating cost or overhead cost calculations as appropriate. Assets included in this category are motor vehicles, computers, printers, facsimile machines, photocopiers, system hardware and software, mobile and fixed communications, office furniture and equipment. The cost of these assets will be calculated on a net basis.

- 5.16 This means that assets that might ordinarily be classified as "capital" in nature could be treated as "operating costs" or "overheads". CBH is concerned that the Authority has previously allowed BR to adopt this approach. For example, in the Authority's final determination on the proposed 2009-2010 floor and ceiling costs for WestNet Rail (dated 30 June 2009), it stated that:¹⁴

Assets that support operating functions are not included in the asset base for capital cost calculations. These are included in the operating cost or overhead cost calculations as appropriate. Assets in this category include motor vehicles, computers, printers, facsimile machines, photocopiers, system hardware and software, mobile and fixed communications, office furniture and equipment. The cost of these assets is to be calculated on a net basis.

- 5.17 This is potentially significant, as "operating costs" and "overheads" are recovered by a railway owner *differently* to "capital costs". Capital costs, unlike operating costs and overheads, are recovered through the annuity formula. Broadly, the effect of recovering assets of a capital nature as operating costs or overheads is to allow BR to recover the full value of those costs "as and when" they are incurred, rather than through an annuity.
- 5.18 CBH submits that costs that are ordinarily classified as capital in nature should not be included as "operating costs" or "overheads". CBH considers the preferred approach to be that "capital costs" cover the costs comprising both the depreciation and risk-adjusted return on the relevant "railway infrastructure". Railway infrastructure comprises "the facilities necessary for the operation of a railway". The term, "facility" encompasses all assets that are equipment or physical means of doing something, and which are "necessary for the operation of a railway". It follows that items of a physical nature (such as motor vehicles, computers etc) should be included (as part of the GRV calculation) as "facilities necessary for the operation of a railway" and should therefore be accounted for as capital costs, rather than as operating costs or overheads.

¹³ Approved Costing Principles, section 3.3, page 16.

¹⁴ See the Authority's WestNet Rail's Floor and Ceiling Costs Review - Final Determination on the Proposed 2009-10 Floor and Ceiling Costs (dated 30 June 2009).

6. OVERHEADS ATTRIBUTABLE TO ACCESS-RELATED FUNCTIONS

6.1 There are also significant differences between the overheads used in the CBH Floor and Ceiling Costs compared to the Proposed Floor and Ceiling Costs.

6.2 The differences are difficult to explain because the CBH Model essentially adopts the overheads proposed by BR in the 2009 Public Asset Pricing Model, escalated based on the ABS wage index for Western Australia. The fact that BR has proposed significantly higher overheads suggests that BR has radically increased its overhead costs, or alternatively (or in addition), has increased the amount of overheads it attributes to CBH.

Comparison of overheads

6.3 The CBH Model calculates that BR would incur \$6,429,718 in overheads, as part of the CBH Ceiling Costs. The CBH Model does not allocate any overheads to the CBH Floor Costs (for the reasons set out in Part 4 of this submission). By contrast, BR estimates that it will incur [REDACTED] in overheads, both as part of the Proposed Floor Costs and Proposed Ceiling Costs.

6.4 The table below shows a "like-for-like" comparison of CBH's calculation of overheads compared to BR's calculation of overheads for equivalent routes.

	CBH Overheads (\$)		BR Overheads (\$)	Difference (\$)
	Floor	Ceiling	Proposed Floor Cost & Proposed Ceiling Cost is the same	Difference in ceiling overheads
Single-User Route*	0	1,053,117	3,448,897	2,395,780
Multi-User Route**	0	7,529,628	[REDACTED]	[REDACTED]
Tier 3 & Miling lines***	0	66,973	1,055,921	964,677
Total	0	8,649,718	[REDACTED]	[REDACTED]

* The data excludes NG.39a – Dongara (ex) to Arrowsmith.

** The data excludes SG.5a West Kalgoorlie – Kambalda and SG.1b – Koolyanobbing East (ex) to Kalgoorlie.

*** The data excludes NG.44 (part) – Perenjori to Maya (which is included as a Multi-User Route).

6.5 INDEC has advised CBH that it is difficult to assess whether network management and overhead costs are efficient through benchmarking, as they depend on the size, type and traffic on a network. This is exemplified by the fact that BR has not provided any information about the quantum of those costs. As a consequence, the network management and overhead costs used in the CBH Model are the same as those included in the 2009 Public Asset Pricing Model, factored up on the basis of the ABS wage index for Western Australia. However, these costs should be scrutinised carefully by the Authority to ensure they are efficient.

6.6 Importantly, the overhead costs must be "attributable to" the performance by BR of certain access-related functions. This means that when assessing the overhead costs included by BR in the calculation of "total costs", it is important to ensure that only those overheads that are attributable to BR's access-related functions have been included, and not general overheads attributable to BR's wider business.

6.7 Access-related functions are those functions that are involved in arranging the provision of access to railway infrastructure under the Code.¹⁵

¹⁵ Code, clause 1 of Schedule 4.

Quantum of overheads appears to be high

- 6.8 CBH is concerned that the amount of \$ [REDACTED] in relation to overheads is high.
- 6.9 To put this amount in perspective, BR's total operating costs from the Proposed Ceiling Costs are \$ [REDACTED]. This means that nearly **one third** of BR's non-capital costs are overheads attributed to access-related functions.
- 6.10 This amount is only in respect of those parts of the Network that CBH uses, which comprises 3,190 kilometres of the entire 5,100 kilometre Network (approximately 62%).
- 6.11 Further, CBH accounts for only approximately 10% of the total freight transported on the Network. (This is on the basis that BR's website states that, in 2013, 70 million tonnes of freight was transported on the Network,¹⁶ and CBH's total freight is between 7 and 10 million tonnes.)
- 6.12 Given that BR has indicated that overheads are allocated on the basis of "GTK & Train Numbers",¹⁷ this suggests that BR's total overheads for the Network would be significantly in excess of \$ [REDACTED] if BR's methodology was to be applied.

Approved Costing Principles

- 6.13 CBH also has concerns about the principles that BR must apply in respect of overheads.
- 6.14 The Approved Costing Principles provide that there are two categories of overhead costs: WestNet¹⁸ overheads and corporate overheads.¹⁹
- 6.15 The WestNet overheads include:
- corridor management, access compliance costs, net cost of computers, office equipment, furniture, motor vehicles, safety accreditation costs, and [BR] management costs, information systems, payroll, human resource management, accounting/finance, company secretarial and legal.²⁰
- 6.16 CBH repeats its concerns (set out at paragraphs 5.15 to 5.18 of this submission above) about the inclusion of costs that are capital in nature as "overheads". CBH submits that items of a physical nature (such as motor vehicles, computers etc) should be included (as part of the GRV calculation) as "facilities necessary for the operation of a railway" and should therefore be accounted for as capital costs, rather than as overheads.
- 6.17 The Approved Costing Principles do not state what the corporate overheads are, except that:
- WestNet's parent company provides certain corporate overhead functions to WestNet, at WestNet's expense.²¹
- 6.18 It is therefore not clear whether the Proposed Floor and Ceiling Costs include corporate overheads, or whether those overheads are attributable to WestNet's access related functions or not.

¹⁶ See <http://www.brookfieldrail.com/about-us/> (accessed at 2 April 2014).

¹⁷ Approved Costing Principles, section 7.2, page 21. The Approved Costing Principles note that GTK's are used to allocate costs which vary more in quantum due to volumes moved, and train movements are used to allocate costs which vary more in quantum due to the number of train movements (section 7.2.1).

¹⁸ WestNet is the former name of BR. It is the same legal entity.

¹⁹ Approved Costing Principles, section 4.1, page 17.

²⁰ Approved Costing Principles, section 7.2, page 21.

²¹ Approved Costing Principles, section 4.1, page 17.

SCHEDULE A

Requested Routes (as clarified by CBH on 13 February 2014) and relationship with Schedule 1 Routes and BR Routes

Requested Route, being the track between: ²²	Type of track	Schedule 1 Route ²³ within which Requested Route comes:	Schedule 1 Route number	BR Route
Amery and Burakin	Narrow gauge	The track between Amery and Kalannie	36	NG.36 – Amery (ex) to Kalannie
Burakin and Kalannie	Narrow gauge			
Albany and Redmond	Narrow gauge	The track between Avon and Albany	23	NG.23 – Avon (ex) to Albany
Avon Yard and York	Narrow gauge			
Katanning and Tambellup	Narrow gauge			
Katanning and Wagin	Narrow gauge			
Narrogin and Wagin	Narrow gauge			
Narrogin and York	Narrow gauge			
Redmond and Tambellup	Narrow gauge			
Avon Yard and West Merredin	Standard gauge	The track between Avon and Kalgoorlie	1	SG.1a – Avon to Koolyanobbing East SG.1b – Koolyanobbing East (ex) to Kalgoorlie
Koolyanobbing East and West Merredin				
Koolyanobbing East and Kalgoorlie				
Avon Yard and Goomalling	Narrow gauge	The track between Avon Yard and McLevie	34	NG.34 – Avon Yard (ex) to McLevie
Goomalling and McLevie	Narrow gauge			
Burakin and Beacon (Bonnie Rock)	Narrow gauge	The track between Burakin and Beacon	37	NG.37 – Burakin (ex) to Beacon
		All tracks servicing the facilities of CBH on the narrow gauge network except private sidings that are excluded by paragraph (h) of the definition of railway infrastructure in section 3 of the Code.	42	
Amery and Goomalling	Narrow gauge	The track between Goomalling and Mukinbudin	35	Ng.35 – Goomalling (ex) to Mukinbudin
Amery and Wyalkatchem	Narrow gauge			
Mukinbudin and Wyalkatchem	Narrow gauge			
Hyden and Lake Grace	Narrow gauge	The track between Lake Grace and Hyden	28	NG.28 – Lake Grace (ex) to Hyden

²² To avoid doubt, the route includes all associated railway infrastructure necessary for the purpose of carrying on rail operations of the nature described in the Proposal.

²³ Each of the routes listed in this column are routes specified in Schedule 1 to the Code.

Requested Route, being the track between: ²²	Type of track	Schedule 1 Route ²³ within which Requested Route comes:	Schedule 1 Route number	BR Route
Avon Yard and Toodyay West	Dual gauge	The track between Midland and Avon	44	DG.44 – Midland to Avon (ex)
Midland and Millendon Junction	Dual gauge			
Millendon Junction and Toodyay West	Dual gauge			
Cockburn East and Cockburn South	Dual gauge	The track between Midland and Kwinana	45	DG.45 – Midland (ex) to Kwinana
Cockburn East and Kenwick East	Dual gauge			
Cockburn South and Kwinana	Dual gauge			
Forrestfield and Kenwick East	Dual gauge			
Forrestfield and Woodbridge South	Dual gauge			
Midland and Woodbridge South	Dual gauge			
Kwinana and Kwinana:CBH	Dual gauge			
Dongara and Moora	Narrow gauge	The track between Millendon Junction and Geraldton	38	NG.38a – Millendon Junction to Narngulu (ex) NG.38b – Narngulu to Geraldton
Dongara and Narngulu	Narrow gauge			
Geraldton and Narngulu	Narrow gauge			
Millendon Junction and Moora	Narrow gauge			
Perenjori and Maya (part of Mullewa and Maya in the CBH Model)	Narrow gauge	The track between Narngulu and Maya	40	NG.40a – Narngulu (ex) to Perenjori NG.44 (part) – Perenjori to Maya (Tier 3)
Mullewa and Maya	Narrow gauge			
Mullewa and Narngulu	Narrow gauge			
Bruce Rock and West Merredin	Narrow gauge	The track between Narrogin and West Merredin	25	NG.25 – Narrogin to West Merredin (Tier 3)
Bruce Rock and Yillimining	Narrow gauge			
Narrogin and Yillimining	Narrow gauge			

Requested Route, being the track between: ²²	Type of track	Schedule 1 Route ²³ within which Requested Route comes:	Schedule 1 Route number	BR Route
Toodyay West and Miling	Narrow gauge	The track between Toodyay West and Miling	41	NG.41 – Toodyay West to Miling (the Miling Line)
Lake Grace and Newdegate	Narrow gauge	The track between Wagin and Newdegate	27	NG.27 – Wagin (ex) to Newdegate
Lake Grace and Wagin	Narrow gauge			
Esperance and Kambalda	Standard gauge	The track between West Kalgoorlie and Esperance	5	SG.5b – Kambalda to Esperance
West Kalgoorlie and Kambalda				SG.5a – West Kalgoorlie (ex) to Kambalda (ex)
Kondinin and West Merredin	Narrow gauge	The track between West Merredin and Kondinin	32	NG.32 (part) – West Merredin to Kondinin (Tier 3)
Kulin and Yilliminning	Narrow gauge	The track between Yilliminning and Kulin	26	NG.26 – Kulin to Yilliminning
Arrowsmith and Dongara	Narrow gauge	The track between Dongara and Eneabba South. ²⁴	39	NG.39a – Dongara (ex) to Arrowsmith
To the extent the tracks do not come within another route specified above, all tracks servicing the facilities of CBH on the standard gauge network except private sidings that are excluded by paragraph (h) of the definition of railway infrastructure in section 3 of the Code.	Standard gauge	All tracks servicing the facilities of CBH on the standard gauge network except private sidings that are excluded by paragraph (h) of the definition of railway infrastructure in section 3 of the Code.	8	Not specifically addressed (but costs are incorporated into the BR Routes above).
To the extent the spur line tracks do not come within another route specified above, all spur line tracks servicing customer facilities of CBH on the standard gauge network except private sidings that are excluded by paragraph (h) of the definition of railway infrastructure in section 3 of the Code.	Standard gauge	All spur line tracks servicing customer facilities of CBH on the standard gauge network except private sidings that are excluded by paragraph (h) of the definition of railway infrastructure in section 3 of the Code.	9	Not specifically addressed (but costs are incorporated into the BR Routes above).
To the extent the tracks do not come within another route specified above, all tracks servicing the facilities of CBH on the narrow gauge network except private sidings that are excluded by paragraph (h) of the definition of railway infrastructure in section 3 of the Code.	Narrow gauge	All tracks servicing the facilities of CBH on the narrow gauge network except private sidings that are excluded by paragraph (h) of the definition of railway infrastructure in section 3 of the Code.	42	Not specifically addressed (but costs are incorporated into the BR Routes above).

Requested Route, being the track between: ²²	Type of track	Schedule 1 Route ²³ within which Requested Route comes:	Schedule 1 Route number	BR Route
To the extent the spur line tracks do not come within another route specified above, all spur line tracks servicing customer facilities of CBH on the narrow gauge network except private sidings that are excluded by paragraph (h) of the definition of railway infrastructure in section 3 of the Code.	Narrow gauge	All spur line tracks servicing customer facilities of CBH on the narrow gauge network except private sidings that are excluded by paragraph (h) of the definition of railway infrastructure in section 3 of the Code.	43	Not specifically addressed (but costs are incorporated into the BR Routes above).
To the extent the spur line tracks do not come within another route specified above, all spur line tracks servicing customer facilities of CBH on the dual gauge network except private sidings that are excluded by paragraph (h) of the definition of railway infrastructure in section 3 of the Code.	Dual gauge	All spur line tracks servicing customer facilities of CBH on the dual gauge network except private sidings that are excluded by paragraph (h) of the definition of railway infrastructure in section 3 of the Code.	48	Not specifically addressed (but costs are incorporated into the BR Routes above).

Colour key to the above table.	
[Grey box]	Multi-User Route
[White box]	Single-User Route
[Grey box]	Tier 3 & Miling lines



SCHEDULE B

Tier 3 and Miling Lines

The **Tier 3 lines** are the tracks between:

1. Narrogin and West Merredin (item 25 in Schedule 1 to the Code);
2. Kulin and Yilliminning (item 26 in Schedule 1 to the Code);
3. West Merredin and Kondinin (item 32 in Schedule 1 to the Code); and
4. Perenjori and Maya (part of item 40 in Schedule 1 to the Code).

The **Miling line** is the track between Toodyay West and Miling (item 41 of Schedule 1 to the Code).

SCHEDULE C

BR Costs Information

1. SINGLE-USER ROUTE FLOOR AND CEILING COST SUMMARY

All figures are in September 2013 dollars

Single-User Route	Annual (\$) Ceiling	Annual (\$) Ceiling Operating Costs Total	Annual (\$) Ceiling Maint. Operating Costs	Annual (\$) Ceiling Non-Maint. Operating Costs	Annual (\$) Ceiling Overheads	Annual (\$) Ceiling Capital Cost Annuity
NG23 – Avon (ex) to Albany	60,605,548	7,170,160	6,162,892	1,007,268	1,096,070	52,339,319
NG.27 – Wagin (ex) to Newdegate	21,816,645	2,289,193	1,982,758	306,435	335,516	19,191,936
NG.28 – Lake Grace (ex) to Hyden	10,823,394	1,151,505	997,362	154,142	168,770	9,503,119
NG.34 – Avon Yard (ex) to McLevie	24,810,404	2,645,042	2,423,033	222,009	354,268	21,811,094
NG.35 – Goomalling (ex) to Mukinbudin	22,290,936	2,278,395	2,044,637	233,758	354,987	19,666,554
NG.36 – Amery (ex) to Kalannie	11,819,298	1,192,567	1,070,212	122,355	181,098	10,445,633
NG.37 – Burakin (ex) to Beacon	8,241,280	859,497	771,314	88,182	130,519	7,251,264
NG.38a - Millendon Junction to Narngulu (ex)	54,937,941	6,507,762	5,992,433	515,329	827,669	47,602,509
NG.39a – Dongara (ex) to Arrowsmith	4,834,346	507,017	459,962	47,054	77,833	4,249,495
TOTAL	220,179,791	24,601,136	21,904,604	2,696,532	3,517,730	192,060,925

Single-User Route	Annual (\$) Floor	Annual (\$) Floor Operating Costs Total	Annual (\$) Floor Maint. Operating Costs	Annual (\$) Floor Non-Maint. Operating Costs	Annual (\$) Floor Overheads	Annual (\$) Floor Capital Cost Annuity
NG23 – Avon (ex) to Albany	7,290,491	6,824,421	5,817,153	1,007,268	1,096,070	
NG.27 – Wagin (ex) to Newdegate	2,513,476	2,177,960	1,871,525	306,435	335,516	
NG.28 – Lake Grace (ex) to Hyden	1,264,323	1,095,552	941,410	154,142	168,770	
NG.34 – Avon Yard (ex) to McLevie	2,863,377	2,509,109	2,287,101	222,009	354,268	
NG.35 – Goomalling (ex) to Mukinbudin	2,509,678	2,163,691	1,929,933	233,758	345,987	
NG.36 – Amery (ex) to Kalannie	1,313,626	1,132,528	1,010,174	122,355	181,098	
NG.37 – Burakin (ex) to Beacon	946,745	816,226	728,044	88,182	130,519	
NG.38a - Millendon Junction to Narngulu (ex)	6,999,256	6,171,587	5,656,258	515,329	827,669	
NG.39a – Dongara (ex) to Arrowsmith	559,046	481,213	434,159	47,054	77,833	
TOTAL	26,890,018	23,372,288	20,675,756	2,696,532	3,517,730	

2. MULTI-USER ROUTE FLOOR AND CEILING COST SUMMARY

All figures are in September 2013 dollars

Multi-User Route	Annual (\$) Ceiling	Annual (\$) Ceiling Operating Costs Total	Annual (\$) Ceiling Maint. Operating Costs	Annual (\$) Ceiling Non-Maint. Operating Costs	Annual (\$) Ceiling Overheads	Annual (\$) Ceiling Capital Cost Annuity
SG.1a – Avon to Koolyanobbing East						
SG.5b – Kambalda to Esperance						
NG.38b – Narngulu to Geraldton						
NG.40a – Narngulu (ex) to Perenjori						
DG.44 – Midland to Avon (ex)						
DG.45 – Midland (ex) to Kwinana						
SG.1b – Koolyanobbing East (ex) to Kalgoorlie						
SG.5a – West Kalgoorlie (ex) to Kambalda (ex)						
TOTAL	320,501,524					

Multi-User Route	Annual (\$) Floor	Annual (\$) Floor Operating Costs Total	Annual (\$) Floor Maint. Operating Costs	Annual (\$) Floor Non-Maint. Operating Costs	Annual (\$) Floor Overheads	Annual (\$) Floor Capital Cost Annuity
SG.1a – Avon to Koolyanobbing East						
SG.5b – Kambalda to Esperance						
NG.38b – Narngulu to Geraldton						
NG.40a – Narngulu (ex) to Perenjori						
DG.44 – Midland to Avon (ex)						
DG.45 – Midland (ex) to Kwinana						
SG.1b – Koolyanobbing East (ex) to Kalgoorlie						
SG.5a – West Kalgoorlie (ex) to Kambalda (ex)						
TOTAL	74,925,325					

3. SINGLE-USER ROUTE GRV SUMMARY

All figures are in September 2013 dollars

Single-User Route	GRV (\$) Rail	GRV (\$) Sleepers	GRV (\$) Ballast	GRV (\$) Culverts	GRV (\$) Bridges	GRV (\$) Turnouts
NG.23 – Avon (ex) to Albany	72,672,537	65,096,490	63,293,623	15,688,812	21,479,736	32,449,416
NG.27 – Wagin (ex) to Newdgate	29,284,504	26,156,258	23,649,202	7,625,866	1,101,890	10,136,965
NG.28 – Lake Grace (ex) to Hyden	14,821,457	13,221,598	12,224,713	3,308,829	292,338	5,179,767
NG.34 – Avon Yard (ex) to McLevie	30,236,807	27,157,665	26,403,107	6,972,102	8,893,787	14,345,525
NG.35 – Goomalling (ex) to Mukinbudin	29,367,374	26,319,395	25,431,074	4,064,203	343,310	12,625,681
NG.36 – Amery (ex) to Kalannie	15,339,767	13,748,315	13,291,920	2,745,715	-	6,823,735
NG.37 – Burakin (ex) to Beacon	11,112,047	9,951,447	9,593,996	1,353,495	-	4,532,296
NG.38a – Millendon Junction to Narngulu (ex)	69,249,471	64,196,983	59,967,310	11,336,581	12,623,437	18,154,475
NG.39a – Dongara (ex) to Arrowsmith	6,469,499	5,783,711	5,540,735	190,028	2,267,577	323,735
TOTAL	278,553,463	251,631,863	239,395,680	53,285,631	47,002,075	104,571,595

Single-User Route	GRV (\$) Earthworks	GRV (\$) Level Crossing Surfaces	GRV (\$) Track laying	GRV (\$) Walkways	GRV (\$) Signage	GRV (\$) Access Roads
NG.23 – Avon (ex) to Albany	190,410,704	3,003,684	75,558,163	119,636	1,513,388	4,286,028
NG.27 – Wagin (ex) to Newdgate	74,161,009	1,016,969	29,427,851	31,850	598,552	1,695,144
NG.28 – Lake Grace (ex) to Hyden	37,355,976	298,121	14,823,235	20,442	301,214	853,060
NG.34 – Avon Yard (ex) to McLevie	79,910,099	1,020,652	31,750,724	42,791	633,490	1,794,091
NG.35 – Goomalling (ex) to Mukinbudin	77,414,396	794,369	30,718,828	47,967	618,014	1,750,263
NG.36 – Amery (ex) to Kalannie	40,461,758	546,548	16,055,641	23,728	321,091	909,354
NG.37 – Burakin (ex) to Beacon	29,204,957	301,804	11,588,827	20,093	234,026	662,780
NG.38a – Millendon Junction to Narngulu (ex)	182,657,952	2,473,719	72,480,553	106,253	1,475,914	4,179,899
NG.39a – Dongara (ex) to Arrowsmith	16,866,477	117,869	6,692,792	-	141,292	400,150
TOTAL	728,443,328	9,573,737	290,096,615	412,759	5,836,983	16,530,768

Single-User Route	GRV (\$) Fences	GRV (\$) CTC	GRV (\$) TCS/TOS System	GRV (\$) Self Restoring Points	GRV (\$) Asset Protection	GRV (\$) Level Crossing Protection
NG.23 – Avon (ex) to Albany	199,057	-	224,343	1,672,562	-	16,822,899
NG.27 – Wagin (ex) to Newdgate	-	-	75,317	-	-	1,814,640
NG.28 – Lake Grace (ex) to Hyden	-	-	37,886	-	-	-
NG.34 – Avon Yard (ex) to McLevie	74,646	-	114,331	1,705,316	-	4,360,340
NG.35 – Goomalling (ex) to Mukinbudin	49,764	-	111,659	-	-	2,854,293
NG.36 – Amery (ex) to Kalannie	49,764	-	58,445	-	-	1,451,712
NG.37 – Burakin (ex) to Beacon	24,882	-	42,122	-	-	-
NG.38a – Millendon Junction to Narngulu (ex)	149,293	-	185,797	1,705,316	523,859	10,610,558
NG.39a – Dongara (ex) to Arrowsmith	49,764	-	17,472	-	-	725,856
TOTAL	597,170	-	867,373	5,083,193	523,859	38,630,297

Single-User Route	GRV (\$) Major Comms Sites (share)	GRV (\$) Local Comms Sites	GRV (\$) DCPM Fees	GRV (\$) Finance Cost
NG.23 – Avon (ex) to Albany	583,539	4,207,012	113,856,326	35,453,764
NG.27 – Wagin (ex) to Newdgate	230,009	157,323	41,432,670	13,974,540
NG.28 – Lake Grace (ex) to Hyden	115,699	78,661	20,586,599	7,029,441
NG.34 – Avon Yard (ex) to McLevie	242,864	523,133	47,234,294	14,755,580
NG.35 – Goomalling (ex) to Mukinbudin	237,187	495,275	42,648,611	14,419,663
NG.36 – Amery (ex) to Kalannie	124,150	1,051,598	22,600,648	7,542,890
NG.37 – Burakin (ex) to Beacon	89,476	161,942	15,774,838	5,436,246
NG.38a – Millendon Junction to Narngulu (ex)	567,399	3,249,048	103,178,763	34,473,155
NG.39a – Dongara (ex) to Arrowsmith	53,358	853,869	9,298,837	3,241,829
TOTAL	2,243,682	10,777,861	416,611,586	136,318,107

4. MULTI-USER ROUTE GRV SUMMARY

All figures are in September 2013 dollars

Multi-User Route	GRV(\$) Rail	GRV(\$) Sleepers	GRV(\$) Ballast	GRV(\$) Culverts	GRV(\$) Bridges	GRV(\$) Turnouts
SG.1a - Avon to Koolyanobbing East						
SG.5b - Kambalda to Esperance						
NG.38b - Narngulu to Geraldton						
NG.40a - Narngulu (ex) to Perenjori						
DG.44 - Midland to Avon (ex)						
DG.45 - Midland (ex) to Kwinana						
SG.1b - Koolyanobbing East (ex) to Kalgoorlie						
SG.5a - West Kalgoorlie (ex) to Kambalda (ex)						
TOTAL						

Multi-User Route	GRV(\$) Earthworks	GRV(\$) Level Crossing Surfaces	GRV(\$) Tracklaying	GRV(\$) Walkways	GRV(\$) Signage	GRV(\$) Access Roads
SG.1a - Avon to Koolyanobbing East						
SG.5b - Kambalda to Esperance						
NG.38b - Narngulu to Geraldton						
NG.40a - Narngulu (ex) to Perenjori						
DG.44 - Midland to Avon (ex)						
DG.45 - Midland (ex) to Kwinana						
SG.1b - Koolyanobbing East (ex) to Kalgoorlie						
SG.5a - West Kalgoorlie (ex) to Kambalda (ex)						
TOTAL						

Multi-User Route	GRV(\$) Fences	GRV(\$) CTC	GRV(\$) TCS/TOS System	GRV(\$) Self Restoring Points	GRV(\$) Asset Protection	GRV(\$) Level Crossing Protection
SG.1a - Avon to Koolyanobbing East	[REDACTED]	[REDACTED]	[REDACTED]		[REDACTED]	[REDACTED]
SG.5b - Kambalda to Esperance			[REDACTED]	[REDACTED]		[REDACTED]
NG.38b - Narngulu to Geraldton	[REDACTED]	[REDACTED]	[REDACTED]		[REDACTED]	[REDACTED]
NG.40a - Narngulu (ex) to Perenjori	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
DG.44 - Midland to Avon (ex)	[REDACTED]	[REDACTED]	[REDACTED]		[REDACTED]	[REDACTED]
DG.45 - Midland (ex) to Kwinana	[REDACTED]	[REDACTED]	[REDACTED]			[REDACTED]
SG.1b - Koolyanobbing East (ex) to Kalgoorlie	[REDACTED]	[REDACTED]	[REDACTED]		[REDACTED]	[REDACTED]
SG.5a - West Kalgoorlie (ex) to Kambalda (ex)	[REDACTED]	[REDACTED]	[REDACTED]		[REDACTED]	
TOTAL	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Multi-User Route	GRV(\$) Major Comms Sites (share)	GRV(\$) Local Comms Sites	GRV(\$) DCPM Fees	GRV(\$) Finance Cost
SG.1a - Avon to Koolyanobbing East	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
SG.5b - Kambalda to Esperance	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
NG.38b - Narngulu to Geraldton	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
NG.40a - Narngulu (ex) to Perenjori	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
DG.44 - Midland to Avon (ex)	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
DG.45 - Midland (ex) to Kwinana	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
SG.1b - Koolyanobbing East (ex) to Kalgoorlie	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
SG.5a - West Kalgoorlie (ex) to Kambalda (ex)	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
TOTAL	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

5. TIER 3 AND MILLING LINE FLOOR AND CEILING COST SUMMARY

All figures are in September 2013 dollars

Tier 3/Milling Line	Annual(\$) Ceiling	Annual(\$) Ceiling Operating Costs Total	Annual(\$) Ceiling Maint Operating Costs	Annual(\$) Ceiling Non-Maint Operating Costs	Annual(\$) Ceiling Overheads	Annual(\$) Ceiling Capital Cost Annuity
*NG.41 – Toodyay West to Milling	16,766,365	1,638,875	1,470,731	168,145	248,872	14,878,618
**NG.25 – Narrogin to West Merredin	25,505,284	2,619,143	2,344,970	274,173	387,529	22,498,611
**NG.26 – Yilliminning to Kulin	11,150,541	1,155,610	1,025,678	129,932	169,503	9,825,428
**NG.32 – West Merredin to Kondinin	16,339,543	1,662,160	1,512,874	149,287	250,017	14,427,365
**NG.40c – Perenjori to Maya	7,242,384	671,974	610,759	61,215	100,934	6,469,476
TOTAL	77,004,117	7,747,762	6,965,011	782,752	1,156,857	68,099,498

Tier 3/Milling Line	Annual(\$) Floor	Annual(\$) Floor Operating Costs Total	Annual(\$) Floor Maint Operating Costs	Annual(\$) Floor Non-Maint Operating Costs	Annual(\$) Floor Overheads	Annual(\$) Floor Capital Cost Annuity
*NG.41 – Toodyay West to Milling	1,805,240	1,556,368	1,388,223	168,145	248,872	-
**NG.25 – Narrogin to West Merredin	2,875,120	2,487,590	2,213,417	274,173	387,529	-
**NG.26 – Yilliminning to Kulin	1,267,573	1,098,069	968,137	129,932	169,503	-
**NG.32 – West Merredin to Kondinin	1,827,306	1,577,288	1,428,002	149,287	250,017	-
**NG.40c – Perenjori to Maya	738,644	637,710	576,495	61,215	100,934	-
TOTAL	8,513,882	7,357,025	6,574,274	782,752	1,156,857	

Notes:

* These costs are valid only until 31 December 2015.

** These costs are valid only until 30 June 2014.

6. TIER 3 AND MILING LINE GRV SUMMARY

All figures are in September 2013 dollars

Tier 3/Miling Line	GRV(\$) Rail	GRV(\$) Sleepers	GRV(\$) Ballast	GRV(\$) Culverts	GRV(\$) Bridges	GRV(\$) Turnouts
*NG.41 – Toodyay West to Miling	20,850,014	21,225,328	18,164,906	5,778,980	5,903,759	8,093,385
**NG.25 – Narrogin to West Merredin	33,409,275	29,910,982	27,157,463	7,534,650	3,624,994	12,625,681
**NG.26 – Yilliminning to Kulin	14,900,399	13,337,000	11,711,587	2,840,623	136,425	5,827,237
**NG.32 – West Merredin to Kondinin	21,877,591	19,583,606	18,150,008	3,529,180	308,080	9,388,327
**NG.40c – Perenjori to Maya	8,928,675	9,224,202	10,377,411	1,204,898	-	3,156,420
TOTAL	99,965,955	93,281,118	85,561,375	20,888,330	9,973,258	39,091,051

Tier 3/Miling Line	GRV(\$) Earthworks	GRV(\$) Level Crossing Surfaces	GRV(\$) Track laying	GRV(\$) Walkways	GRV(\$) Signage	GRV(\$) Access Roads
*NG.41 – Toodyay West to Miling	55,295,551	613,958	21,941,843	39,998	444,176	1,257,939
**NG.25 – Narrogin to West Merredin	87,686,879	1,339,876	34,795,055	24,094	708,205	2,005,689
**NG.26 – Yilliminning to Kulin	39,064,897	567,651	15,501,353	33,545	309,765	877,278
**NG.32 – West Merredin to Kondinin	57,377,384	628,060	22,767,936	25,252	456,903	1,293,985
**NG.40c – Perenjori to Maya	24,331,154	145,977	12,015,708	18,160	184,455	522,391
TOTAL	263,755,866	3,294,621	107,021,895	141,049	2,103,505	5,957,282

Tier 3/Miling Line	GRV(\$) Fences	GRV(\$) CTC	GRV(\$) TCS/TOS System	GRV(\$) Self Restoring Points	GRV(\$) Asset Protection	GRV(\$) Level Crossing Protection
*NG.41 – Toodyay West to Miling	-	-	55,867	-	-	1,814,640
**NG.25 – Narrogin to West Merredin	-	-	63,334	-	-	2,854,293
**NG.26 – Yilliminning to Kulin	-	-	27,702	-	-	1,088,784
**NG.32 – West Merredin to Kondinin	-	-	40,861	-	-	1,088,784
**NG.40c – Perenjori to Maya	-	-	21,591	-	-	313,797
TOTAL	-	-	209,355	-	-	7,160,297

Tier 3/Miling Line	GRV(\$) Major Comms Sites (share)	GRV(\$) Local Comms Sites	GRV(\$) DCPM Fees	GRV(\$) Finance Cost
*NG.41 – Toodyay West to Miling	170,612	117,992	32,353,790	10,365,754
**NG.25 – Narrogin to West Merredin	240,313	176,988	48,831,554	17,623,658
**NG.26 – Yilliminning to Kulin	105,112	78,661	21,281,604	7,708,499
**NG.32 – West Merredin to Kondinin	155,040	137,657	31,361,731	11,370,028
**NG.40c – Perenjori to Maya	62,591	122,011	14,125,709	4,590,166
TOTAL	733,667	633,310	147,954,387	51,658,105

Notes:

* These costs are valid only until 31 December 2015.

** These costs are valid only until 30 June 2014.

SCHEDULE D

Maximum speeds and lengths

1. MAXIMUM SPEEDS

Maximum Speeds	
Section	Max Speed (km/hr)
ALUMINA Junction – CALCINE	60
ALUMINA Junction – PINJARRA	115
AMERY – BURAKIN	80
AMERY – WYALKATCHEM	80
AVON YARD – GOOMALLING	80
AVON YARD – WEST MERREDIN	110
AVON YARD – YORK	80
BRUNSWICK East – BRUNSWICK JUNCTION	50
BRUNSWICK East – BRUNSWICK North	50
BRUNSWICK East – WORSLEY	50
BRUNSWICK JUNCTION – BRUNSWICK North	50
BRUNSWICK JUNCTION – PICTON Yard West	50
BRUNSWICK North – WAGERUP	80
BUNBURY (ALCOA) – BUNBURY Inner harbour Junction	70
BUNBURY (Passenger) – PICTON Yard East	70
BUNBURY (WORSLEY) – BUNBURY Inner harbour Junction	70
BUNBURY (YARD) – BUNBURY Inner harbour Junction	70
BUNBURY Inner harbour Junction – BUNBURY (SEC)	40
BUNBURY Inner harbour Junction – PICTON Yard East	80
BRUCE ROCK – WEST MERREDIN	50
BURAKIN – BONNIE ROCK	40
BURAKIN – KALANNIE	80
COCKBURN East – KENWICK JUNCTION	80
East COLLIE JUNCTION – EWINGTON JUNCTION	70
East COLLIE JUNCTION – WORSLEY East	70
COCKBURN South – COCKBURN East	80
DONGARA – NARNGULU	80
ESPERANCE – ESPERANCE WHARF PORTMAN ORE	70

Maximum Speeds	
EWINGTON Coal Siding – EWINGTON JUNCTION	30
EWINGTON Coal Siding – PREMIER COAL MINE	30
EWINGTON JUNCTION – PREMIER COAL MINE	30
ESPERANCE – KAMBALDA	70
FORRESTFIELD – KEWDALE	80
FORRESTFIELD - SADLEIRS	80
FORRESTFIELD – WOODBRIDGE South	80
GERALDTON – NARNGULU	60
GOOMALLING – AMERY	80
GOOMALLING – MCLEVIE	50
KALGOORLIE - PARKESTON	110
KALGOORLIE – WEST KALGOORLIE	110
KAMBALDA – REDMINE	90
KAMBALDA – WEST KALGOORLIE	90
KATANNING – TAMBELLUP	80
KENWICK JUNCTION – FORRESTFIELD	80
KONDININ – WEST MERREDIN	50
KOOLYANOBING East – WEST KALGOORLIE	110
KWINANA- COCKBURN South	80
KWINANA CBH – KWINANA	55
LAKE GRACE – HYDEN	80
LAKE GRACE – NEWDEGATE	60
LEONORA – KALGOORLIE	60
MAYA – TILLEY	60
MIDLAND – MILLENDON JUNCTION	80
MILLENDON JUNCTION – MOORA	80
MUNDIJONG – MUNDIJONG JUNCTION	80
MUNDIJONG – PINJARRA	80
MUNDIJONG JUNCTION - KWINANA	80
MILLENDON JUNCTION – TOODYAY WEST	80
MOORA – DONGARA	80
NARNGULU – MULLEWA	80

Maximum Speeds	
PICTON JUNCTION South – PICTON Yard East	70
PICTON JUNCTION South – PICTON Yard West	70
PICTON Yard East - PICTON Yard West	70
PINJARRA – WAGERUP	80
PINJARRA East – PINJARRA South	80
NARROGIN – WAGIN	80
NARROGIN – YILLIMINNING	60
REDMOND – ALBANY	80
SOUNDCEM – COCKBURN South	70
SOUTH MINE – DONGARA	80
TAMBELLUP – REDMOND	80
TILLEY – MULLEWA	80
TOODYAY WEST – AVON YARD	80
TOODYAY WEST – MILING	60
WAGERUP – YALUP BROOK	70
WAGIN – KATANNING	80
WAGIN – LAKE GRACE	80
WEST MERREDIN – KOOLYANOBBING East	110
WOODBIDGE South – MIDLAND	80
WORSLEY – WORSLEY East	70
WORSLEY North – HAMILTON	70
WORSLEY North - WORSLEY	70
WORSLEY North - WORSLEY East	70
WYALKATCHEM -MUKINBLIDIN	60
YILLIMINNING – BRUCE ROCK	40
YILLIMINNING – KULIN	50
YORK – NARROGIN	80

2. **MAXIMUM SPEED, AXLE LOAD AND CONSIST**

	Maximum Speed (km/hr)		Tonne Axle Load (TAL)	Consist
	Empty	Loaded		
Kulin - Yilliminning	50	40	16	2L60W
Toodyay- Bolgart	40	40	16	2L60W
Bolgart- Miling	30	30	16	1L34W
Narrogin - Yilliminning	50	40	16	2L60W
Yilliminning - Wickepin	30	30	16	1L34W
Wickepin - Bruce Rock	30	0	16	1L34W
Bruce Rock- West Merredin	30	30	16	1L34W LOADED 2L60W EMPTY
West Merredin- Narembeen	30	30	16	1L34W LOADED 2L60W EMPTY
Narembeen - Kondinin	30	30	16	1L34W
Maya - Perenjori	30	30	16	2L60W