

Determination on the 2013 Weighted Average Cost of Capital for the Freight and Urban Railway Networks

9 July 2013

Economic Regulation Authority

WESTERN AUSTRALIA

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Determination

1. The Economic Regulation Authority (**Authority**) administers the Western Australian railways access regime. The regime consists of the *Railways (Access) Act 1998* and the *Railways (Access) Code 2000 (Code)*. The rail network and types of infrastructure subject to the regime are defined in this legislation. The Authority's role is to administer the Act and the Code.
2. Schedule 4, Clause 3(1) of the Code requires the Authority to make an annual calculation, as at 30 June, of the Weighted Average Cost of Capital (**WACC**) to be applied in determining the floor and ceiling costs for each of the rail networks covered under Schedule 1 of the Code. The Authority must then publish its determination of the WACC for each rail network in the Government Gazette as soon as practicable after it is made (Schedule 4, Clause 3(1)(b)).
3. The Code also requires the Authority, from 2003, to undertake public consultation every fifth year before determining the WACC values for that year (Schedule 4, Clause 3(2)). Consequently, the Authority was required to undertake a public consultation process prior to making its WACC determination for 30 June 2013.
4. The Authority is currently developing rate of return guidelines for gas transmission and distribution networks pursuant to the National Gas Rules, to be finalised before the end of 2013. The Authority considers there is considerable value in harmonising as much as possible the formulation of a method for calculating the rates of return for entities across the industries it regulates. The Authority considers that there is a significant overlap of issues between the required five-yearly rail consultation process mentioned above and the development of the gas access rate of return guidelines.
5. The Authority has previously adopted a convention that the method for determining, on an annual basis, the WACC to apply to railway networks will generally not vary between determinations made every fifth year in conjunction with public consultation, but rather that the parameters based on observable market variables (i.e. the risk free rate, inflation and the debt risk premium) are updated annually where appropriate.
6. As the rate of return guidelines for gas transmission and distribution networks will not be finalised until after 30 June 2013, the Authority proposed to institute changes to the method for calculating rail WACC values from 30 June 2014 and to determine the WACC values for 30 June 2013 separately. Accordingly, on 7 February 2013, the Authority published an Issues Paper seeking public comment by 15 March 2013 on:
 - an update of the WACC values to apply to regulated railway networks as at 30 June 2013; and
 - a review of the methods for calculating the WACC values to apply from 30 June 2014.
7. This determination is related solely to the update of the WACC values to apply to regulated railway networks as at 30 June 2013. A determination in relation to the methods to be applied from 30 June 2014 will be published at a later date.
8. The Authority received six submissions from interested parties, including two submissions from Brookfield Rail, and submissions from Brockman Mining

Australia, Australian Rail Track Corporation, The Pilbara Infrastructure (TPI) and Flinders Mines. All submissions except from TPI, which has provided a confidential submission, are available on the ERA website.

9. The Authority has determined that the real pre-tax 2013 WACC value to apply over 2013/14 for each railway is as follows:
 - Public Transport Authority: 4.13 per cent
 - Brookfield Rail: 7.00 per cent
 - The Pilbara Infrastructure: 9.76 per cent
10. The Authority calculated the WACC value using the Sharpe Lintner Capital Asset Pricing Model (CAPM) and the Officer WACC methodology, applying parameter values as indicated in Table 1 (below).
11. The WACC values have been calculated on the basis of an estimated nominal risk free rate and debt margin as at 31 May 2013.
12. The Authority has adopted a value for gamma of 0.25 (instead of a value of 0.5 previously used in determinations of the WACC for regulated railways) based on the Australian Competition Tribunal's decision in 2011 of the value of gamma with respect to an application by Energex Limited. This value of gamma has now been adopted in recent regulatory decisions in Australia and by the Authority in its Final Decision on Western Power's access arrangements for the third access arrangement period. There is no new evidence currently before the Authority to use a value different from the Tribunal's decision.
13. The Authority has amended its 'bond-yield' approach for calculating the debt risk premium following comments made in the Australian Competition Tribunal's decision in 2012 on an application by WA Gas Networks. The Tribunal considered that the 'bond-yield' approach could also be weighted by the 'amount issued' in addition to weighting on 'term to maturity'. The Authority has adopted a joint weighted approach based on both criteria which it applied in its recent decision on Western Power's access arrangement.

Table 1: Determination on 2013 WACC values

WACC	Public Transport Authority	Brookfield Rail	The Pilbara Infrastructure
Nominal risk free rate of return (per cent)	3.28	3.28	3.28
Inflation rate (per cent)	2.47	2.47	2.47
Real risk free rate of return (per cent)	0.79	0.79	0.79
Debt proportion (per cent)	35.00	35.00	30.00
Equity proportion (per cent)	65.00	65.00	70.00
Market risk premium (per cent)	6.00	6.00	6.00
Debt beta	0.00	0.00	0.00
Asset beta	0.30	0.65	1.00
Equity beta	0.46	1.00	1.43
Debt risk premium (per cent)	1.260	1.900	2.470
Debt issuance costs (per cent)	0.125	0.125	0.125
Corporate tax rate (per cent)	30.00	30.00	30.00
Franking credit value (gamma)	25.00	25.00	25.00
Nominal pre-tax cost of debt	4.67	5.31	5.88
Real pre-tax cost of debt	2.14	2.77	3.32
Nominal pre-tax cost of equity	7.80	11.98	15.31
Real pre-tax cost of equity	5.20	9.28	12.52
Nominal pre-tax ("Officer") WACC	6.70	9.65	12.48
Real pre-tax ("Officer") WACC	4.13	7.00	9.76
Nominal post-tax ("vanilla") WACC	4.69	6.75	8.74
Real post-tax ("vanilla") WACC	2.16	4.17	6.11

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Reasons

Code Requirements

14. The Authority is required by Schedule 4, Clause 3(1) of the Code to make an annual calculation, as at 30 June, of the WACC to be applied when calculating the floor and ceiling costs for each of the rail networks covered under Schedule 1 of the Code. The Authority must then publish its determination of the WACC for each rail network in the Government Gazette as soon as practicable after it is made (Schedule 4, Clause 3(1)(b)).
15. The Code also requires the Authority, from 2003, to undertake public consultation every fifth year before determining the WACC values for that year (Schedule 4, Clause 3(2)).

Submissions to the Authority

16. On 7 February 2013, The Authority requested interested parties to provide submissions on two separate rail processes regarding the WACC:
 - an update of the WACC values to apply to regulated railway networks as at 30 June 2013; and
 - a review of the methods for calculating the WACC values to apply from 30 June 2014.
17. The Authority received six submissions from interested parties, including two submissions from Brookfield Rail, and submissions from Brockman Mining Australia, Australian Rail Track Corporation, TPI and Flinders Mines. Four of these submissions were received following the close of the consultation period.
18. For the purposes of this decision the Authority has only considered matters raised which are relevant to the update of the WACC values for 30 June 2013. As noted above, the Authority updates the market based variables (i.e. the risk free rate, inflation and the debt risk premium) annually where appropriate. Submissions raised issues with the methodology used to calculate these parameters which is the subject of a separate review to calculating the WACC values to apply from 30 June 2014 and the Authority has decided not to address these issues for the calculation of 2013 WACC values which are based on the existing approved methodology.

Authority's Consideration

19. The Authority notes that it has considered the submissions and in the context of updating the 2013 WACC values to apply to regulated railway networks, it has not considered changes to the methodology unless it is inconsistent with recent decisions of the Australian Competition Tribunal.
20. The reason for this is that the Authority considers there is considerable value in harmonising as much as possible the formulation of a method for calculating the rates of return for regulated entities across these two industries (gas and rail). The Authority considers that there is a significant overlap of issues between the required

five-yearly rail consultation process mentioned above and the development of the gas access rate of return guidelines. The Authority notes that it will consider a change to the methodology for determining the WACC values to apply to regulated rail networks that will be used for the 30 June 2014 determination. In this context, the Authority will further consider the submissions received.

21. The nominal risk-free rate, inflation and debt risk premium, which were updated as at 31 May 2013 are shown in the table below.

Input Variables	2013
Nominal risk free rate (per cent)	3.28
Inflation (per cent)	2.47
Debt Risk Premium (per cent) based on a credit rating of:	
“A” for Public Transport Authority	1.260
“BBB+” for Brookfield Rail	1.900
“BBB-” for The Pilbara Infrastructure	2.470

22. The Authority has adopted a value for gamma of 0.25 (instead of a value of 0.5 previously used in determinations of the WACC for regulated railways) based on the Australian Competition Tribunal’s decision in 2011 of the value of gamma with respect to an application by Energex Limited. This value of gamma has now been adopted in recent regulatory decisions in Australia and by the Authority in its Final Decision on Western Power’s access arrangements for the third access arrangement period. There is no new evidence currently before the Authority to use a value different from the Tribunal’s decision.
23. The Authority has amended its ‘bond-yield’ approach for calculating the debt risk premium following comments made in the Australian Competition Tribunal’s decision in 2012 on an application by WA Gas Networks. The Tribunal considered that the ‘bond-yield’ approach could also be weighted by the ‘amount issued’ in addition to weighting on ‘term to maturity’. The Authority has adopted a joint weighted approach based on both criteria which it applied in its recent decision on Western Power’s access arrangement.