Costing Principles

November 2001

CONTENTS

1. INTRODUCTION

1.1 Background

WestNet Rail Pty Limited ("WestNet"), a wholly owned subsidiary of the Australian Railroad Group Pty Limited ("ARG"), is the manager of the leases of the freight rail infrastructure network in Western Australia, previously operated by the State Government owned Westrail.

The Railways (Access) Code 2000 ("the Code") requires certain parts of the rail network managed by WestNet to be made available for access by third party rail operators. Schedule 1 of the Code lists the sections of the WestNet rail network covered by the Code.

With the appointment of an Acting Rail Access Regulator with effect from 1 September 2001 and the proclamation of the Code, the Code is now effective in all respects. Consequently, WestNet has prepared this statement of Costing Principles in accordance with its obligations under the Code. The Costing Principles should be read in conjunction with the Code, as WestNet has not included detailed cross-references to the relevant sections in the Code in this document.

1.2 Relevance of the Costing Principles

The Costing Principles are a statement of the principles, rules and practices WestNet will apply to determine the costs relevant to a particular access application. The Code allows WestNet to apply market-based pricing to below rail services and as such costs are only one input to pricing decisions. The Costing Principles will be used to develop floor and ceiling prices between which negotiations (and if necessary arbitration) for access will occur.

WestNet is prepared to discuss access with interested parties either within the requirements of the Code or separate to the Code. Therefore access seekers should contact WestNet to discuss their requirements and the terms and conditions of access to the WestNet Network.

1.3 Origin and Destination and Route Sections

WestNet will calculate the relevant floor and ceiling prices where required for access seekers based on the origin and destination of the product or group of products on its Network, together with any other available railway infrastructure to support the access application. Access seekers are encouraged to review Schedule 1 of the Code which defines the railway infrastructure which is available for access under the Code.

The route sections are based on how WestNet has divided the Network for its costing purposes as provided by the Code. The distances for route sections vary in general with differences in track characteristics and traffic densities. One or more route sections will be combined to provide the total costs as defined by the Code from origin to destination of the product and any related railway infrastructure required by the access seeker dealt with by Schedule 1.

1.4 Structure of this Document

This statement of Costing Principles is four further sections:

- Section 2 – Determination of capital costs
- Section 3 – Determination of operating costs
- Section 4 – Determination of overhead costs
- Section 5 – Other relevant issues

2. DETERMINATION OF CAPITAL COSTS

2.1 Introduction

The ceiling price, and in certain circumstances the floor price, will include a capital charge which is intended to reflect the cost to WestNet of establishing and replacing infrastructure capacity. The Code sets out the basis for determining the capital charge based on an annuity formula, calculated having regard to the gross replacement cost of the infrastructure, its economic life and an allowable rate of return.

There are five key issues which underpin the determination of the appropriate capital charge:

- The infrastructure to be included in the calculations;
- Its gross replacement value;
- Its relevant economic life;
- The allowable return; and
- The annuity calculation.

Each of the issues is discussed below.

2.2 What infrastructure is included

The assets included in the capital calculations includes only the assets directly engaged in providing the rail infrastructure services, e.g.:

- Rail
- Sleepers
- Ballast
- Structures
- Formation
- Signalling and communications.

Assets which support operating functions will be included in the operating cost or overhead cost calculations as appropriate.

WestNet has reviewed the existing Network infrastructure and determined that it meets the current and reasonably projected demand for all users taken together[1]. The required infrastructure includes the extension of eight crossing loops recently completed on the Kwinana to Kalgoorlie line which has enhanced the capacity at peak times for traffic using this line.

[1] WestNet is seeking further details from an access seeker with respect to train services which may exceed the current capacity of the railway infrastructure for a specific part of the Network. WestNet is currently unable to determine the additional infrastructure (if any) which may be required and accordingly has not adjusted the Network configuration.

2.3 Gross Replacement Value

Modern Equivalent Assets
Replacement values are to be assessed on the basis of Modern Equivalent Assets ("MEA"). WestNet considers that the majority of the existing track configuration (that is sleeper type, rail weights etc) can be adopted as the MEA. It is assumed, however, that this track configuration is new in accordance with the Code.

Essentially, sections of the Network have over the last 15 years been significantly upgraded or completely replaced. For other sections, the track infrastructure, which exists currently, is the modern equivalent asset as there has been no major technological advances that would change the selection of the major track components given the operating requirements of the Network. The Costing Principles therefore adopt the actual infrastructure configuration which comprises the Network (for example, the number of protected level crossings in a route section). Again, it is assumed that the infrastructure is new.

The exception to this analysis for track infrastructure relates to the line between Kwinana and Kalgoorlie where there will be approximately 75 kilometres of track with timber sleepers after the completion of the current capital works. The MEA for this 75 kilometre section would be new concrete sleepers and accordingly this has been adopted.

In relation to signalling and communication infrastructure, WestNet is in the process of upgrading the communications system using a fibre optic cable and processor based interlocking. This is considered to be the modern equivalent asset and has been adopted by WestNet for the sections where this infrastructure is required to provide the appropriate level of service.

Unit Rates
WestNet has an on-going capital program to enhance the track and signalling infrastructure. Accordingly, it regularly tests the market for the cost of materials and construction, project management fees and related items. WestNet has applied this information to determine the unit rates to calculate the capital cost of railway infrastructure as required by the Code.

Design, construction and project management fees
WestNet has reviewed market based fees for the design, construction and project management of major projects. It has determined that these fees are charged on a percentage of project cost and have been applied based on contractor's overhead of 12.5 %, engineering and design of 16.5% and a profit and risk margin for the contractor of 5%.

Financing charge during railway infrastructure construction
The Code requires that the Gross Replacement Value for railway infrastructure be applied as part of the calculation of the capital charge. Consistent with this approach is that WestNet will include in the capital cost an allowance for its cost of capital and related financing fees and charges during the construction period.

It is assumed that the railway infrastructure can be constructed at a rate of half a kilometre per day on the basis of the origin and destination. This construction rate per day includes design and approval periods when significant engineering planning and thus related fees is required. The construction cashflows are assumed to be evenly distributed over the construction period with the cashflows assumed to be monthly.

WestNet has applied a pre tax real weighted average cost of capital of 11% per annum to the construction cashflows to reflect the financing charge. This is based on WestNet's assessment of its WACC. Upon completion of construction, the interest calculation ceases.

2.4 Economic Life

WestNet has evaluated the economic lives of its infrastructure based on the application of modern equivalent assets with new components and key determinates of asset life such as environmental factors, which will have an impact to extend or reduce the life of the asset.

Whilst this will be discussed in the section relating to maintenance in Section 3.4, the maintenance regime has been set to allow the asset to reach its economic life. It has been assumed that the asset is life expired at the end of that period, has no economic (salvage) value and there are no costs to reclaim or dispose of the life expired assets.

The economic lives of the assets adopted by WestNet are set out in Section 7.1.

2.5 Allowable return

The Regulator has determined that the current allowable return (or WACC) for WestNet is 8.2% pre-tax real. In accordance with the Code, the Regulator will review the WACC at 30 June each year.

2.6 The annuity calculation

WestNet has adopted the methodology (applying the PMT formula) used in a Microsoft Excel spreadsheet to calculate the annuity required. It has assumed that the annual payments are made at the end of the period. As payments must be calculated annually under the Code, this most closely represents the cash flows received from access customers. It is commercially very unlikely that users will make access payments in advance. There is assumed to be no salvage value and no costs of remediation at the end of the assets useful life.

3. DETERMINATION OF OPERATING COSTS

3.1 Introduction

WestNet has prepared its operating costs based on the railway infrastructure being replaced with modern equivalent assets which are new and applying efficient practices.

WestNet has outsourced its track maintenance function and tests the market to ensure rates are competitive. WestNet conducts its signalling and communications costs inhouse due to the immaturity of the market at present to respond to WestNet's specific and demanding customer driven specifications and requirements. WestNet continues to review the market for the provision of these services, however, its market testing to date indicates that retaining this function inhouse is the most cost effective option at present.

The maintenance regime has been structured to allow the asset to function during its economic life, however, upon expiry it has no value and requires complete replacement. Therefore, the annuity calculation does not apply a salvage value at the end of an asset's useful life, nor any cost of disposal and site remediation.

The maintenance regime recognises that costs will be impacted by certain traffic related matters and any specific factors which would impact on economic life such as tight radius curves for rail.

3.2 Definition of Operating Costs

WestNet has calculated the costs of maintenance by assessing the characteristics which will drive the operating costs by individual route section which forms part of the origin and destination of the access proponent. This results in a charge per kilometre per annum for operating costs per route section. One or more route sections are then combined to give the relevant operating cost for the access application as required by the Code.

The costs of track maintenance are identified as those relating to track inspections by WestNet staff and the outsourced infrastructure contracts, which are charged to WestNet based on hourly rates. Signalling and communications costs are WestNet's direct costs. Maintenance costs also include incidents including derailments and natural events such as fire and floods that are not recoverable from operators.

3.3 Allocation of Operating Costs

In relation to the costs of managing the outsourced maintenance contracts by WestNet to ensure appropriate safety and operational outcomes are met, these costs have been included in overheads and allocated as discussed in Section 4.2.

WestNet has allocated the costs of managing train control, train scheduling, emergency management and information reporting as overheads. This is because WestNet has an efficient cost base where management will undertake a number of functions during a given time period.

To ensure it has efficient costs, management is also structured to provide coverage for individual functions on a short term basis for annual, sick leave, staff training and development and related matters.

In addition, individual timesheets are not kept (as this would be inefficient and increase costs) and thus, devising cost allocation rules which are transparent and simple, is not feasible in these circumstances. Accordingly, WestNet has implemented allocation rules for overheads which result in a strong correlation between the allocation proxy and the cause of the cost. The allocation rules apply GTK or train movement variable and are discussed further in Section 4.2.

3.4 Cyclical maintenance costs

As noted in Section 2.4, WestNet has assessed the maintenance costs required to be incurred which relate directly to the relevant categories of railway infrastructure over the economic life of that category of asset. The maintenance costs reflect the MEA of new assets and Gross Replacement Value costs discussed in Section 2. These amounts have been divided by the individual economic lives to determine an annual maintenance cost which reflects the cost evenly spread over the maintenance cycle. Unit rates based on WestNet's outsourced maintenance contracts and WestNet's inhouse signalling and communications costs have been applied.

Maintenance costs have been assessed by route section. Factors that influence the maintenance regime include the traffic density and specific circumstances relating to the relevant section of infrastructure such as tight radius curves. Replacement of rail on tight radius curves has been included as a maintenance item as the rail in these sections of track will be life expired on average within ten years.

4. OVERHEAD COST

4.1 Definition of Overhead Cost

The overheads included are all the necessary overheads to conduct WestNet's business. The overheads set out below are the key areas only and are in addition to those included in Section 3.3.

i. management accounting and financial accounting staff costs and audit and taxation fees and information technology costs
ii. safety and accreditation fees
iii. legal fees and other statutory costs such as ASIC lodgement fees
iv. training and development costs for management and staff and human resource functions
v. building occupancy costs including office equipment
vi. communication costs such as telephone, facsimile, data transmission
vii. motor vehicle, travel and accommodation costs
viii. financial costs including bank fees and charges (excluding interest)
ix. Insurance and risk management costs.
x. Office stationery and consumables and sundry items

WestNet is a separate legal entity and has an efficient overhead structure which relates to its business of access provision. It should be noted that WestNet has no other function than the provision of access. Accordingly, WestNet has included all of its overhead costs.

WestNet's parent company, the Australian Railroad Group Pty Limited ("ARG"), provides certain corporate overhead functions which relate to the performance by WestNet of its access related functions. In accordance with the Code, WestNet has included ARG's access related functions in the calculation of its overheads.

These ARG functions relate primarily to accounting and financial support, accreditation and safety related issues and human resource matters such as payroll. ARG also has principal conduct for the provision of information technology services. An analysis of ARG's overheads has been conducted and overheads have been allocated based on the usage by WestNet as a proportion of all other users in the ARG group.

4.2 Allocation of Overhead Cost

As noted in Section 3.2 management functions (as compared to direct operating functions) relating to train control, train scheduling, signalling and communications, emergency management costs and the cost of information reporting have been included in the calculation of overheads. This is primarily due to the inability to allocate efficiently and effectively specific management time and costs to this group of functions. Further, devising and implementing an appropriately transparent and simple methodology which is also cost effective is impractical.

WestNet has considered the correlation between the allocation proxy and the causality of the cost for categories of overheads. An allocation table is included in 7.2. In general terms, train movements have been linked to train control and related support and management functions and the management of maintenance related functions have been linked to Gross Tonne Kilometres. WestNet is of the view that this will provide the most appropriate allocations between users which are predominantly rail freight customers.

Section 33 of the Railways (Access) Act 1998 ("Act") requires that relevant officers must not have regard to the interests of the railway owner which is unfair to access seekers. WestNet confirms that the allocation of overhead cost is in accordance with Section 33 of the Act.

5. OTHER MATTERS

5.1 Ceiling variation

When the Regulatory Ceiling has been determined, WestNet will adopt an approach to subsequently vary the ceiling based on the movement in CPI on an annual basis at the end of each year. This variation will be applied for three years after which the Regulatory Ceiling will be recalculated. The recalculated Regulatory Ceiling will then be varied for the following three year period in accordance with the above and then recalculated thus the cycle will repeat.

Whilst there has been much debate in relation to the rate variation method to be adopted in relation to rail access regimes, WestNet will apply the annual movement in the Consumer Price Index as the basis for cost variation. This provides over time the most appropriate measure in the movement of cost. As noted above, the total cost will be reset every three years based on the actual unit costs at that time.

The three year period will also allow an appropriate review of the actual and reasonably projected demand as it impacts on the Gross Replacement Value in considering capacity.

A three year period will also create an appropriate link to the Overpayment Rules as approved or determined by the Regulator from time to time.

5.2 Calculation of Regulatory Ceiling

Section 1 of Schedule 4 of the Code includes a definition of the total costs to be included in the calculation of the Regulatory Ceiling. Total costs are defined as the total of all operating costs, capital costs and the overheads attributable to the performance of WestNet's access related functions whether by WestNet or an associate.

WestNet will adopt one Regulatory Ceiling. This approach recognises that it is WestNet's view the binding test on the Regulatory Ceiling will be the total revenue of all users compared to the infrastructure to support that traffic.

5.3 Calculation of Regulatory Floor

WestNet will adopt one Regulatory Floor. It is considered the calculation of the Floor is dependent upon a number of specific circumstances which will vary based on each access application. WestNet will apply the following factors to calculate the Regulatory Floor:

i. the percentage that the incremental traffic represents of the total traffic
ii. the existing overall level of traffic (that is, high or low density traffic use)
iii. the requirements of the service (eg high speed passenger versus low speed freight)
iv. the nature of the infrastructure (which will influence the operating costs) and the specific requirements of the user
v. the nature of the train operations and its impact on overhead costs.

These factors will influence the derivation of the incremental costs to be avoided and issuing a set of rules which deals with these and other factors either individually or in combination is impractical. Each application will be based on its individual circumstances and will set out the factors that WestNet determines are relevant in calculating the Regulatory Floor. If factors other than (i) to (v) are considered relevant by WestNet it will apply to the Regulator to have these additional factors included.

6. REVIEW AND CONSULTATION

WestNet will formally consult with the Regulator at the end of the initial two years of operation of the Costing Principles to determine whether any amendments are required.

7. ANNEXURES

7.1 Economic life table

		Economic Life			
Earthworks for Track	km	100			
Bridges, Tunnels & Culverts					
Bridges (not footbridges)	km	100			
Culverts	km	50			
Level Xings	km	20			
Access Roads	km	10			
Fencing of Track	km	15			
Track Materials		Concrete	1:2 steel	1:4 steel	Timber
Rail		50	50	50	50
Sleepers		50	30	25	20
Ballast		25	25	25	25
Jewellery		25	25	25	25
Turnouts		20	20	20	20
Track Construction	km	50	50	50	50
Roads & Shunter's Pathways	km	10			
Signalling					
Track	km	20			
Flashlights	km	20			
Boomgates	km	20			
Communications	km	20			
Miscellaneous					
Track Signs	km	10			
Contractors Margin & Contibution to Overheads		50			
Engineering & Contract Management		50			
Interest on construction		50			

7.2 Overhead allocation table

Item		
1	Customer Service	Allocated by train movements
2	Access Manager, GM & Safeworking Inspectors	Allocated by train movements
3	Planning Operations	Allocated by train movements
4	Train Control Merredin	Allocated by train movements
5	Train Control Northam	Allocated by train movements
6	Train Control - Picton	Allocated by train movements
7	Train Control Westrail Centre	Allocated by train movements
8	C&CS Head Office	Excluded from allocation. Included in Signal maintenance cost in valuation model
9	Systems Maint Superintendent	Excluded from allocation. Included in Signal maintenance cost in valuation model
10	RSS East Merredin	Excluded from allocation. Included in Signal maintenance cost in valuation model
11	RSS South Picton	Excluded from allocation. Included in Signal maintenance cost in valuation model
12	RSS West Midland	Excluded from allocation. Included in Signal maintenance cost in valuation model
13	TOS Communications	Excluded from allocation. Included in Signal maintenance cost in valuation model
14	NG - South West	Allocated by GTK's
15	NG - Narngulu	Allocated by GTK's
16	NG - Central	Allocated by GTK's
17	Structures Picton	Allocated by GTK's
18	Per Way South West	Allocated by GTK's
19	Regional Manger NG	Allocated by GTK's
20	Regional Manger SG	Allocated by GTK's
21	Admin Perway West SG	Allocated by GTK's
22	Admin Structures West SG	Allocated by GTK's
23	Admin Perway East SG	Allocated by GTK's
24	Admin Structures East SG	Allocated by GTK's
25	Commercial	Allocated by train movements
26	Property	Allocated by train movements
27	Projects	Allocated by train movements
28	Corporate Overheads	Allocated by train movements

7.2.1 Notes

The allocation rules are driven either by train movements or are GTK related. Where a cost centre can be specifically allocated to an area, its costs will be allocated to the access seekers which relate to that specific area. For example, where a train control cost centre is dedicated to only the control of standard gauge trains, the costs will be allocated only to standard gauge traffic.