Supplementary Information for Clause 9 Determination

Infrastructure Maintenance Model

The Infrastructure Maintenance model assumes a new asset with maintenance frequency set at such levels to achieve the economic lives of the asset. Maintenance activities typically included are :-

- Inspections
- Routine maintenance
- Cyclic maintenance

Inspection include patrolling; on-train inspection; track geometry car and structures inspections.

Routine maintenance includes broken sleeper replacement; ballast top up following tamping; mechanical corrective surfacing; recant curves; turnout maintenance; track corrections following inspections and ultrasonic testing. Cyclic activities includes firebreaks; scrub slashing; drainage; access roads; weedspraying and rail grinding.

Contract rates for a selection of activities nominated are as follows:-

Grinding cost (pass per Km)	\$415
Ballast (rate per tonne)	\$15
Track Geometry Car (per Km)	\$15
Mechanical corrective tamp and regulate (hr)	\$403
Grading of firebreaks (Km)	\$22
Weedspraying (Km)	\$183
Periodical resurface rate (Km)	\$1778
Scrub slashing (Km)	\$55
Ultrasonic testing (Km)	\$69
Drainage clearing (Km)	\$82
Access road (Km)	\$95
Rail defect removal cost (per weld)	\$3075
Dipped weld rectification cost (per weld)	\$100

Overhead Allocation

ARG costs included in overheads was included on the following basis:-

Group Overheads	Estimate of WestNet's share and is 31% of total.
Information technology	Based on WestNet's share of total ARG terminals and includes dedicated WestNet hardware.
Human Resources	Allocated on WestNet's share of total staff count in ARG.
Accounting and Audit	Based on transaction and survey and is 42% of ARG total

Compliance, Environment and safety Allocated on time spent associated with each business group captured through a staff survey.

Calculation of the floor

The floor price is calculated on the basis of costs avoided if the client does not have access to the track. These costs are the avoided volume related costs, and are calculated within the framework of the Westnet costing model. There are two major categories of volume related track costs, these are maintenance costs and the cost of rail and turnout capital.

As set out in the costing principles, rail and turnout lives are assumed to be based on traffic volume, and the extent to which additional traffic reduces rail life can be measured as the difference in annualized capital costs associated with different traffic volumes. These costs are only likely to be significant when an operator has a large enough volume of traffic to affect rail or turnout life.

Maintenance costs that increase with additional rail task include such things as rail grinding, ultrasonic testing, and maintenance of turnout bearers. The WestNet maintenance model dictates the frequency with which such periodic maintenance activities should occur, and the extra cost associated with servicing additional traffic is the annualized cost associated with bringing forward such maintenance activities.

Many of the maintenance activities carried out by a track operator in accordance with the maintenance model are independent of traffic volume, and would be incurred for one train or many. These include routine inspections, weed spraying, and maintenance of firebreaks and drains. These costs are treated as fixed in the short term, and therefore are not included in the floor calculation.

There are some track operation activities that are independent of traffic volume (they are incurred whether there is one train or many) but could be avoided over a 12 month period if there were no traffic on the line at all. These costs are the costs associated with track inspections, and the costs of network management. When calculating the floor for a particular line segment for the purposes of working out an absolute floor (the cost associated with avoiding traffic over 12 months), these costs are also included in the floor price. In calculating the network management costs that are avoided by closing down the line for 12 months, costs allocated for network management based on current traffic volume, is used.

In summary, the costs avoided when there is no traffic on the line are:

- 1. Avoided volume driven track and maintenance costs
- 2.Inspection costs
- 3.Network management costs

Whereas when there is some traffic on the line and the floor is calculated on the basis of costs avoided if a particular client was not serviced, the costs avoided are:

Avoided volume driven track and maintenance costs only

A demonstration of costs avoided as traffic volume of a line varies is given in Figure 1, which is based on calculations for the Forrestfield – Kalgoorlie line. The white bar shows the volume related track costs, which increases as the total volume of traffic avoided increases. In addition, when all traffic is avoided, the costs associated with network management and inspections is an additional cost saving. The sum of these costs, estimated at 100% of traffic avoided, will be used in declaring a floor for a line as a whole. For individual clients, the quoted floor price will be the volume related cost only, unless the customer has 100% of traffic on the line.



Figure 1: Demonstration of floor cost calculation for Forrestfield to Kalgoorlie Line.