Costing Principles

The Pilbara Infrastructure Pty Ltd

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DRAFT COSTING PRINCIPLES

1 Introduction

The purpose of the Railways (Access) Act 1998 ("the Act") and the Railways (Access) Code 2000 ("the Code") is to establish a rail access regime that encourages the efficient use of, and investment in, railway facilities by facilitating a contestable market for rail operations.

The Pilbara Infrastructure Pty Ltd (TPI) owns and operates a rail network and port terminal in the Pilbara region in Western Australia. TPI also provides above-rail services on this network. TPI is a wholly owned subsidiary of Fortescue Metals Group (FMG). TPI is responsible for providing access to the rail network.

The WA Rail Access Regime administered by the Economic Regulation Authority (ERA) will apply to the below rail operations of TPI. The rail access regime is set out in the Act and the Code and the terms defined in the Act and the Code are adopted for the purposes of these Costing Principles. In accordance with section 46 of the Code, TPI, as railway owner, must prepare and submit Costing Principles to the ERA for approval.

These Costing Principles are:

- a statement of principles, rules and practices to be applied by TPI in the determination of floor and ceiling costs; and
- to define the manner in which TPI's accounts and financial records must be kept and presented so far as they relate to the determination of floor and ceiling costs.

The Over-payment Rules determined by the ERA under Part 5, Section 47 of the Code are linked to the Costing Principles in so far as application of the ceiling price test defined in Clause 8 of Schedule 4 of the Code is concerned. The Over-payment Rules, as determined, set out the methodology in dealing with overpayments where breaches of the ceiling price test have occurred.

The structure of this document is as follows:

- Section 2 – Timing and route sections
- Section 3 - Determination of capital costs;
- Section 4 – Determination of operating costs;

- Section 5 – Overhead costs;
- Section 6 – Other matters.

2 Timing and route sections

TPI will develop and provide to the ERA its Costing Model within 18 months of the approval of these Costing Principles. This will allow the Costing Model to be developed with the benefit of at least 18 months' actual experience of the level of costs that will be incurred in the provision of access related services. The Costing Model will be prepared in accordance with the approved Costing Principles.

The Code refers to specific "routes" and defines a "route section" as a section of the railway network that has been divided for management and costing purposes. TPI will calculate floor and ceiling costs at the route section level, which will then aggregate to provide a total floor and ceiling for the "route" nominated by the access seeker. The route section for key parts of the network, which will be used in the application of these Costing Principles, is included as Attachment C. TPI will reassess route sections as the railway infrastructure is expanded and extended.

3 Determination of capital costs

Ceiling and, in some instance, floor costs, will include a capital charge intended to reflect the cost of establishing and replacing infrastructure capacity over time. The definition of capital costs in the Code is the basis for establishing this charge. That is, it is an annuity calculated having regard to the GRV of the infrastructure, the WACC and economic life.

Floor costs will need to include a capital charge where it is necessary to undertake capital expenditure to provide access to an access seeker (see economic life below and section 6).

The elements to be determined in arriving at a determination of capital costs are discussed further below.

3.1 Infrastructure included

The Costing Principles apply to all of the railway infrastructure owned by TPI that is covered by the WA Rail Access regime or is otherwise required to provide access under the TPI Railway and Port Agreement (covered infrastructure), including:

- railway track, associated track structures, over and under track structures, supports (including supports for equipment or items associated with the use of a railway);
- tunnels and bridges;
- train control systems, signalling systems and communications systems;
- associated plant, machinery and equipment.

The Code specifies that land is not included in initial capital calculations. However, , the costs associated with leasing any part of the land upon which covered infrastructure is constructed or is otherwise required to provide the requested access may be included for the purposes of assessing the ceiling cost. In addition, all expenditure on cuttings and embankments will be included in the assessment of the ceiling cost since such costs were incurred after the commencement of the regime.

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.

3.1.1 Gross replacement values

TPI will complete a valuation in accordance with the GRV methodology. To arrive at this value, assumptions will need to be made regarding:

- *capacity of infrastructure* – TPI considers that the network as constructed can meet current and reasonably projected demand. As a greenfields development, TPI does not consider that any optimisation should occur on its network. If TPI seeks to include the costs of additional infrastructure to meet projected demand it will demonstrate:
  - the basis of the demand projection; and
  - a commitment to the capital expenditure.
- *route optimisation* – as a greenfields development, TPI will assume that the optimised network is provided by the rail track within the existing corridor of the land and, hence, route alignment and infrastructure configuration is optimal and efficient.
- *contributed assets* – there are at present no contributed assets on TPI's network. However, in future, it is possible that individual mines may contribute capital

towards the construction of the network. In this case, such contributed capital will will be included in the cost base for the purpose of calculating the GRV and the route section ceiling. The value of the contributed capital will be reflected as an equivalent annuity payment which is included in the revenue earned on the asset for the purpose of the ceiling price test. The cost of operating and maintaining contributed assets will also be included in the calculation of ceiling costs.

- *'Greenfields'* – the valuation will reflect any costs associated with re-locating infrastructure that were actually incurred by TPI in constructing the covered infrastructure, indexed to current values.

- *Modern equivalent assets (MEA)* – replacement values must reflect the MEA value and current market tested unit rates for materials. As a greenfields development, this will reflect indexed actual costs.

- *Unit Rates* – the unit rates relied upon for the asset valuation will be derived from TPI's actual experience in rail infrastructure construction costs, indexed to current values.

- *Design, construction and project management fees* – TPI will use actual design, construction and management fees, indexed to current values.

- *Financing charge during construction* – consistent with the Code requirement that the GRV be applied as part of the calculation of the capital charge, TPI will include in the capital cost an allowance for its cost of capital and related financing fees and charges during the construction period. The WACC determined by the ERA will be applied to the construction cash flows to calculate the financing charge. Reliance may be able to be placed on the actual historical cash flows experienced as part of the construction process.

- *Equity raising costs* – the GRV will include an estimate of the cost of raising equity capital. This will be calculated as an increment to the GRV based on the notional level of equity contained in the gearing assumption for the weighted average cost of capital calculation. The estimate will include all direct costs associated with raising equity finance, including the underwriter's commission and all other costs incurred by the issuer that are not part of the compensation to underwriters. These costs include filing fees, legal and accounting fees, and taxes.

The index to be applied to convert the costs that TPI actually incurred will be the Perth Building Index adjusted for the average of the Port Hedland and Tom Price regional indices as published in the Rawlinsons Australian Construction Handbook.

For the purposes of calculating ceiling costs, the value of the assets will be increased by the GRV of each additional investment in covered infrastructure made by TPI. Where TPI undertakes any expansion of capacity of the covered infrastructure or extension to the covered infrastructure, the GRV will be taken to be the sum of the undepreciated value of the GRV of the covered infrastructure and the GRV of each individual expansion to or extension of the covered infrastructure.

3.1.2 Economic life

The assets lives assumed by TPI are based on economic life of the covered infrastructure (being the shorter of the economic life of the mines served by the railway infrastructure and the technical life of the railway infrastructure), or estimated lives of individual assets based on MEA.

In calculating a ceiling (and if appropriate a floor) cost, the economic life assumption underpinning the annuity payment calculation for these types of capital costs will be based on the economic life of assets listed in Attachment A unless a shorter life is adopted due to the assets servicing a time limited project. In assessing the life of a project serviced by the assets, TPI may have regard to the term of contractual arrangements that are entered into by the parties. The ERA will be advised as to the reasons for any shorter life assumption.

3.1.3 Rate of return

In accordance with the Code, the WACC as applied to TPI will be determined by the ERA and reviewed (by the ERA) each year at 30 June as applied to TPI. The WACC will include an allowance in the cost of debt for the costs of raising debt, including fees charged by an investment or commercial bank, legal and accounting fees. In addition, an allowance for asymmetric risk will be estimated for inclusion as an increment to the WACC. In the event that the ERA does not allow an adjustment to the WACC to account for asymmetric risk, the fair value of the impact of asymmetric risk be included in the operating costs for the purposes of calculating floor and ceiling costs.

3.1.4 Annuity

The annuity calculation provides a return on capital and also implicitly provides for depreciation of the asset. TPI will adopt a methodology that is acceptable to the ERA.

4 Determination of operating costs

As the Code requires only efficient costs to be considered in the floor and ceiling tests, TPI will prepare operating costs based on the efficient cost of maintaining the MEA network. Factors TPI will consider include: the efficient cost test; definition of operating costs; and allocation of operating costs.

4.1 Definition of operating costs

TPI adopts the definition of operating costs contained in the Code. For the removal of doubt, operating costs will comprise all of the operating costs that would be incurred by an efficient stand alone operator in providing access to TPI's railway infrastructure, including:

- major periodic maintenance (MPM) has been included where MPM is necessary to be incurred to achieve the economic life of the assets;
- the costs associated with leasing any part of the land upon which covered infrastructure is constructed or is otherwise required to provide the requested access;
- an allowance for the fair value of the impact of asymmetric risk where a corresponding increment is not provided to the WACC on account of asymmetric risk.

Operating costs will therefore include:

- routine, cyclical and major planned maintenance costs for track;
- routine, cyclical and major planned maintenance costs for signalling and communications;
- network management costs;
- working capital;
- any rental payments or other costs associated with the corridor for the railway infrastructure; and
- if not recovered in the WACC, an allowance for the fair value of the impact of asymmetric risk.

4.2 Efficient cost tests

TPI will seek to demonstrate to the ERA that its actual costs and cost forecasts reasonably reflect efficient costs and therefore provide an appropriate basis for determining floor and ceiling costs. This may be done in a number of ways, depending on the particular cost category:

- benchmarking of costs where comparable and current data is available having regard to the market conditions that are presently being experienced in the Pilbara region;
- where maintenance programs are based on accepted industry standards which describe scope and frequency, this will be considered efficient;
- actual costs may be used where:
  - they result from a competitive tender process. A robust tendering process will provide the regulator with some comfort that the resulting price reflects an efficient market price;
  - they are regulatory costs over which TPI has no control (such as the cost of rail safety accreditation); and
  - particular costs are deemed efficient as a result of benchmarking (eg. salaries).

In measuring efficiency, TPI recognises that these costs change over time especially as a result of innovation and technological change. However, TPI will develop its efficient cost estimates on the basis that its network is constructed to a standard that is equivalent to a MEA.

4.3 Allocation of operating costs

The allocation of specific operating costs, including track and signalling maintenance costs, centralised train control costs and non-sector specific operating costs to route sections will be performed in accordance with the allocators listed in Attachment B. TPI will refine cost allocators as its experience with the actual costs of providing access increases.

5 Overhead costs

5.1 Definition of Overhead costs

TPI's overheads are those overhead costs attributable to the performance of TPI's access-related functions whether by TPI or FMG.

TPI is a separate legal entity and has an efficient overhead structure which relates to its business of access provision. TPI also sources corporate and related functions from FMG.

The cost of any activity which would be incurred by an efficient stand alone operator in providing access to TPI's railway infrastructure but is not considered by the ERA to be classed as an operating cost will be included as an overhead cost.

5.2 Allocation of Overhead costs

The basis for the allocation of TPI's overhead costs to route sections is set out in Attachment 2.

6 Other matters

6.1 Indexation of floor and ceiling

The capital cost component of floor and ceiling costs will be indexed based on CPI.

In determining CPI, the Australian Bureau of Statistics Weighted Average of Eight Capital Cities All Groups CPI index will be used. The annual change in CPI is calculated as the percentage change in the average of the four quarters to March of each year from the average of the previous four quarters.

TPI will develop an index to be applied for operating costs that reflects the underlying regional cost drivers confronting TPI. Before developing this index, TPI seeks to gain an understanding of the changes in its costs over time. TPI will consult with the ERA before submitting its proposed index to the ERA for its consideration.

TPI will submit the annual indexed floor and ceiling costs for determined routes or route sections to the ERA for review and approval.

6.2 Calculation of floor and ceiling

Calculation of floor and ceiling costs will be consistent with the provisions in Schedule 4 of the Code.

Calculation of ceiling

There will be one regulatory ceiling for all access seekers on a route section, calculated based on the sum of capital costs, operating costs and overhead costs.

TPI will demonstrate to the ERA that these costs are efficient.

Calculation of floor

The calculation of the floor price is dependent on a range of factors will which vary for each access application. That is, each operator can have a different floor and the sum of all operators' floors on a route section will not be less than the floor for that route section.

Floor costs will need to include a capital charge where it is necessary to undertake capital expenditure to provide access to an access seeker (either because of the need to expand capacity or because of the characteristics of the service requested). In such cases, the floor costs will include the cost of any capital investment required calculated on the same basis as the ceiling costs (adjusted, as appropriate for a shorter life in the case of assets servicing a time limited project.

Capital costs should only be included in the floor when it can be shown that meeting the operator's requirements will require additional capital investment to increase capacity.

While each application will have specific circumstances, TPI considers that the following factors will be relevant in determining the floor:

- the percentage that the incremental traffic represents of the total traffic;
- the existing overall level of traffic (that is, high or low density traffic use);
- the nature of the infrastructure (which will influence the operating costs) and impact of the specific requirements of the user and its associated service (priority, capacity consumption, maximum speed, axle load) on the railway infrastructure; and
- the nature of the train operations and its impact on overhead costs.

If in future factors other than those outlined above are considered relevant by TPI, it will apply to the ERA to have these additional factors included.

7 Review and consultation

The Code provides that the ERA will approve the Costing Principles. Further, the Code provides that the Costing Principles may be amended or replaced by the railway owner with the approval of the ERA. The ERA may also direct the railway owner to amend the Costing Principles or to replace them with principles determined by the ERA.

TPI makes the following commitments in relation to these Costing Principles:

- TPI's compliance will be:
  - subject to an annual independent external audit;
  - the ERA may select and manage the auditor and will approve the scope of the audit, with TPI paying costs.
- TPI recognises that the final audit report is to be made available to the ERA and access proponents;
- without limiting TPI's opportunity to submit revisions to the Costing Principles, TPI will review the Costing Principles within two years after the ERA's approval of this document. One of the purposes of the review will be to assess the appropriateness of the Costing Principles following FMG's actual experience with the operation of the railway infrastructure. The ERA will consider any revised Costing Principles following submission by FMG of a proposed change and the reasons for the proposed change.

A Economic life of assets

			Life Expectancy (Years)
1		Earthworks for track	50
2		Bridges, tunnels and culverts	
	a	Bridges (not footbridges)	50
	b	Culverts	50
3		Level crossings	20
		Access roads	10
4		Fencing of track	15
5		Track materials	
	a	Rail life	>20MGT
		Curve < 400m	6
		Curve 400-800m	10
		Curve > 800m & tangent	20
	b	Turnouts	>20MGT
		Bearers concrete	30
		Blades and stock rails	4
		Rail bound crossing	10
		Balance of turnout	20
	c	Sleepers	50
	d	Ballast	25
	e	Jewellery	25
6		Track construction	50
7		Roads and shunter's pathway	10
8		Signalling	
	a	Track construction	20
	b	Flashlights	20
	c	Boomgates	20
9		Communications	20
10		Maintenance	
	a	Track signs	10
11		Contractors margin and overheads	50
12		Engineering and contract management	50
13		Interest on construction	50

B Allocation of operating costs and overheads

Cost Component	Description	Cost allocator
Below Rail Assets		
Line Section Specific assets		
- Corridor Land	Right of way	Directly attributable
- Track and Civil works	Earthworks, bridges, culverts, rail, ballast and sleepers.	Directly attributable
- Signals – Trackside equip	Include electrical signal interlocking and level crossing protection, etc.	Directly attributable
System Wide Assets		
- Non-corridor Land	Chiefly surplus land or other land kept for expansion	Train Km
- Buildings		Train Km
- Communications backbone	Backbone assets have a primary purpose of providing train control services.	Train Km
- Infrastructure Plant & equipment	Track maintenance equipment etc.	Train Km
- Signals – control systems	Control systems include real time information systems, signal control systems and train/track monitoring systems.	Train Km
- Other	Motor vehicles, Office equipment, Non-backbone comms. Equip, Other below rail facilities and Inventories	Train Km
Operations		
- Train Control and Scheduling	The operation of the train control centres and any operations management activities.	Train Km
- Signalling	The operation of signal cabins and centralised train control systems for the safeworking of trains along corridors and in yards.	Train Km
Infrastructure maintenance		
- Track and civil works, Buildings & Facilities and Signals		Predominantly directly Attributable Otherwise track Km
-Telecoms		Train Km
Infrastructure/Asset Management	The administration and management of infrastructure maintenance.	Train Km
Rail Access management	Includes the negotiation and management of access agreements with operators and the regulatory regime with the ERA.	Train Km
Corporate Overheads and other		
- Corporate	CE, Board and Corporate strategy, Corporate Finance and procurement	Train Km
- Corporate Services	HR, IT, Legal and accounting Services and Engineering services and any other costs defined in section 5.1	Train Km

C Route sections

The railway infrastructure described in the TPI Railway and Port Agreement between the loadout at the Cloudbreak mine and the dump station servicing TPI's port facilities and additional infrastructure at Anderson Point, Port Hedland.