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Annex I **ACCESSION NOTICE**

To: **The Parties to the Mbalam Mining Convention**

From: [•]

Dated: [•]

Dear Sir/Madam,

We refer to the Mbalam Mining Convention (the "**Convention**"). Terms defined in the Convention shall have the same meaning in this Accession Notice unless given a different meaning in this Convention.

We hereby confirm that we [are one of the Acceding Parties named in the Convention and] hereby wish to accede to the Convention as a Party, in accordance with Article 6.4 (Accession to this Convention) of the Convention and to be bound by and benefit from all of the rights and obligations of the [Mine Project Company/Railway Project Company/Mineral Terminal Project Company]. We hereby represent and warrant to the State that as of the date of this Agreement, the representations and warranties in Article [5.1] of the Convention are true and correct with references to Cam Iron being replaced with references to us.

We hereby give you notice that we wish to become a Party to the Convention in accordance with Article 6.4 thereof.

The address and the fax number to which any communication to be given to us in connection with the Convention should be addressed are as follows:

Address: [•]

Fax No.: [•]

Attention: [•]

This Accession Notice is governed by the laws of the Republic of Cameroon.

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This Accession Notice is governed by the laws of the Republic of Cameroon.

The Republic of Cameroon

Represented by:

His Excellency, Emmanuel BONDE, Minister of Industry, Mines and Technological Development

His Excellency
Mr. Emmanuel
BONDE

Cam Iron SA

Represented by:

Mr. Giulio CASELLO, Chairman of the Board of Directors, and Mr. Serge ASSO'O MENDOMO General Manager

Mr. Giulio
CASELLO

Mr. Serge ASSO'O
MENDOMO

Annex II **BF CONSTRUCTION CONDITIONS**

Item	BF Construction Condition
1	The estimated investment and exploitation costs (including reasonable contingency, escalation and inflation allowances and the estimated charge for power supply referred to in Article 10.5) and the actual and forecast iron ore prices for the relevant iron ore products (based on the CRU benchmark price assessments with necessary modifications and adjustments) as at that date being such that they would enable the marketing of each of the High Grade Ore and the Beneficiated Ore at internationally competitive prices and Cam Iron is to achieve an Internal Rate of Return for the aggregate of the Beneficiation Operations of not less than the Reference Rate plus five hundred (500) basis points.

The Republic of Cameroon

Represented by:

His Excellency, Emmanuel BONDE, Minister of Industry, Mines and Technological Development

His Excellency
Mr. Emmanuel
BONDE

Cam Iron SA

Represented by:

Mr. Giulio CASELLO, Chairman of the Board of Directors, and Mr. Serge ASSO'O MENDOMO General Manager

Mr. Giulio
CASELLO

Mr. Serge ASSO'O
MENDOMO

Annex III

Tariff Framework

Framework for Tariff for Railway Services

1 Definitions

Terms and expressions used in this Framework shall have the same meaning as in the Convention unless the contrary intention appears:

Access Holder means a party that has entered into a Railway Haulage Agreement with the Railway Project Company in respect of obtaining access to Railway Services to be provided in an Expansion Stage, which party may be the Mine Project Company, an Affiliate, Congo Iron or Third Party.

Expansion Capital Cost means the total of all direct and indirect costs incurred by or on behalf of an Access Holder for the purposes of an Expansion Stage, being costs incurred in developing the following assets:

(a) all assets comprising the Additional Spur to be utilised by Railway Project Company for the purposes of providing the Railway Services to an Access Holder;

(b) such assets as are required for the purposes of upgrading the Mainline Railway in order to:

(i) provide Railway Services to that Access Holder; and

(ii) maintain the capacity of the Mainline Railway for the Initial Capacity Users or any other Access Holder that may have entered into a Railway Haulage Agreement and incurred Expansion Capital Costs; and

(c) such assets comprising the Mainline Railway as are for the purposes of the integration of the Additional Spur referred to in paragraph (a) with the Mainline Railway.

Fixed Operating Costs means all direct and indirect costs incurred by or on behalf of the Railway Project Company in operating the Railway, other than the Variable Operating Costs.

Initial Capacity User means either the Mine Project Company or Congo Iron as a party to a Railway Haulage Agreement with respect to the Initial Capacity of the Railway Facilities.

Initial Capital Cost means the total of all direct and indirect costs incurred by or on behalf of the Railway Project Company in developing the Initial Capacity of the Railway Facilities including costs incurred before the Date of Entry into Force of the Convention.

OBV means the opening balance value of an asset.

PV means present value.

Railway Services means haulage and freight services which the Railway Project Company has contracted to provide to a User.

State means the Republic of Cameroon.

State Charge means the charge referred to in Article 4.6Republic of Cameroon

System Efficiency means the capacity of Mainline Railway which is being achieved or which should be being achieved if fully utilised prior to the Access Holder being provided with a Railway Service.

Tariff means the charge per unit of Railway Service payable under Article 2 for the Railway Project Company providing Railway Service.

User means either an Initial Capacity User or an Access Holder.

Variable Operating Costs means the following direct and indirect costs incurred by or on behalf of the Railway Project Company in operating the Railway: including diesel fuel, maintenance, labour costs for train and maintenance crews.

WACC means the weighted average cost of capital.

2 Payment obligation

(a) During the term of the Railway Haulage Agreement, the Mine Project Company must pay the Railway Project Company the Tariff on a monthly basis, as calculated in accordance with Article 3 and otherwise in accordance with the terms of the Railway Haulage Agreement.

(b) During the term of the Congo Railway Haulage Agreement, Congo Iron must pay the Railway Project Company the Tariff on a monthly basis, as calculated in accordance with Article 3 and otherwise in accordance with the terms of the Congo Railway Haulage Agreement.

(c) During the term of a Railway Haulage Agreement with an Access Holder, that Access Holder must pay the Railway Project Company the Tariff on a monthly basis, as calculated in accordance with Article 4 and otherwise in accordance with the terms of the Railway Haulage Agreement with that Access Holder.

3 Tariff payable by Mine Project Company and Congo Iron for Initial Capacity

3.1 Two part tariff structure

(a) The Tariff payable by Mine Project Company and Congo Iron for the Initial Capacity of the Railway Facilities is based on a two part tariff structure. The two part tariff proposes that the Initial Capacity User pays a fee to use any amount of the Railway Service provided using the Railway Facilities and a charge per unit of the Railway Service actually used which does not vary with the level of usage.

(b) The two part tariff comprises of:

(i) a capital charge for forecast capacity of the Railway infrastructure to cover capital costs associated with the Initial Capacity; and

(ii) a usage charge for the actual use of the Railway infrastructure to cover the Fixed Operating Costs and Variable Operating Costs.

3.2 Capital charge

(a) The capital charge for any tariff will consist of a return on capital and return of capital, where:

(i) the capital charge component is calculated using an annuity formula on the share of capital costs attributable to an Initial Capacity User;

(ii) the return on capital is determined with reference to a WACC; and

(iii) the return of capital is determined with reference to a capital payback period.

(b) During the Construction Phase and Project Commissioning, the return on capital element is to be calculated and capitalised (added to the asset base). The interest rate applied to the capital balance during the Construction Phase is to be equal to the tariff WACC.

(c) Return of capital to be depreciated using the straight line method for assets with a useful life less than the remaining life of the Railway Concession. Assets with useful lives longer than the remaining life of the Railway Concession (other than assets acquired using sustaining capital which is neither budgeted for or funded from insurance proceeds in the last 5 years of the life of the Railway Concession) are to be depreciated using the units of production method to ensure that all capital it depreciated over the life of the Railway Concession.

(d) The WACC is to be based on a real, pre-tax basis in US currency or other currency equivalent.

3.3 Single price path

(a) The capital charge component for the Railway Services is, subject to Article 3.3(c), determined over a single interval equal to the duration of the Railway Concession.

(b) The interval is known as the building block horizon and establishes the period over which revenues (and hence charges) are calculated to meet the costs calculated via the building blocks (not the overall cost of investments).

(c) Price revisions will occur (and building block horizons will be adjusted) when external economic events occur (such as changes to the risk free rate, cost of debt or market risk premium) or unplanned capital expansion is incurred (threshold levels to be determined). Where the charges are revised the capital value of the investment should be adjusted for any new investment in the Railway infrastructure.

(d) Where capital is invested to provide Railway Services for different products, or where the handling characteristics of an Initial Capacity User's product is such that they require a disproportionate usage of the capacity then the total cost to be recovered, via the capital cost component, is to be allocated equitably to distribute the capital value of dedicated facilities or capital value based on the effective use of the capacity in the provision of the Railway Services.

(e) At the end of each service year, the capital charge for that year is to be determined by reference to actual gross tonne kilometres against projected gross tonne kilometres for below Railway Services and actual cycle times against projected cycle times for the above Railway Services and an adjustment is to be made. To the extent that the total actual tonnes of the Initial Capacity Users are less than the Initial Capacity then each shall pay a proportionate share of the capital charge attached to the shortfall.

3.4 Allocation of the capital charge

Services

The capital charge is to comprise of the following Railway Services:

(a) provision of **below Railway** infrastructure. Below Railway infrastructure includes the Railway Facilities, namely track work, roads and crossing, bridges, drainage, earthworks, signalling and communications, camps, buildings, indirect expenditure, maintenance and associated spares, and sustaining capital expenditure;

(b) provision of **above Railway** infrastructure. Above Railway infrastructure includes locomotives, ore cars, bogies and other rolling stock, and other associated sustaining capital expenditure; and

(c) provision of any other service (to be determined) that is associated with use of an asset that is not contemplated in Articles 3.4(a) or 3.4(b).

Nodes/ Junctions

The capital charge is to be calculated for sections of the Railway Facilities between each node/junction for the use of the below Railway infrastructure in the provision of the Railway Services to the Initial Capacity User.

The capital charge is to be calculated for distances between the loading point at the mine and the unloading point at the Mineral Terminal for the use of the above Railway infrastructure in the provision of the Railway Services to the Initial Capacity User.

Flag Fall

The capital charge is to be separated into a flag fall component and a mass distance component in respect of the use of the below Railway infrastructure in the provision of the Railway Services to the Initial Capacity User.

The flag fall component is to be 25% of the CCsd (as determined in accordance with Article 3.7(a)) and the mass distance component is 75% of the CCsd (as determined in accordance with Article 3.7(a)) where the sum of 25% and 75% equals 100%.

The flag-fall component will be calculated with reference to the number of return journeys, and the mass distance component will be calculated with reference to the mass distance measured in gross tonnes per kilometre.

3.5 Determining the return of capital (depreciation)

(a) The assets which are to comprise the Railway infrastructure are all long life assets.

(b) In determining the depreciation rate consideration is given to the asset lives of each major component of Railway infrastructure. Generally the depreciation rate is determined by the shorter of the economic life of the mine served by the Railway infrastructure, the technical life of the Railway infrastructure or the term of the Railway Concession. In assessing the life of the Project served by the Railway infrastructure asset, consideration should also be paid to the term of the Railway Haulage Agreement entered into by the parties.

3.6 Return on and return of capital

(a) The capital charge for the Railway Services is to be determined from the following:

(i) the return on the capital value of the Railway infrastructure at the beginning of each period and this is to be calculated by applying a real rate of return to the capital value of the Railway infrastructure at the beginning of each year; and

(ii) the return of capital calculated as depreciation on the capital value of the Railway infrastructure.

(b) At the beginning of the first year for which the capital charges for Railway Services are to be determined the capital value of the Railway infrastructure is to be the total capital cost of developing the Railway infrastructure (including all expenditure on the Railway relating to earthworks, drainage, culverts, bridges, roads, crossings, track work, signalling, communications, rolling stock, maintenance facilities, spares, camps, contractor indirects, engineering and working capital costs such as capitalised interest.)

(c) At the beginning of each subsequent period the capital value of the Railway infrastructure is:

$$C_t = C_{t-1} + Capex_{t-1} - DEP_{t-1}$$

Where:

- C_t is the capital value of the Railway infrastructure at the beginning of year t;
- C_{t-1} is the capital value of the Railway infrastructure at the beginning of the year t-1;
- $Capex_{t-1}$ is any new investment in Railway infrastructure during the year t-1; and
- DEP_{t-1} is the depreciation in year t-1 on the capital value of the Railway infrastructure.

(d) Using this notion the return on capital in year t is to be the product of the real rate of return and the capital value of the Railway infrastructure at the beginning of year t, such that:

$$RET_t = C_t \times WACC_t$$

Where:

- RET_t is the return on the capital for the Railway infrastructure during year t;
- C_t is the capital value of the Railway infrastructure at the beginning of the year t; and
- $WACC_t$ is the real rate of return applicable during the period of 25 years for which the capital charges are determined. The real WACC is discussed in Article 3.9.

(e) The return of capital, that is the depreciation on the capital value of the Railway infrastructure, is to be calculated on the following basis:

(i) over the asset's useful life for those assets with useful lives of less than the life of the Railway Concession;

(ii) assets with useful lives longer than the remaining life of the Railway Concession are to be depreciated using the units of production method to ensure that all capital it depreciated over the life of the mine; and

(iii) any sustaining capital incurred within 5 years of the end of the Railway Concession is to be depreciated in accordance with the economic life of the asset and any amount not depreciated at the end of the Railway

Concession where it is neither budgeted for or funded from insurance proceeds shall be paid to the Railway Project Company by the State.

3.7 Determining the Capital Charge

(a) The capital charge for the Railway Service is calculated as:

$$CC_{s,d} = \frac{\sum_{t=1}^{n}(RET_{s,d,t} + DEP_{s,d,t})x\ (1 + WACC)^{-t}}{\sum_{t=1}^{n} T_{s,d,t}\ x\ (1 + WACC)^{-t}}$$

Where:

- $CC_{s,d}$ is the capital charge (in real terms, at the commencement of the period) for the Railway Service s and track length d;
- $RET_{s,d,t}$ is that part of the forecast return on the capital value of the Railway infrastructure allocated to the Railway Service s and track length d at the beginning of year t;
- $DEP_{s,d,t}$ is that part of the forecast depreciation in year t on the capital value of the Railway infrastructure allocated to the Railway Service s over track length d;
- $T_{s,d,t}$ is the nominated capacity in the Railway infrastructure available for provision of the Railway Service s over track length d in year t where nominated capacity is measured in both mass distance and return journeys for the use of the below Railway infrastructure in the provision of the Railway Service and cycle days (or cycle hours) for above Railway infrastructure used in the provision of the Railway Service;
- s designates service (whether it be for below Railway or above Railway infrastructure);
- d designates the distance between nodal points or Railway junctions over which the charge is determined; and
- t = 1, 2, ...n designates a year during the period of 25 years for which the capital charges for the Railway Service are determined.

(b) The usage charge for the Railway Service is to be calculated from the cost of operating and maintaining the Railway infrastructure.

3.8 Determining Usage Charges

(a) The usage charge is to comprise of the following Railway Services:

(i) provision of Railway transportation of iron ore from the mine site to the Mineral Terminal and ore car dumping, general maintenance of the system; and

(ii) provision of Railway transportation of freight from the Mineral Terminal to the mine site.

(b) The usage charges for the Railway Services are to be calculated from the cost of operating and maintaining the Railway infrastructure.

(c) The Rail Project Company will recover any revenue shortfall (or repay any over recovery) at the end of each year.

(d) The allocation is to be based on the projected gross mass (in wet metric tonnes) of ore handled by the Railway infrastructure.

(e) At the commencement of each year the usage charge (not including any end of year repayment or recovery) for the Railway Service is to be calculated as:

$UC_{sd} = (EVC_{sd} + EFC_{sd} + [\text{true up}]) / Q_{sd} \times (1 + UCM)$

Where:

- UC_{sd} is the usage charge for the Railway Service s to apply during the year for the track length d;
- EVC_{sd} is that part of the estimated Variable Operating Cost of operating and maintaining the Railway infrastructure during the year which is allocated to the Railway Service s and track length d;
- Q_{sd} is the forecast total quantity (measured in gross tonnes) in respect of the Railway Service s over track length d is to be provided during the year;
- EFC_{sd} is that part of the estimated Fixed Operating Cost of operating and maintaining the Railway infrastructure during the year which is allocated to the Railway Service s and track length d; and
- UCM is the operating margin of 12% to be applied to the usage charge to be charged by the Railway Project Company.

(f) The Fixed Operating Cost component of estimated costs for a tariff represents that portion of the operating and maintenance costs (both direct and indirect) incurred in providing the Railway Services that do not vary, irrespective of the users' utilisation of the Railway Services, including a margin.

(g) The Variable Operating Cost component of operating costs for a tariff represents that portion of the operating and maintenance costs (both direct and indirect) incurred in providing the Railway Service that varies depending upon the users' utilisation of the Railway Service, including a margin.

3.9 Annual indexation

To accommodate increases in factor costs, capital investment plans and operating model changes, the charge should be adjusted periodically (preferably annually). The charges should be adjusted annually based on an indexation adjustment factor using the consumer price index applicable in the United States of America unless otherwise agreed.

3.10 Determining the rate of return

(a) Cost of capital is the rate of return required by investors for financing a project which is similar to the Project. For a project that is financed with a combination of equity and debt, the cost of capital is the WACC required by equity holders and the debt holders in the capital market.

$$WACC = \frac{E}{V} \times Ke + \frac{D}{V} \times Kd$$

where:

$\frac{E}{V}$ *is the proportion of equity in the total financing of the project*

Ke *is the nominal cost of equity*

$\frac{D}{V}$ *is the proportion of debt in the total financing of the project*
Kd is the nominal cost of debt

(b) The WACC can be expressed in either post-tax or pre-tax terms. The nominal post-tax WACC is:

$$WACC_{\text{nominal post-tax}} = \frac{E}{V} \times Ke + \frac{D}{V} \times Kd \times (1 - Tax)$$

(c) As the proposed pricing method uses real pre-tax WACC, the nominal post-tax WACC would need to be converted to real pre-tax WACC using the forward transformation method.

(d) First, the nominal pre-tax WACC is obtained by adjusting the tax impact:

$$WACC_{\text{nominal pre-tax}} = \frac{E}{V} \times \frac{Cost\ of\ Equity}{(1 - Tax)} + \frac{D}{V} \times Cost\ of\ Debt$$

(e) Then, the nominal post-tax WACC is adjusted for expected inflation, using the Fisher equation, to provide a real pre-tax WACC:

$$WACC_{\text{real pre-tax}} = \frac{(1 + WACC_{\text{nominal pre-tax}})}{(1 + Expected\ Inflation)} - 1$$

(f) Determining the cost of equity (Ke): Capital Asset Pricing Model (CAPM) is the most widely accepted method for estimating cost of equity. The rate of return required by equity investors on a risk asset is the sum of the risk free rate of return and a risk premium as the product of the excess return on a well-diversified market portfolio of risky asset and the "beta" of the risky asset.

$$Ke = R_f + \beta_e \times (R_m - R_f)$$

Where:

- R_f is the risk free rate of return;
- $(R_m - R_f)$ is the market risk premium; and
- β_e is the equity beta, a normalised measure of the covariance between the return of the risky asset and the return on a well-diversified market portfolio of risky assets.

(g) Determining the cost of debt: The cost of debt is the rate of return required by debt holder for a risky asset.

$$K_d = R_f + Debt\ Risk\ Premium + Debt\ Issuing\ Cost$$

(h) Theoretically, the debt risk premium can be calculated from the CAPM equation with the debt "Beta" applied. However, in practice, market practitioners commonly use the observed yield of issued debt securities with same credit rating to estimate the debt risk premium.

(i) Regulators also recognise the cost of issuing debt, therefore, a margin is provided to recover the cost of obtaining a credit rating, legal fees and underwriting expenses.

(j) Parameters for WACC calculation:

(i) Risk free rate (R_f): This parameter cannot be measured directly, therefore it has to be theoretically constructed. The Australian approach is to measure

the most recent 20 trading days' average yield on Australian Government bonds with 10 years to maturity. An equivalent international proxy may be the US bond market of similar maturity.

(ii) Market Risk Premium (R_m): This parameter cannot be observed directly, therefore it has to be estimated using econometric methods.

(iii) Capital Structure: The capital structure usually follows market practice as evidence in decisions by regulators.

(iv) Debt Margin and Debt Issuing Cost: The parameter is calculated with reference to the current debt margin observed in the market for the entities with BBB+ credit ratings. The cost of raising capital is measured by debt financing fees for the Project.

(v) Expected Inflation: Expected inflation rates can be calculated with reference to the difference between nominal and indexed US Government bond yields using the Fisher equation.

(vi) Tax: 25% corporate tax rate.

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4 Tariff payable by Access Holder for Expansion Stage

4.1 Access Holder Tariff

The Tariff payable by the Access Holder is comprised of the following elements:

(a) a capital charge for forecast capacity on that portion of the Mainline Railway which is being used to provide the Access Holder with the Railway Services, which charge is to be calculated on the same principals and capital costs as the charge for the Initial Capacity Users;

(b) less a notional charge for the Access Holder's investment in the upgrade of the Mainline Railway and to provide above Railway infrastructure capacity in order to provide the Expansion Capacity but does not include capital expended in order to maintain System Efficiency or to construct the Additional Spur Line;

(c) a usage charge for actual use of the Railway infrastructure to cover the Fixed Operating Costs and Variable Operating Costs; and

(d) a State Charge for granting of Railway Services to the Access Holder over part of the track length in the territory of the State.

4.2 Capital Charge

The capital charge for the Access Holder is the same capital charge for the Initial Capacity as payable by the Initial Capacity Users for the Railway Services and track length being used by the Access Holder.

4.3 Notional Charge

(a) The notional charge is designed to compensate the Access Holder's Expansion Capital Costs in the common use Railway infrastructure.

(b) The notional charge is to be calculated such that it mirrors the same provisions as the capital charge as set out in Article 3 above, with the exception that only the mass distance component will apply to the calculation of the use of the below Railway infrastructure in the provision of the Railway Service.

(c) In calculating the notional charge the following applies:

(i) the WACC remains unchanged;

(ii) the capital value is the amount invested by the Access Holder;

(iii) the depreciation is based on the Access Holder's life of mine at the time of its decision to provide the expansion capital;

(iv) the return on capital is based on the Expansion Capital Cost and the WACC;

(v) the Access Holder's forecast capacity in the Railway infrastructure; and

(vi) the flag fall component is 0% and mass distance component is 100%.

4.4 Usage Charge

The usage charge for the Access Holder is the same as the usage charge as payable by the Initial Capacity Users for the Railway Service and track length being used by the Access Holder.

4.5 Base Charge

(a) The base charge is to be included in the Tariff and is payable by the Access Holder where the capital charge less the notional charge referred to in Article 4.3 and the notional capital charge referred to in Article 4.9 is a positive number. This base charge is to shared [50%] Cam Iron and [50%] the State.

(b) If after calculating the base charge the amount is negative i.e. it is greater than the capital charge calculated in accordance with Article 4.1(a) then for the purposes of the tariff payable by the Access Holder, the base charge will be zero.

4.6 State Charge

The State Charge represents an amount being charged by the State, which amount shall not be unreasonable in all the circumstances, having regard, amongst other things, to the development and operation of an internationally competitive iron ore industry in and about the territory of the State and collected by the Railway Project Company for allowing the Railway Project Company to provide Railway Services to the Access Holder over part of the track length in the territory of the State.

4.7 Tariff Payable

At the commencement of each period the Tariff for the Railway Service will be calculated as:

$$AHT_{sd} = (CC_{sd} \times IA) - AHR_{sd} + UC_{sd} + SC_{sd}$$

Where:

- AHT_{sd} is the Access Holder Tariff for the Railway Service s to apply during the year for the track length d;
- CC_s is the capital charge (in real terms) for the Railway Service s and track length d;

- IA is the inflation adjustment factor applied to the capital charge ($CC_s d$) to escalate the capital charge from the effective price level date to the revised price level date consistent with the date that AHT_{sd} is being calculated;
- AHR_{sd} is the notional charge (in real terms) for the Railway Service s and track length d;
- UC_{sd} is the usage charge for the Railway Service s to apply during the year for the track length d; and
- SC_{sd} is the State charge for the Railway Service s to apply during the year for the track length d.

4.8 Efficiency Provisions

(a) Expansion Capital must provide the same or greater levels of operating efficiency and latent capacity as the Initial Capacity Users realised in undertaking the initial investment.

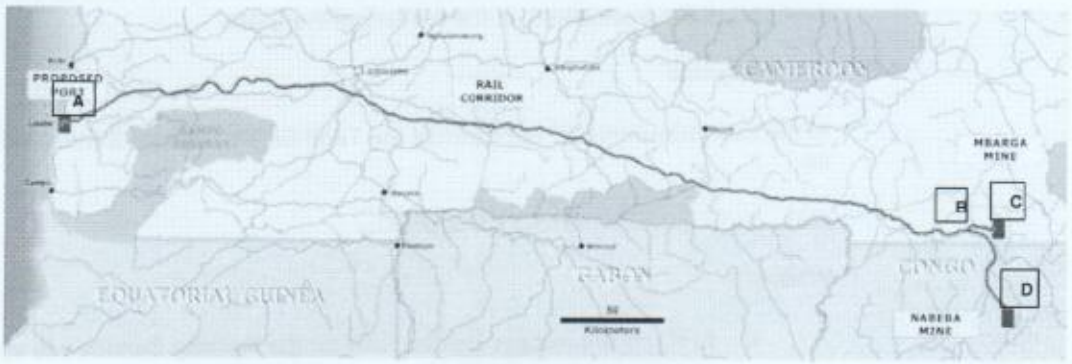
(b) Each Access Holder to the Mainline Railway must:

(i) ensure disruptions to existing operations are minimised throughout the Construction Phase. Each successive Access Holder must communicate all planned disruptions to the Initial Capacity Users and any preceding Access Holder and liquidated damages may result in the event this does not occur or where the length of the actual disruption is greater than the period of the planned disruption; and

(ii) hold harmless each Initial Capacity User and any preceding Access Holder against any increase in either Fixed Operating Costs or Variable Operating Costs arising as a consequence of that Access Holder being provided with Railway Services.

5 Illustrative Worked Examples

5.1 Worked Example Number 1: Base Charge for Below Railway Infrastructure



(a) Charge applies to the use of below Railway infrastructure for the provision of Railway Services between nodes A (Mineral Terminal) and B (Nabeba / Mbarga rail junction)

(b) Below Railway capital costs of the Mainline Railway from node A to B are US$2.0B

(c) WACC is 10% (Real, Pre-Tax)

(d) The estimate production rate is 35Mtpa (excluding moisture)

(e) Free moisture content is 7%

(f) The Mainline Railway is 489km in length between nodes A and B

(g) Gross (or laden) weight is 25,000t per consist

(h) Tare (or unladen) weight is 5,000t per consist

(i) The Construction Phase is 3 years

(j) The Exploitation Phase is 25 years

(k) The total project life is 28 years

(l) Capitalised interest applies during the Construction Phase

(m) Capex is assumed to be fully depreciated over the Exploitation Phase

(n) No sustaining capital is assumed

(o) Capital charge is calculated in real terms

(p) Flag fall component is 25% and mass distance component is 75%

Step 1. Apply the Capital Charge Methodology

Using the formula as set out in Article 3.7(a) determine the capital charge for the use of the below Railway infrastructure in the provision of the Railway Service over the distance between nodes A and B.

$$CC_{s,d} = \frac{\sum_{t=1}^{n}\left(RET_{s,t,d} + DEP_{s,d,t}\right) \times (1+WACC)^{-t}}{\sum_{t=1}^{n} T_{s,d,t} \times (1+WACC)^{-t}}$$

The numerator can be separated into the return component and the depreciation component as follows:

$$CC_{s,d} = \frac{\sum_{t=1}^{n} RET_{s,t,d} \times (1+WACC)^{-t} + \sum_{t=1}^{n} DEP_{s,d,t} \times (1+WACC)^{-t}}{\sum_{t=1}^{n} T_{s,d,t} \times (1+WACC)^{-t}}$$

The above formula can be simply restated as follows:

$$CC_{s,d} = (PV\ of\ Return\ on\ Capital + PV\ of\ Return\ of\ Capital) / PV\ of\ Capacity$$

Therefore, $CC_{s,d}$ is determined based on three components:

1. PV of return on capital (refer Step 2);
2. PV of return of capital (refer Step 3); and
3. PV of the capacity (refer Step 4).

Step 2. Calculate the Return On Capital

The calculation of the return on capital requires the sub-component calculations of the OBV during the Construction Phase and OBV during the Exploitation Phase before finally calculating the PV of the return on capital.

Step 2a. Calculate the OBV

$OBV_{s,d,t}$ is the opening balance value of the asset at period t.

OBV calculation is different between the Construction Phase and the Exploitation Phase.

OBV during the Construction Phase

- OBV is adjusted for new capital expenditure and capitalised interest (the return on capital earned during Construction Phase):

$$OBV_{s,d,t} = OBV_{s,d,t-1} + Capitalised\ Interest_{t-1} + New\ Capex_{t-1}$$

$$= OBV_{s,d,t-1} + OBV_{s,d,t-1} \times WACC + New\ Capex_{t-1}$$
$$= OBV_{s,d,t-1} \times (1 + WACC) + New\ Capex_{t-1}$$

- Therefore, at the completion of the Construction Phase or the commencement of the Exploitation Phase at year 3:

$$OBV_{s,d,4} = \sum_{t=1}^{t=4} Annual\ Capex\ \times (1 + WACC)^n$$
$$= (\$512.8\ m \times 1.10 + \$672.2\ m \times 1.10^2 + \$810.3m \times 1.10^3)$$
$$= \$2,170.2\ m$$

- The total of $2,170.2m represents the $1,995.3m in capital expenditure and $174.9m of capitalised interest.
- Column 2 of Table 1(below) illustrates the periods 1 through 3 in the Construction Phase.

OBV during the Exploitation Phase

- $OBV_{s,d,t}$ does not incur capitalised interest, however, it should be adjusted by any new capital expenditure and depreciation:

$$OBV_{s,d,t} = OBV_{s,d,t-1} + New\ Capex_{t-1} + Depreciation_{t-1}$$

- Column 2 of Table 1 illustrates the OBV over the periods 4 through to 28 in the Exploitation Phase.

Step 2b. Calculate the PV of Return On Capital

- The interest during construction period is capitalised into the $OBV_{s,d,4}$, which is recovered via return of capital during the Exploitation Phase. Therefore, the PV of return on capital will only include return on capital during the Construction Phase.

$$PV\ (Return\ on\ Capital) = \sum_{t=4}^{t=28} RET_{s,d,t}\ \times\ (1 + WACC)^{-t}$$
$$= \sum_{t=4}^{t=28} OBV_{s,d,t}\ \times WACC \times (1 + WACC)^{-t}$$

$$= OBV_{s,d,4} \times WACC \times (1 + WACC)^{-4} + \sum_{t=5}^{t=28}(OBV_{s,d,t-1} + Capex_{t-1} - DEP_{s,d,t-1}) \times WACC \times (1 + WACC)^{-t}$$

$$= \$2{,}170.2m \times 10\% \times 1.1^{-4} + (\$2{,}083.4m + \$0m - \$86.8m) \times 10\% \times 1.1^{-5} + \cdots + (\$173.6m + \$0m - \$86.8m) \times 10\% \times 1.1^{-28}$$

$$= \$1{,}382.2\ m$$

- Column 7 of Table 1 below illustrates the return on capital through the Construction Phase and Exploitation Phase.

Step 3. Calculate the PV of Return Of Capital

Step 3a. Calculate the periodic depreciation

The annual depreciation $DEPs, d, t$ is calculated below:

$$DEP_{s,d,t} = \frac{OBV_{s,d,4}}{Operational\ life}$$

$$= \frac{\$2{,}170.2\ m}{25\ years}$$

$$= \$86.8\ m/year$$

- $OBV_{s,d,4}$ is the opening balance value of the asset at the commencement of the Exploitation Phase.

Step 3b. Calculate the PV of the Return Of Capital

$$PV\ (Return\ of\ Capital) = \sum_{t=4}^{t=28} DEP_{s,d,t} = \times\ (1 + WACC)^{-t}$$

$$= \$86.8m \times 1.1^{-4} + \$86.8m \times 1.1^{-5} + \cdots + \$86.8m \times 1.1^{-28}$$

$$= \$788.0\ m$$

- Column 8 of table 1 below illustrates the Return of Capital.

Step 4. Calculate the PV of the Capacity

Step 4a Mass distance component

The mass distance component is measured in gross tonne kilometres and is represented by:

$$Mass\ Distance\ (gt.km) = (GCW + TCW) \times J \times d$$

Where:

- GCW = Gross consist weight
- TCW = Tare consist weight
- J = Number of round trip journeys in the year
- d = distance between nodes A and B

And J is calculated as follows:

J = Production volume / (gross consist weight – tare consist weight)
= 37.45mtpa / (25,000t – 5,000t)
= 1873 journeys per annum

On an annual basis, this is represented by:

Mass Distance (gt.km) = (25,000t + 5,000t) x 1872.5 journeys per annum x 489km = 27,470 x 10^6gt.km

$$PV\ (Mass\ Distance) = \sum_{t=1}^{n} T_{s,d,t} \times (1 + WACC)^{-t}$$

$$= 25{,}076Mgt.km \times 1.1^{-4} + 27{,}470Mgt.km \times 1.1^{-5} + \cdots + 27{,}470Mgt.km \times 1.1^{-28} = 247{,}169Mgt.km$$

Column 9 of Table 1 illustrates the mass distance values during the Exploitation Phase.

Step 4b. Flag Fall Component

The flag fall component is measured return journeys and is represented by:

J = Production volume / (GCW – TCW)

Where:

- GCW = Gross consist weight
- TCW = Tare consist weight
- J = Number of round trip journeys in the year

And J is calculated as follows:

J = Production volume / (gross consist weight – tare consist weight)
= 37.45mtpa / (25,000t – 5,000t)
= 1873 journeys per annum

Column 10 of Table 1 illustrates the capacity values during the Exploitation Phase.

The PV of the return journeys is calculated as:

$$PV\ (Return\ Journeys) = \sum_{t=1}^{n} T_{s,d,t} \times (1 + WACC)^{-t}$$

$$= 1{,}709J \times 1.1^{-4} + 1{,}873J \times 1.1^{-5} + \cdots + 1{,}873J \times 1.1^{-28} = 16{,}849\,J$$

Step 5. Calculate the Capital Charge

Step 5a. Mass distance component

The capital charge in real terms is represented by:

$$CC_{s,d} = \frac{(PV\ of\ Return\ on\ Capital + PV\ of\ Return\ of\ Capital) \times (1 - Flagfall\ \%)}{PV\ of\ Gross\ Tonne\ Kilomtres}$$

Therefore, using the amounts as determined in the above steps the capital charge for the use of the below Railway infrastructure in the provision of Railway Services over the distance between nodes A and B:

$$CC_{s,d} = \frac{(\$1{,}382.2m + \$788.0m)\ x75\%}{247{,}169\ x\ 10^6 gtkm}$$

$$= \$0.00642/gtkm$$

This equates to:

$$CC_{s,d} = \$0.00659/gt.km\ \times\ 27{,}470\ x\ 10^6 gt.km$$

$$= \$180.9\text{m annually or } \$5.17/\text{dmt equivalent}$$

Step 5b. Flag Fall component

The flag fall components of the capital charge in real terms is represented by:

$$CC_{s,d} = \frac{(PV\ of\ Return\ on\ Capital + PV\ of\ Return\ of\ Capital)x\ Flagfall\ \%}{PV\ of\ Return\ Journeys}$$

Therefore, using the amounts as determined in the above steps the capital charge for the use of the below Railway infrastructure in the provision of Railway Services over the distance between nodes A and B:

$$CC_{s,d} = \frac{(\$1{,}382.2m + \$788.0m)\ \times\ 25\%}{16{,}849J}$$

$$= \$32{,}201/J$$

This equates to:

$$CC_{s,d} = \$32{,}201/J\ \times\ 1{,}873J$$

$$\$60.3\text{m annually or } \$1.72/\text{dmt equivalent}$$

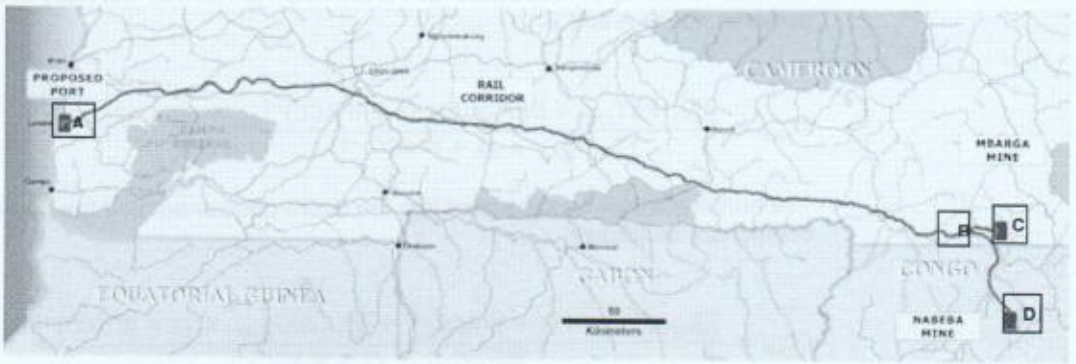
Table 1 – Calculation detail for worked example 1

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9	Column 10
Year	OBV	Capex	Capitalised Interest	Depreciation	CBV[1]	Return on Capital	Return of Capital	Capacity (Mgt.km)	Capacity (Return Journeys)
1	-	512.8	-	-	512.8	-	-	-	-
2	512.8	672.2	51.3	-	1,236.2	-	-	-	-
3	1,236.2	810.3	123.6	-	2,170.2	-	-	-	-
4	2,170.2	-	-	(86.8)	2,083.4	217.0	86.8	25,076	1,709
5	2,083.4	-	-	(86.8)	1,996.6	208.3	86.8	27,470	1,873
6	1,996.6	-	-	(86.8)	1,909.8	199.7	86.8	27,470	1,873
7	1,909.8	-	-	(86.8)	1,823.0	191.0	86.8	27,470	1,873
8	1,823.0	-	-	(86.8)	1,736.2	182.3	86.8	27,470	1,873
9	1,736.2	-	-	(86.8)	1,649.3	173.6	86.8	27,470	1,872

10	1,649.3	-	-	(86.8)	1,562.5	164.9	86.8	27,470	1,872
11	1,562.5	-	-	(86.8)	1,475.7	156.3	86.8	27,470	1,873
12	1,475.7	-	-	(86.8)	1,388.9	147.6	86.8	27,470	1,873
13	1,388.9	-	-	(86.8)	1,302.1	138.9	86.8	27,470	1,873
14	1,302.1	-	-	(86.8)	1,215.3	130.2	86.8	27,478	1,873
15	1,215.3	-	-	(86.8)	1,128.5	121.5	86.8	27,470	1,873
16	1,128.5	-	-	(86.8)	1,041.7	112.8	86.8	27,470	1,873
17	1,041.7	-	-	(86.8)	954.9	104.2	86.8	27,470	1,873
18	954.9	-	-	(86.8)	868.1	95.5	86.8	27,470	1,873
19	868.1	-	-	(86.8)	781.3	86.8	86.8	27,470	1,873
20	781.3	-	-	(86.8)	694.5	78.1	86.8	27,470	1,873
21	694.5	-	-	(86.8)	607.7	69.4	86.8	27,470	1,873
22	607.7	-	-	(86.8)	520.8	60.8	86.8	27,470	1,873
23	520.8	-	-	(86.8)	434.0	52.1	86.8	27,470	1,873
24	434.0	-	-	(86.8)	347.2	43.4	86.8	27,470	1,873
25	347.2	-	-	(86.8)	260.4	34.7	86.8	27,470	1,873
26	260.4	-	-	(86.8)	173.6	26.0	86.8	27,470	1,873
27	173.6	-	-	(86.8)	86.8	17.4	86.8	27,470	1,873
28	86.8	-	-	(86.8)	(0.0)	8.7	86.8	27,470	1,873
NPV						1,382.2	788.0	247,169	16,849
Tariff ($/gt.km & $/Return Journey)								0.00659	32,201

Note 1: CBV refers to Closing Balance Value, where $CBV_{t-1} = OBV_t$

Worked Example 2: Base Capital Charge – Above Railway Infrastructure



(a) Charge applies to the use of the below Railway infrastructure for the provision of Railway Services between nodes A (Mineral Terminal) and B (Nabeba / Mbarga rail junction) and nodes C and D

(b) Above Railway capital costs are US$394M

(c) WACC is 10% (Real, Pre-Tax)

(d) The Mainline Railway and relevant Initial Spur is 515km in length between nodes A and C (Mbalam), and 564km between notes A and D (Nabeba)

(e) The estimate production rate is 35Mtpa (excluding free moisture)

(f) Free moisture content is 7%

(g) The train cycle time is 22hrs 43min for Mbalam and 24hrs 26min for Nabeba, with a weighted average cycle time of 23hrs and 45min.

(h) Gross (or laden) weight is 25,000t per consist

(i) Tare (or unladen) weight is 5,000t per consist

(j) The construction period is 3 years

(k) The production period is 22 years

(l) The total project life is 28 years

(m) Capitalised interest applies during the construction period

(n) Capital expenditure is assumed to be fully depreciated over 10 years

(o) No sustaining capital is assumed

(p) Capital charge is calculated in real terms

Step 1. Apply the Capital Charge Methodology

Using the formula as set out in Article 3.7(a) determine the capital charge for the use of the below Railway infrastructure for the provision of Railway Services over the distance between nodes A and B.

$$CC_{s,d} = \frac{\sum_{t=1}^{n}\left(RET_{s,t,d} + DEP_{s,d,t}\right) \times (1+WACC)^{-t}}{\sum_{t=1}^{n} T_{s,d,t} \times (1+WACC)^{-t}}$$

The numerator can be separated into the return component and the depreciation component as follows:

$$CC_{s,d} = \frac{\sum_{t=1}^{n} RET_{s,t,d} \times (1+WACC)^{-t} + \sum_{t=1}^{n} DEP_{s,d,t} \times (1+WACC)^{-t}}{\sum_{t=1}^{n} T_{s,d,t} \times (1+WACC)^{-t}}$$

The above formula can be simply restated as follows:

$CC_{s,d} = (PV\ of\ Return\ on\ Capital + PV\ of\ Return\ of\ Capital) / PV\ of\ Capacity$

Therefore, CCs,d is determined based on three components:

1. PV of return on capital (refer Step 2);
2. PV of return of capital (refer Step 3); and
3. PV of the capital charge (refer Step 4).

Step 2. Calculate the Return On Capital

The calculation of the return on capital requires the sub-component calculations of the OBV during the Construction Phase and OBV during the Exploitation Phase before finally calculating the PV of the return on capital.

Step 2a. Calculate the Opening Balance Value (OBV)

$OBV_{s,d,t}$ is the opening balance value of the asset at period t.

OBV calculation is different between the Construction Phase and the Exploitation Phase.

OBV during Construction Phase

- OBV is adjusted for new capital expenditure and capitalised interest (the return on capital earned during the Construction Phase).

$$OBV_{s,d,t} = OBV_{s,d,t-1} + Capitalised\ Interest_{t-1} + New\ Capex_{t-1}$$

$$= OBV_{s,d,t-1} + OBV_{s,d,t-1} \times WACC + New\ Capex_{t-1}$$
$$= OBV_{s,d,t-1} \times (1+WACC) + New\ Capex_{t-1}$$

- Therefore, at the completion of the Construction Phase or the commencement of the Exploitation Phase at year 4

$$OBV_{s,d,4} = \sum_{t=1}^{t=3} Capital\ expenditure \times (1+WACC)^{n}$$
$$= (\$101.4m \times 1.1 + \$132.9m \times 1.1^2 + \$160.2m \times 1.1^3)$$

$$= \$429.0m$$

- The total of $429.0m represents the $394.4m in capital expenditure and $34.6m of capitalised interest.

- Column 2 of Table 2(below) illustrates the OBV over the periods 1 through 3 in the Construction Phase.

OBV during the Exploitation Phase

- $OBV_{s,d,t}$ does not incur capitalised interest, however, it should be adjusted by any new capital expenditure and depreciation:

$$OBV_{s,d,t} = OBV_{s,d,t-1} + New\ Capex_{t-1} + Deprecation_{t-1}$$

- Column 2 of Table 2 illustrates the OBV over periods 4 through to 13 in the Exploitation Phase.

Step 2b. Calculate the PV of Return On Capital

- The interest during the Construction Phase is capitalised into the $OBV_{s,d,4}$, which is recovered via return of capital during the Exploitation Phase. Therefore, the PV of return on capital will only include return on capital during Construction Phase.

$$PV\ (Return\ on\ Capital) = \sum_{t=4}^{t=14} RET_{s,d,t} \times (1 + WACC)^{-t}$$

$$= \sum_{t=4}^{t=14} OBV_{s,d,t} \times WACC \times (1 + WACC)^{-t}$$

$$= OBV_{s,d,4} \times WACC \times (1 + WACC)^{-4} + \sum_{t=5}^{t=14} (OBV_{s,d,t-1} + Capex_{t-1} - DEP_{s,d,t-1}) \times WACC \times (1 + WACC)^{-t}$$

$$= \$429.0\ m \times 10\% \times 1.1^{-4} + (\$390.0\ m + \$0m - \$39.0m) \times 10\% \times 1.1^{-5} + \cdots + (\$78.0m + \$0m - \$39.0m) \times 10\% \times 1.1^{-14} = \$175.7\ m$$

- Column 7 of Table 2 below illustrates the return on capital through the Construction Phase and the Exploitation Phase.

Step 3. Calculate the PV of Return Of Capital

Step 3a. Calculate the periodic depreciation

The annual depreciation $DEPs, d, t$ is calculated below:

$$DEP_{s,d,t} = \frac{OBV_{s,d,4}}{Operational\ life}$$

$$= \frac{\$429.0\ m}{11\ years} = \$39.0\ m/annum$$

$OBV_{s,d,4}$ is the opening balance value of the asset at the commencement of the Exploitation Phase.

Step 3b. Calculate the PV of the Return Of Capital

$$PV\ (Return\ of\ Capital) = \sum_{t=4}^{t=14} DEP_{s,d,t} \times (1 + WACC)^{-t}$$

$$= \$39.0m \times 1.10^{-4} + \$39.0m \times 1.10^{-5} + \cdots + \$39.0m \times 1.10^{-14} = \$253.3m$$

- Column 8 of Table 2 below illustrates the return of capital.

Step 4. Calculate the Capacity measured in cycle days per annum

The capacity is measured in cycle days per annum and is represented by:

$$CD = \frac{Delivery\ time}{24\ hours} \times \frac{Production\ Volume\ (Wet)}{Ore\ delivered\ per\ train}$$

$$= \frac{23.52}{24} \times \frac{37.45Mt}{20{,}000t}$$

$$= 1{,}836\ cycle\ days\ per\ annum$$

Where:

- CD = Cycle days; and
- Delivery time = Time in hours for ore train to complete a full circuit of the Mainline Railway including loading and unloading.

Step 4a. Calculate the PV of the Capacity

$$PV\ (Capacity) = \sum_{t=1}^{n} T_{s,d,t} \times (1 + WACC)^{-t}$$

$$= 1{,}676\ cd \times 1.10^{-4} + 1{,}836\ cd \times 1.10^{-5} + \cdots + 109\ cd \times 1.10^{-14} = 11{,}172\ cd$$

Step 5. Calculate the Capital Charge

The capital charge in real terms is represented by:

$$CC_{s,d} = \frac{PV\ of\ Return\ on\ Capital + PV\ of\ Return\ of\ Capital}{PV\ of\ Cycle\ Days}$$

Therefore, using the amounts determined in the above steps the capital charge for the use of the above Railway infrastructure for the provision of the Railway Services is:

$$CC_{s,d} = \frac{\$175.7\ m + \$253.3m}{11{,}172\ cd} = \$38{,}397/cd$$

On an annual basis this equates to:

$$CC_{s,d} = \$38{,}397 \times \frac{23.52}{24} \times \frac{37.50Mt}{20{,}000t}$$

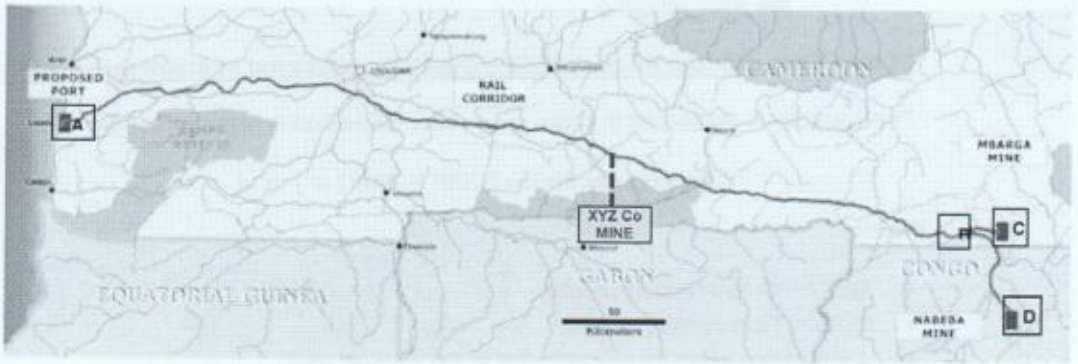
$$= \$70.5m$$

Or, $2.01/dmt equivalent.

Table 1 – Calculation detail for worked example 2

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9
Year	OBV	Capex	Capitalised Interest	Depreciation	CBV	Return on Capital	Return of Capital	Capacity (cd)
1	-	101.4	-	-	101.4	-	-	-
2	101.4	132.9	10.1	-	244.4	-	-	-
3	244.4	160.2	24.4	-	429.0	-	-	-
4	429.0	-	-	(39.0)	390.0	42.9	39.0	1,676
5	390.0	-	-	(39.0)	351.0	39.0	39.0	1,836
6	351.0	-	-	(39.0)	312.0	35.1	39.0	1,836
7	312.0	-	-	(39.0)	273.0	31.2	39.0	1,836
8	273.0	-	-	(39.0)	234.0	27.3	39.0	1,836
9	234.0	-	-	(39.0)	195.0	23.4	39.0	1,836
10	195.0	-	-	(39.0)	156.0	19.5	39.0	1,836
11	156.0	-	-	(39.0)	117.0	15.6	39.0	1,836
12	117.0	-	-	(39.0)	78.0	11.7	39.0	1,836
13	78.0	-	-	(39.0)	39.0	7.8	39.0	1,836
14	39.0	-	-	(39.0)	-	3.9	39.0	109
NPV						**175.7**	**253.3**	**11,172**
Tariff ($/cd)								**38,397**

5.2 Case Study 1 - New Entrant XYZ Co – Below Railway Tariff



(a) XYZ Co is a 35Mtpa (excluding moisture) operation

(b) Free moisture contents is 7%

(c) XYZ Co is an Access Holder

(d) XYZ Co first production in Q1 2019 and has a mine life of 20 years

(e) XYZ Co spends US$200m upgrading the Mainline Railway.

(f) XYZ Co uses 350km of the Mainline Railway network between nodes A and E

(g) XYZ Co has a cycle time of 18.5 hours or 0.77 days

(h) Gross (or laden) weight is 27,000t per consist

(i) Tare (or unladen) weight is 7,000t per consist

(j) Operating costs are charged at $4/t (real October 2010)

Tariff Payable – Below Railway:

The below Railway tariff is represented as follows:

$$AHT_{sd} = (CC_{sd} \times IA) - AHR_{sd} + UC_{sd} + SC_{sd}$$

Where:

- AHT_{sd} is the Access Holder Tariff for the Railway Service s to apply during the year for the track length d;
- CC_{sd} is the capital charge (in real terms) for the Railway Service s and track length d;
- IA is the inflation adjustment factor applied to the capital charge (CCsd) to escalate the capital charge from the effective price level date to the revised price level date consistent with the date that AHTsd is being calculated;
- AHR_{sd} is the notional charge (in real terms) for the Railway Service s and track length d;
- UC_{sd} is the usage charge for the Railway Service s to apply during the year for the track length d; and
- SC_{sd} is the State Charge for the Railway Service s to apply during the year for the track length d.

Step 1. Calculate the Access Holder Capacity measured in gross tonne kilometres

The capacity is measured in gross tonne kilometres and is represented by:

$$Capacity\ (gt.km) = (GCW + TCW) \times J \times d$$

Where:

- GCW = Gross consist weight;
- TCW = Tare consist weight;
- J = Number of round trip journeys in the annum; and
- d = distance between nodes A and E.

And J is calculated as follows:

J = Production volume / (gross consist weight – tare consist weight)
= 37.45Mtpa / (27,000t – 7,000t)
= 1,872.5 journeys per annum

On an annual basis, this is represented by:

Capacity (gt.km) = (27,000t + 7,000t) x 1,872.5 journeys per annum x 350km = 22,283 x 10^6 gt.km

Step 2. Escalate the mass distance component of the Capital Charge

Using the real below Railway infrastructure capital charge of $0.00659/gt.km this equates to a nominal charge of $0.00827/gt.km in 2019 and is equivalent to a charge of $184.4m on an annual nominal basis in 2019.

$$\mathrm{CC}_{s,d} = 22{,}283\ \mathrm{gt.km} \times \$0.00827/\mathrm{gt.km} = \$184.4\mathrm{m}$$

Step 3. Calculate the notional below Railway capital charge

Using the formula as set out in Article 3.7(a) determine the capital charge for the use of the below Railway infrastructure for the provision of the Railway Service over the track section between nodes A and E.

$$CC_{s,d} = \frac{\sum_{t=1}^{n}\left(RET_{s,t,d} + DEP_{s,d,t}\right) \times (1+WACC)^{-t}}{\sum_{t=1}^{n} T_{s,d,t} \times (1+WACC)^{-t}}$$

The numerator can be separated into the return component and the depreciation component as follows:

$$CC_{s,d} = \frac{\sum_{t=1}^{n} RET_{s,t,d} \times (1+WACC)^{-t} + \sum_{t=1}^{n} DEP_{s,d,t} \times (1+WACC)^{-t}}{\sum_{t=1}^{n} T_{s,d,t} \times (1+WACC)^{-t}}$$

The above formula can be simply restated as follows:

$$CC_{s,d} = (PV\ of\ Return\ On\ Capital + PV\ of\ Return\ Of\ Capital) / PV\ of\ Capacity$$

Therefore, $CC_{s,d}$ is determined based on three components

1. PV of return on capital;
2. PV of return of capital; and
3. PV of the capacity.

- Applying the above parameters, this equates to a nominal notional charge of $0.00108/gt.km or $24.1m annually in 2019.

- Using the results of Step 2 and Step 3, this equates to a net capital charge of $0.00719/gt.km or $160.3m on a nominal, annual basis in 2019.

Step 4. Escalate the components of the Capital Charge

Using the real below Railway infrastructure fixed capital charge of $32.201/return journey this equates to a nominal charge of $40,463/J in 2019. This implies a charge of $75.8m on an annual basis.

This gives a total annual capital charge of $236.1m on a nominal, annual basis in 2019 as shown in the table below.

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8
Nominal Charges	Mass Distance Capital Charge	Mass Distance Capital Charge Offset	Net Mass Distance Capital Charge	Mass Distance Annual Charge	Fixed Capital Charge	Fixed Annual Capital Charge	Total Annual Capital Charge
Year	$/gt.km	$/gt.km	$/gt.km	$m	$/J	$m	$m
2019	0.00827	0.00108	0.00719	160.30	40,463.3	75.8	236.1
2020	0.00848	0.00111	0.00737	164.31	41,474.9	77.7	242.0
2021	0.00869	0.00114	0.00756	168.42	42,511.8	79.6	248.0
2022	0.00891	0.00116	0.00775	172.63	43,574.6	81.6	254.2
2023	0.00913	0.00119	0.00794	176.95	44,663.9	83.6	260.6
2024	0.00936	0.00122	0.00814	181.37	45,780.5	85.7	267.1
2025	0.00960	0.00125	0.00834	185.90	46,925.0	87.9	273.8
2026	0.00984	0.00128	0.00855	190.55	48,098.2	90.1	280.6
2027	0.01008	0.00132	0.00877	195.31	49,300.6	92.3	287.6
2028	0.01033	0.00135	0.00898	200.20	50,533.1	94.6	294.8
2029	0.01059	0.00138	0.00921	205.20	51,796.5	97.0	302.2
2030	0.01086	0.00142	0.00944	210.33	53,091.4	99.4	309.7
2031	0.01113	0.00145	0.00968	215.59	54,418.7	101.9	317.5
2032	0.01141	0.00149	0.00992	220.98	55,779.1	104.4	325.4
2033	0.01169	0.00153	0.01017	226.51	57,173.6	107.1	333.6
2034	0.01198	0.00157	0.01042	232.17	58,602.9	109.7	341.9
2035	0.01228	0.00160	0.01068	237.97	60,068.0	112.5	350.4
2036	0.01259	0.00164	0.01095	243.92	61,569.7	115.3	359.2
2037	0.01291	0.00169	0.01122	250.02	63,109.0	118.2	368.2
2038	0.01323	0.00173	0.01150	256.27	64,686.7	121.1	377.4

Step 5. Calculate the Usage Charge

- Operating costs will be passed through to XYZ Co on a cost plus 12% rate which forms the usage charge.

  This results in a nominal usage charge of $5.03/t or $187.4m per annum for XYZ Co.

Step 6. Calculate the Access Holder Tariff

- At the rate of 37.45Mtpa on an annual, nominal basis in 2019, this equates to:

$$AHT_{sd} = \$236.1\text{m} + \$187.4 + SC_{sd}$$

$$= \$423.5\text{m} + SC_{sd}$$

$$Or\ \$12.1/dmt\ equivalent\ + SC_{sd}$$

Appendix 1

Additional Access Holders

(a) Where there are multiple Access Holders of the Expansion Capacity of the Railway and those Access Holders gain access at differing times during the term of the Railway Concession then any subsequent Access Holder to the first Access Holder to the Expansion Capacity of the Railway will pay an Access Holder Tariff comprising:

(i) the base charge referred to in Article 4.5;

(ii) less a notional capital charge for the cost of the first Access Holder having to fund the Expansion Capital Costs. The calculation of the notional capital charge is the sum of:

(A) the Expansion Capital Cost incurred by the first Access Holder as adjusted for WACC and depreciation; and

(B) multiplied by the proportion of the Expansion Capacity created by the first Access Holder that is to be utilised by the subsequent Access Holder,

and the product of paragraphs (a)(ii)(A) and (B) is to be multiplied by the number of wet tonnes of the subsequent Access Holder ore which at the date of calculation is the expected reserves of the mine in order to determine the per wet tonne charge;

(iii) a usage charge for actual use of the Railway infrastructure to cover the Fixed Operating Costs and Variable Operating Costs; and

(iv) a State Charge for granting the Railway Services to the Access Holder in the territory of the State.

(b) The first Access Holder is entitled to recover from subsequent Access Holder an upfront lump sum payment in the amount calculated by operation of paragraphs (a)(ii)(A) and (B) in return for the subsequent Access Holder being entitled to utilise all or part of the unused Expansion Capacity.

(c) The lump sum amount referred to in paragraph (a)(ii) is to be calculated as follows:

Amount = (Investment x (WACC uplift factor) – Depreciation) x Usage/Capacity

(d) Where a subsequent Access Holder has an obligation to pay a notional capital charge as referred to in paragraph (b) then it is a condition precedent to being provided with a Railway Service that the subsequent Access Holder makes payment in full to the first Access Holder.

Framework for Tariff for Mineral Terminal Services

1 Definitions

Terms and expressions used in this Framework shall have the same meaning as in the Convention unless the contrary intention appears:

Access Holder means a party that has entered into a Mineral Terminal Agreement with the Mineral Terminal Project Company in respect of being provided with the Mineral Terminal Services to be provided in an Expansion Stage, which party may be the Mine Project Company, an Affiliate, Congo Iron or a Third Party.

Expansion Capital Cost means the total of all direct and indirect costs incurred by or on behalf of an Access Holder for the purposes of an Expansion Stage, being costs incurred in developing the following assets:

(a) such assets as are required for the purposes of upgrading the Mineral Terminal in order to:

(i) provide Mineral Terminal Services to that Access Holder; and

(ii) maintain the capacity of the Mineral Terminal for the Initial Capacity Users or any other Access Holder that may have entered into a Mineral Terminal Services Agreement and incurred Expansion Capital Costs; and

(b) such assets comprising the Mineral Terminal as are for the purposes of integrating the existing and new assets into the Mineral Terminal.

Fixed Operating Costs means all direct and indirect costs incurred by or on behalf of the Mineral Terminal Project Company in operating the Mineral Terminal, other than the Variable Operating Costs.

Initial Capacity User means either the Mine Project Company or Congo Iron as a party to a Mineral Terminal Agreement with respect to the Initial Capacity of the Mineral Terminal.

Initial Capital Cost means the total of all direct and indirect costs incurred by or on behalf of the Mineral Terminal Project Company in developing the Initial Capacity of the Mineral Terminal including costs incurred before the Date of Entry into Force.

Mineral Terminal Services means the loading and unloading services utilising both the materials handling and marine services infrastructure which the Mineral Terminal Project Company has contracted to provide to a User.

OBV means the opening balance value of an asset.

PV means present value.

State means the Republic of Cameroon.

State Charge means the charge referred to in Article 4.6.

System Efficiency means the capacity of Mineral Terminal which is being achieved or which should be achieved if fully utilised prior to the Access Holder being provided with a Mineral Terminal Service.

Tariff means the change per unit of Mineral Terminal Service under Article 2 for the Mineral Terminal Project Company providing Mineral Terminal Services.

User means either an Initial Capacity User or an Access Holder.

Variable Operating Costs means the following direct and indirect costs incurred by or on behalf of the Mineral Terminal Project Company in operating the Mineral Terminal, including port management (labour and on-costs) and operational tasks, structures maintenance and maintenance dredging, and pilotage.

WACC means the weighted average cost of capital.

2 Payment obligation

(a) During the term of the Mineral Terminal Agreement, the Mine Project Company must pay the Mineral Terminal Project Company the Tariff on a monthly basis, as calculated in accordance with Article 3 and otherwise in accordance with the terms of the Mineral Terminal Agreement.

(b) During the term of the Congo Mineral Terminal Agreement, Congo Iron must pay the Mineral Terminal Project Company the Tariff on a monthly basis, as calculated in accordance with Article 3 and otherwise in accordance with the terms of the Congo Mineral Terminal Agreement.

(c) During the term of a Mineral Terminal Agreement with the Access Holder, that Access Holder must pay the Mineral Terminal Project Company the Tariff on a monthly basis, as calculated in accordance with Article 4 and otherwise in accordance with the terms of the Mineral Terminal Agreement with that Access Holder.

3 Tariff payable by Mine Project Company and Congo Iron for the Initial Capacity

3.1 Two part tariff structure

(a) The Tariff payable by Mine Project Company and Congo Iron for the Initial Capacity of the Mineral Terminal is based on a two part tariff structure. The two part tariff proposes that the Initial Capacity User pays a fee to use any amount of the Mineral Terminal Services provided using the Mineral Terminal and a charge per unit of the Mineral Terminal Service actually used which does not vary with the level of usage.

(b) The two part tariff comprises of:

(i) a capital charge for forecast capacity of the Mineral Terminal infrastructure to cover capital costs associated with the Initial Capacity; and

(ii) a usage charge for the actual use of the Mineral Terminal infrastructure to cover the Fixed Operating Costs and Variable Operating Costs

3.2 Capital charge

(a) The capital charge for any tariff will consist of a return on capital and return of capital, where:

(i) the capital charge component is calculated using an annuity formula on the share of capital costs attributable to an Initial Capacity User;

(ii) the return on capital is determined with reference to a WACC; and

(iii) the return of capital is determined with reference to a capital payback period.

(b) During the Construction Phase and Project Commissioning, the return on capital element is to be calculated and capitalised (added to the asset base). The interest rate applied to the capital balance during the Construction Phase is to be equal to the tariff WACC.

(c) Return of capital to be depreciated using the straight line method for assets with a useful life less than the remaining life of the Mineral Terminal Concession. Assets with useful lives longer than the remaining life of the Mineral Terminal Concession (other than assets acquired using sustaining capital in the last 5 years of the life of the Mineral Terminal Concession) are to be depreciated using the units of production method to ensure that all capital is depreciated over the life of the Mineral Terminal Concession.

(d) The WACC is to be based on a real, pre-tax basis in US currency or other currency equivalent.

3.3 Single price path

(a) The capital charge component for the Mineral Terminal Services is subject to Article 3.3(c), determined over a single interval equal to the duration of the Mineral Terminal Concession.

(b) The interval is known as the building block horizon and establishes the period over which revenues (and hence charges) are calculated to meet the costs calculated via the building blocks (not the overall cost of investments).

(c) Price revisions will occur (and building block horizons will be adjusted) when external economic events occur (such as changes to the risk free rate, cost of debt or market risk premium) or unplanned capital expansion is incurred (threshold levels to be determined). Where the charges are revised the capital value of the investment should be adjusted for any new investment in the Mineral Terminal infrastructure.

(d) Where capital is invested to provide Mineral Terminal Services for different products, or where the handling characteristics of an Initial Capacity User's product is such that they require a disproportionate usage of the capacity then the total cost to be recovered, via the capital cost component, is to be allocated equitably to distribute the capital value of dedicated facilities or capital value based on the effective use of the capacity in the provision of the Mineral Terminal Service.

(e) At the end of each service year, the capital charge for that year is to be determined by reference to actual product tonnes handled against projected product tonnes handled for the Mineral Terminal Service and an adjustment is to be made. To the extent that the total actual product tonnes handled of the Initial Capacity Users are less than the Initial Capacity then each shall pay a proportionate share of the capital charge attached to the shortfall.

3.4 Allocation of the capital charge

Services

The capital charge is to comprise of the following Mineral Terminal Services:

(a) provision of materials handling infrastructure measured in terms of product tonnes handled. Materials handling includes in-loading circuit, out-loading circuit, berth and loading platforms, dredged channel and dredge disposal, trestle jetty, berthing

and mooring equipment, navigational aids, and other associated capital and sustaining capital expenditure,

(b) provision of marine service infrastructure measure in terms of annual time periods. Marine Service infrastructure includes marine offloading facility, freight and materials handling infrastructure, and other associated capital and sustaining capital expenditure; and

(c) provision of any other service (to be determined) that is associated with use of an asset that is not contemplated in Articles 3.4(a) or 3.4(b).

3.5 Determining the return of capital (depreciation)

(a) The assets which are to comprise the Mineral Terminal infrastructure are all long lived assets.

(b) In determining the depreciation rate consideration is given to the asset lives of each major component of Mineral Terminal infrastructure. Generally the depreciation rate is determined by the shorter of the economic life of the mine served by the Mineral Terminal infrastructure, the technical life of the Mineral Terminal infrastructure or the term of the Mineral Terminal Concession. In assessing the life of the Project served by the Mineral Terminal infrastructure assets, consideration should also be paid to the term of the Mineral Terminal Services Agreement entered into by the parties.

3.6 Return on and return of capital

(a) The capital charge for the Mineral Terminal Services is to be determined from the following:

(i) the return on the capital value of the Mineral Terminal infrastructure at the beginning of each period and is to be calculated by applying a real rate of return to the capital value of the Mineral Terminal infrastructure at the beginning of each year; and

(ii) the return of capital calculated as depreciation on the capital value of the Mineral Terminal infrastructure.

(b) At the beginning of the first year for which the capital charges for Mineral Terminal Services are to be determined, the capital value of the Mineral Terminal infrastructure is to be the total capital cost of developing the Mineral Terminal infrastructure (including inloading circuit, outloading circuit, berth and loading platforms, dredged channel and dredge disposal, trestle jetty, MOF harbour, berthing and mooring equipment, navigational aids, camps, contractor indirects, engineering and working capital costs such as capitalised interest.)

(c) At the beginning of each subsequent period the capital value of the Mineral Terminal infrastructure is:

$$C_t = C_{t-1} + Capex_{t-1} - DEP_{t-1}$$

Where:

- C_t is the capital value of the Mineral Terminal infrastructure at the beginning of year t;
- C_{t-1} is the capital value of the Mineral Terminal infrastructure at the beginning of the year t-1;

- $Capex_{t-1}$ is any new investment in Mineral Terminal infrastructure during the year t-1; and

- DEP_{t-1} is the depreciation in year t-1 on the capital value of the Mineral Terminal infrastructure.

(d) Using this notion the return on capital in year t is to be the product of the real rate of return and the capital value of the Mineral Terminal infrastructure at the beginning of year t, such that:

$RET_t = C_t \times WACC_t$

Where:

- RET_t is the return on the capital for the Mineral Terminal infrastructure during year t;

- C_t is the capital value of the Mineral Terminal infrastructure at the beginning of the year t; and

- $WACC_t$ is the real rate of return applicable during the period of 25 years for which the capital charges are determined. The real WACC is discussed in Article 3.8.

(e) The return of capital, that is the depreciation on the capital value of the Mineral Terminal infrastructure, is to be calculated on the following basis:

(i) over the asset's useful life for those assets with useful lives of less than the life of the Mineral Terminal Concession;

(ii) assets with useful lives longer than the remaining life of the Mineral Terminal are to be depreciated using the units of production method to ensure that all capital it depreciated over the life of the mine; and

(iii) any sustaining capital incurred within 5 years of the end of the Mineral Terminal is to be depreciated in accordance with the economic life of the asset and any amount not depreciated at the end of the Mineral Terminal Concession shall be paid to the Mineral Terminal Project Company by the State.

3.7 Determining the Capital Charge

(a) The capital charge for the Mineral Terminal Service is calculated as:

$$CC_s = \frac{\sum_{t=1}^{n}\left(RET_{s,t} + DEP_{s,t}\right) \times (1 + WACC)^{-t}}{\sum_{t=1}^{n} T_{s,t} \; x \; (1 + WACC)^{-t}}$$

Where:

- CC_s is the capital charge (in real terms, at the commencement of the period) for the Mineral Terminal Service s;

- $RET_{s,t}$ is that part of the forecast return on the capital value of the Mineral Terminal infrastructure allocated to the Mineral Terminal Service s at the beginning of year t;

- DEP_s is that part of the forecast depreciation in year t on the capital value of the Mineral Terminal infrastructure allocated to the Mineral Terminal Service s;

- $T_{s,t}$ is the nominated capacity in the Mineral Terminal infrastructure available for provision of the Mineral Terminal Service s in year t where nominated capacity is measured in product tonnes handled by the materials handling infrastructure and annual time period for the marine services;
- s designates the Mineral Terminal Service; and
- t = 1, 2, ...n designates a year during the period of 25 years for which the capital charges for the Mineral Terminal Service are determined.

(b) The usage charge for the Mineral Terminal Services is to be calculated from the cost of operating and maintaining the Mineral Terminal infrastructure.

3.8 Determining Usage Charges

(a) The usage charge is to comprise of the following Mineral Terminal Services:

(i) provision of unloading, blending and loading of iron ore from the mine site at the Mineral Terminal and general maintenance of the system; and

(ii) provision of freight unloading at the Mineral Terminal.

(b) The usage charges for the Mineral Terminal Services are to be calculated from the cost of operating and maintaining the Mineral Terminal infrastructure.

(c) The Mineral Terminal Project Company will recover any revenue shortfall (or repay any over recovery) at the end of each year.

(d) The allocation is to be based on the projected product tonnes handled by the Mineral Terminal infrastructure.

(e) At the commencement of each year the usage charge (not including any end of year recovery or repayment) for the Mineral Terminal Service is to be calculated as:

$$UC_s = (EVC_s + EFC_s) / Q_s \times (1+ UCM)$$

Where:

- UC_{sd} is the usage charge for Mineral Terminal Service s to apply during the year;
- EVC_s is that part of the estimated Variable Operating Cost of operating and maintaining the Mineral Terminal infrastructure during the year which is allocated to the Mineral Terminal Service s;
- Q_s is the forecast total quantity measured in product tonnes handled in respect of the Mineral Terminal Services is to be provided during the year;
- EFC_s is that part of the estimated Fixed Operating Cost of operating and maintaining the Mineral Terminal infrastructure during the year which is allocated to Mineral Terminal Service s; and
- UCM is the operating margin of 12% to be applied to the usage charge to be charged by the Mineral Terminal Project Company.

(f) The Fixed Operating Cost component of estimated costs for a tariff represents that portion of the operating and maintenance costs (both direct and indirect) incurred

in providing the Mineral Terminal Services that do not vary, irrespective of the users' utilisation of the Mineral Terminal Services, including a margin.

(g) The Variable Operating Cost component of operating costs for a tariff represents that portion of the operating and maintenance costs (both direct and indirect) incurred in providing the Mineral Terminal Service that varies depending upon the users' utilisation of the Mineral Terminal Service, including a margin.

3.9 Annual indexation

To accommodate increases in factor costs, capital investment plans and operating model changes, the charge should be adjusted periodically (preferably annually). The charges should be adjusted annually based on the consumer price index applicable in the United States of America unless otherwise agreed.

3.10 Determining the rate of return

(a) Cost of capital is the rate of return required by investors for financing a project which is similar to the Project. For a project that is financed with a combination of equity and debt, the cost of capital is the WACC required by equity holders and the debt holders in the capital market, known as WACC.

$$WACC = \frac{E}{V} \times Ke + \frac{D}{V} \times Kd$$

$where:$

$\frac{E}{V} is\ the\ proportion\ of\ equity\ in\ the\ total\ financing\ of\ the\ project$

$Ke\ is\ the\ nominal\ cost\ of\ equity$

$\frac{D}{V} is\ the\ proportion\ of\ debt\ in\ the\ total\ financing\ of\ the\ project$

$Kd\ is\ the\ nominal\ cost\ of\ debt$

(b) The WACC can be expressed in either post-tax or pre-tax terms. The nominal post-tax WACC is:

$$WACC_{\text{nominal post-tax}} = \frac{E}{V} \times Ke + \frac{D}{V} \times Kd \times (1 - Tax)$$

(c) As the proposed pricing method uses real pre-tax WACC, the nominal post-tax WACC would need to be converted to real pre-tax WACC using the forward transformation method.

(d) First, the nominal pre-tax WACC is obtained by adjusting the tax impact:

$$WACC_{\text{nominal pre-tax}} = \frac{E}{V} \times \frac{Cost\ of\ Equity}{(1 - Tax)} + \frac{D}{V} \times Cost\ of\ Debt$$

(e) Then, the nominal post-tax WACC is adjusted for expected inflation, using the Fisher equation, to provide a real pre-tax WACC:

$$WACC_{\text{real pre-tax}} = \frac{(1 + WACC_{\text{nominal pre-tax}})}{(1 + Expected\ Inflation)} - 1$$

(f) Determining the cost of equity (Ke): Capital Asset Pricing Model (CAPM) is the most widely accepted method for estimating cost of equity. The rate of return required by equity investors on a risk asset is the sum of the risk free rate of return and a risk premium as the product of the excess return on a well-diversified market portfolio of risky asset and the "beta" of the risky asset.

$$Ke = R_f + \beta_e \times (R_m - R_f)$$

Where:

- R_f is the risk free rate of return;
- $(R_m - R_f)$ is the market risk premium; and
- β_e is the equity beta, a normalised measure of the covariance between the return of the risky asset and the return on a well-diversified market portfolio of risky assets.

(g) Determining the cost of debt: The cost of debt is the rate of return required by debt holder for a risky asset.

$$K_d = R_f + Debt\ Risk\ Premium + Debt\ Issuing\ Cost$$

(h) Theoretically, the debt risk premium can be calculated from the CAPM equation with the debt "Beta" applied. However, in practice, market practitioners commonly use the observed yield of issued debt securities with same credit rating to estimate the debt risk premium.

(i) Regulators also recognise the cost of issuing debt, therefore, a margin is provided to recover the cost of obtaining a credit rating, legal fees and underwriting expenses.

(j) Parameters for WACC calculation:

(i) Risk free rate (R_f): This parameter cannot be measured directly, therefore it has to be theoretically constructed. The Australian approach is to measure the most recent 20 trading days' average yield on Australian Government bonds with 10 years to maturity. An equivalent international proxy may be the US bond market of similar maturity.

(ii) Market Risk Premium (R_m): This parameter cannot be observed directly, therefore it has to be estimated using econometric methods.

(iii) Capital Structure: The capital structure usually follows market practice as evidence in decisions by regulators.

(iv) Debt Margin and Debt Issuing Cost: The parameter is calculated with reference to the current debt margin observed in the market for the entities with BBB+ credit ratings. The cost of raising capital is measured by debt financing fees for the Project.

(v) Expected Inflation: Expected inflation rates can be calculated with reference to the difference between nominal and indexed US Government bond yields using the Fisher equation.

(vi) Tax: 25% corporate tax rate.

4 Tariff payable by Access Holder for Expansion Stage

4.1 Access Holder Tariff

The Tariff payable by the Access Holder is comprised of the following elements:

(a) a capital charge for forecast capacity on that portion of the Mineral Terminal which is being used to provide the Access Holder with the Mineral Terminal Services, which charge is to be calculated on the same principals and capital costs as the charge for the Initial Capacity Users;

(b) less a notional charge for the Access Holder's investment in the upgrade of the Mineral Terminal in order to provide the Expansion Capacity but does not include capital expended in order to maintain System Efficiency;

(c) a usage charge for actual use of the Mineral Terminal infrastructure to cover the Fixed Operating Costs and Variable Operating Costs; and

(d) a State Charge for granting the right to use the Mineral Terminal Services to the Access Holder in the territory of the State.

4.2 Capital Charge

The capital charge for the Access Holder is the same capital charge for the Initial Capacity as payable by the Initial Capacity Users for the Mineral Terminal Services being used by the Access Holder.

4.3 Notional Charge

(a) The notional charge is designed to compensate the Access Holder's Expansion Capital Costs in the common use Mineral Terminal infrastructure.

(b) The notional charge is to be calculated such that it mirrors the same provisions as the capital charge as set out in Article 3 above.

(c) In calculating the notional charge the following applies:

(i) the WACC remains unchanged;

(ii) the capital value is the amount invested by the Access Holder;

(iii) the depreciation is based on the Access Holder's life of mine at the time of its decision to provide the expansion capital;

(iv) the return on capital is based on the Expansion Capital Cost and the WACC; and

(v) the Access Holder's forecast capacity in the Mineral Terminal infrastructure.

4.4 Usage Charge

The usage charge for the Access Holder is the same as the usage charge as payable by the Initial Capacity Users for the Mineral Terminal Services used by the Access Holder.

4.5 Base Charge

(a) The base charge is to be included in the Tariff and is payable by the Access Holder where the capital charge less the notional charge is a positive number. This base charge is to shared [50%] Cam Iron [50%] the State.

(b) If after calculating the base charge the amount is negative i.e. it is greater than the capital charge calculated in accordance with Article 4.1(a) then for the purposes of the Tariff payable by the Access Holder, the base charge will be zero.

4.6 State Charge

The State Charge represents an amount being charged by the State, which amount shall not be unreasonable in all the circumstances, having regard, amongst other things to the development and operation of an internationally competitive iron ore industry in and about the territory of the State and collected by the Mineral Terminal Project Company for allowing the Mineral Terminal Project Company to provide Mineral Terminal loading and unloading services to the Access Holder.

4.7 Tariff Payable

At the commencement of each period the Tariff for the Mineral Terminal Service will be calculated as:

$AHT_s = (CC_s \times IA) - AHR_s + UC_s + SC_s$

Where:

- AHT_s is the Access Holder Tariff for the Mineral Terminal Service s to apply during the year;
- CC_s is the capital charge (in real terms) for Mineral Terminal Service s;
- IA is the inflation adjustment factor applied to the capital charge (CC_s) to escalate the capital charge from the effective price level date to the revised price level date consistent with the date that AHT_s is being calculated;
- AHR_s is the notional charge (in real terms) for the Mineral Terminal Service s;
- UC_s is the usage charge for the Mineral Terminal Service s to apply during the year; and
- SC_s is the State Charge for the Mineral Terminal Service s to apply during the year.

4.8 Efficiency Provisions

(a) Expansion Capital must provide the same or greater levels of operating efficiency and latent capacity as the Initial Capacity Users realised in undertaking the initial investment.

(b) Each Access Holder to the Mineral Terminal must:

(i) ensure disruptions to existing operations are minimised throughout the Construction Phase. Each successive Access Holder must communicate all planned disruptions to the Initial Capacity Users and liquidated damages may result in the event this does not occur or where the length of the actual disruption is greater than the period of the planned disruption; and

(ii) hold harmless each Initial Capacity User and any preceding Access Holder against any incurrence in either Fixed Operating Costs or Variable Operating Costs arising as a consequence of that Access Holder being provided with Mineral Terminal Services.

5 Illustrative Worked Examples

5.1 Worked examples of Tariff and Expansion Tariffs

(a) The following case studies illustrate the application of the various charges with regard to an Access Holder's access to the Mineral Terminal Services.

(b) The figures are for illustration purposes only and are not representative of actual capital or operating cost estimates.

5.2 Worked Example 1 – Mineral Terminal Unloading Charge

5.3 General Assumptions

(a) Mineral Terminal unloading capital costs are US$132m

(b) The asset life for all Mineral Terminal assets is 25 years

(c) WACC is 10% (Real, Pre-Tax)

(d) The dry tonnes stockpiled are 35Mtpa (excluding moisture)

(e) Moisture content is 7% resulting in total production of 37.5mtpa

(f) The Construction Phase is 3 years

(g) The Exploitation Phase is 25 years

(h) The total project life is 28 years

(i) Capitalised interest applies during the Construction Phase

(j) Capex is assumed to be fully depreciated over the Exploitation Phase

(k) No sustaining capital is assumed

(l) Capital charge is calculated in real terms

Step 1. Apply the Capital Charge Methodology

Using the formula as set out in Article 3.5(a) determine the capital charge for the unloading and loading of the Mineral Terminal Service.

$$CC_s = \frac{\sum_{t=1}^{n}(RET_{s,t} + DEP_{s,t}) \times (1 + WACC)^{-t}}{\sum_{t=1}^{n} T_{s,t} \times (1 + WACC)^{-t}}$$

The numerator can be separated into the return component and the depreciation component as follows:

$$CC_s = \frac{\sum_{t=1}^{n} RET_{s,t}t \times (1 + WACC)^{-t} + \sum_{t=1}^{n} DEP_{s,t} \times (1 + WACC)^{-t}}{\sum_{t=1}^{n} T_{s,t} \times (1 + WACC)^{-t}}$$

The above formula can be simply restated as follows:

$$CC_s = \frac{\text{PV of Return On Capital} + \text{PV of Return Of Capital}}{\text{PV of Capacity}}$$

Therefore, CC_s is determined based on three components:

4. PV of return on capital (refer Step 2);
5. PV of return of capital (refer Step 3); and
6. PV of the capacity (refer Step 4).

Step 2. Calculate the Return On Capital

The calculation of the return on capital requires the sub-component calculations of the OBV during the Construction Phase and OBV during the Exploitation Phase before finally calculating the PV of the return on capital.

Step 2a. Calculate the OBV

$OBV_{s,t}$ is the opening balance value of the asset at period t.

OBV calculation is different between the Construction Phase and the Exploitation Period.

OBV during the Construction Phase

- OBV is adjusted for new capital expenditure and capitalised interest (the return on capital earned during the Construction Phase)

$$OBV_{s,t} = OBV_{s,t-1} + Capitalised\ Interest_{t-1} + New\ Capex_{t-1}$$

$$= OBV_{s,t-1} + OBV_{s,t-1} \times WACC + New\ Capex_{t-1}$$
$$= OBV_{s,t-1} \times (1 + WACC) + New\ Capex_{t-1}$$

- Therefore, at the completion of the Construction Phase or the commencement of the Exploitation Phase at year 4

$$OBV_{s,4} = \sum_{t=1}^{t=3} Annual\ capex \times (1 + WACC)^n$$
$$= (\$31.7\ m \times 1.1 + \$42.6\ m \times 1.1^2 + \$57.0\ m \times 1.1^3)$$
$$= \$142.2\ m$$

- The total of $142.2m represents the $131.3m in capital expenditure and $10.9m of capitalised interest.

- Column 2 of Table 1 (below) illustrates the OBV over the periods 1 through 3 in the Construction Phase.

OBV during the Exploitation Phase

- $OBV_{s,t}$ does not incur capitalised interest, however, it should be adjusted by any new capital expenditure and depreciation:

$$OBV_{s,t} = OBV_{s,t-1} + New\ Capex_{t-1} + Deprecation_{t-1}$$

- Column 2 of Table 1 illustrates the OBV over the periods 4 through to 28 of the Exploitation Phase.

Step 2b. Calculate the PV of Return On Capital

- The interest during Construction Phase is capitalised into the $OBV_{s,4}$ which is recovered via return of capital during the Exploitation Phase. Therefore, the PV of return on capital will only include return on capital during Construction Phase.

$$PV\ (Return\ on\ Capital) = \sum_{t=4}^{t=28} RET_{s,t} \times (1 + WACC)^{-t}$$

$$= \sum_{t=4}^{t=28} OBV_{s,t} \times WACC \times (1 + WACC)^{-t}$$

$$= OBV_{s,4} \times WACC \times (1 + WACC)^{-4} + \sum_{t=5}^{t=28}\left(OBV_{s,t-1} + Capex_{t-1} - DEP_{s,t-1}\right) \times WACC \times (1 + WACC)^{-t}$$

$$= \$142.2m \times 10\% \times 1.1^{-4} + (\$136.5\ m + \$0m - \$5.7m) \times 10\% \times 1.1^{-5} + \cdots + (\$11.4m + \$0m - \$5.7m) \times 10\% \times 1.1^{-28}$$

$$= \$90.6\ m$$

- Column 7 of Table 1 below illustrates the return on capital through the Construction Phase and the Exploitation Phase.

Step 3. Calculate the PV of Return Of Capital
Step 3a. Calculate the periodic depreciation

The annual depreciation $DEP_{s,t}$ is calculated below:

$$DEP_{s,t} = \frac{OBV_{s,4}}{Operational\ life}$$

$$= \frac{\$142.2m}{25\ years}$$

$$= \$5.7\ m/annum$$

- $OBV_{s,4}$ is the opening balance value of the asset at the commencement of the Exploitation Phase.

Step 3b. Calculate the PV of the Return Of Capital

$$PV\ (Return\ of\ Capital) = \sum_{t=4}^{t=28} DEP_{s,t} \times (1 + WACC)^{-t}$$

$$= \$5.7m \times 1.1^{-4} + \$5.7m \times 1.1^{-5} + \cdots + \$5.7m \times 1.1^{-28} = \$51.6\text{m}$$

- Column 8 of table 1 below illustrates the return of capital.

Step 4. Calculate the PV of the Capacity

The capacity volume is measured in product tonnes handled and is represented by:

$$PV\ (Product\ Tonnes\ Handled) = \sum_{t=1}^{n} T_{s,t} \times (1 + WACC)^{-t}$$

$$= 34.2mt \times 1.1^{-4} + 37.45mt \times 1.1^{-5} + \cdots + 37.45mt \times 1.1^{-28} = 337.0mt$$

- Colum 9 of Table 1 illustrates the capacity measured in product tonnes handled figures during the Exploitation Phase.

Step 5. Calculate the Capital Charge

The capital charge in real terms is represented by:

$$CC_s = \frac{(\text{PV of Return on Capital} + \text{PV of Return of Capital})}{\text{PV of Product Tonnes Handled}}$$

Therefore, the capital charge measured over the life of the Project is:

$CC_s = (\$90.6\text{m} + \$51.6\text{m}) / 337.0\text{mt}$

$= \$0.42/\text{t}$

On an annual basis this equates to:

$CC_s = \$0.42/t \times 37.45mt$

$= \$15.8m \text{ per annum or } \$0.45/dmt \text{ equivalent}$

Table 1 – Calculation detail for worked example 1

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9
Year	OBV	Capex	Capitalised Interest	Depreciation	CBV[1]	Return on Capital	Return of Capital	Capacity (Mt)
1	-	31.7	-	-	31.7	-	-	-
2	31.7	42.6	3.2	-	77.4	-	-	-
3	77.4	57.0	7.7	-	142.2	-	-	-
4	142.2	-	-	(5.7)	136.5	14.2	5.7	34.2
5	136.5	-	-	(5.7)	130.8	13.7	5.7	37.5
6	130.8	-	-	(5.7)	125.1	13.1	5.7	37.5
7	125.1	-	-	(5.7)	119.5	12.5	5.7	37.5
8	119.5	-	-	(5.7)	113.8	11.9	5.7	37.5
9	113.8	-	-	(5.7)	108.1	11.4	5.7	37.4
10	108.1	-	-	(5.7)	102.4	10.8	5.7	37.4
11	102.4	-	-	(5.7)	96.7	10.2	5.7	37.5
12	96.7	-	-	(5.7)	91.0	9.7	5.7	37.5
13	91.0	-	-	(5.7)	85.3	9.1	5.7	
14	85.3	-	-	(5.7)	79.6	8.5	5.7	
15	79.6	-	-	(5.7)	73.9	8.0	5.7	37.5
16	73.9	-	-	(5.7)	68.3	7.4	5.7	37.5
17	68.3	-	-	(5.7)	62.6	6.8	5.7	37.5
18	62.6	-	-	(5.7)	56.9	6.3	5.7	37.5
19	56.9	-	-	(5.7)	51.2	5.7	5.7	37.5
20	51.2	-	-	(5.7)	45.5	5.1	5.7	37.5
21	45.5	-	-	(5.7)	39.8	4.6	5.7	37.5
22	39.8	-	-	(5.7)	34.1	4.0	5.7	37.5
23	34.1	-	-	(5.7)	28.4	3.4	5.7	37.5
24	28.4	-	-	(5.7)	22.8	2.8	5.7	37.5
25	22.8	-	-	(5.7)	17.1	2.3	5.7	37.5
26	17.1	-	-	(5.7)	11.4	1.7	5.7	37.5
27	11.4	-	-	(5.7)	5.7	1.1	5.7	37.5
28	5.7	-	-	(5.7)	-	0.6	5.7	37.5
NPV						**90.6**	**51.6**	**337.0**
Tariff ($/t)								**0.42**

Note 1: CBV refers to closing balance value where $CBV_{t-1} = OBV_t$

5.4 Worked Example 2 – Marine Service Charge

5.5 General Assumptions

(a) Marine services capital costs are US$67m

(b) The asset life for all Mineral Terminal assets is 25 years

(c) WACC is 10% (Real, Pre-Tax)

(d) The Construction Phase is 3 years

(e) The Exploitation Phase is 25 years

(f) The total project life is 28 years

(g) Capitalised interest applies during the Construction Phase

(h) Capital expenditure is assumed to be fully depreciated over the Exploitation Phase

(i) No sustaining capital is assumed

(j) Capital charge is calculated in real terms

Step 1. Apply the Capital Charge Methodology

Using the formula as set out in Article 3.5(a) determine the capital charge for marine component of the Mineral Terminal Service.

$$CC_s = \frac{\sum_{t=1}^{n}\left(RET_{s,t} + DEP_{s,t}\right) \times (1 + WACC)^{-t}}{\sum_{t=1}^{n} T_{s,t} \times (1 + WACC)^{-t}}$$

The numerator can be separated into the return component and the depreciation component as follows:

$$CC_s = \frac{\sum_{t=1}^{n} RET_{s,t}t \times (1 + WACC)^{-t} + \sum_{t=1}^{n} DEP_{s,t} \times (1 + WACC)^{-t}}{\sum_{t=1}^{n} T_{s,t} \times (1 + WACC)^{-t}}$$

The above formula can be simply restated as follows:

$$CC_s = \frac{\text{PV of Return On Capital} + \text{PV of Return Of Capital}}{\text{PV of project life}}$$

Therefore, CCs is determined based on three components:

1. PV of return on capital (refer Step 2);
2. PV of return of capital (refer Step 3); and

3. PV of project life (refer Step 4).

Step 2. Calculate the Return On Capital

The calculation of the return on capital requires the sub-component calculations of the OBV during the Construction Phase and OBV during the Exploitation Phase before finally calculating the PV of the return on capital.

Step 2a. Calculate the Opening Balance Value (OBV)

$OBV_{s,t}$ is the opening balance value of the asset at period t.

OBV calculation is different between the Construction Phase and the Exploitation Phase.

OBV during the Construction Phase

- OBV is adjusted for new capital expenditure and capitalised interest (the return on capital earned during the Construction Phase):

$$OBV_{s,t} = OBV_{s,t-1} + Capitalised\ Interest_{t-1} + New\ Capex_{t-1}$$

$$= OBV_{s,t-1} + OBV_{s,t-1} \times WACC + New\ Capex_{t-1}$$
$$= OBV_{s,t-1} \times (1 + WACC) + New\ Capex_{t-1}$$

- Therefore, at the completion of the Construction Phase or the commencement of the Exploitation Phase at year 4:

$$OBV_{s,4} = \sum_{t=1}^{t=4} Annual\ capex\ spending\ \times (1 + WACC)^n$$
$$= (\$16.6\ m \times 1.1 + \$21.8\ m \times 1.1^2\ + \$28.5\ m \times 1.1^3)$$
$$= \$72.5m$$

- The total of $72.5m represents the $66.9m in capital expenditure and $4.8m of capitalised interest.

- Column 2 of Table 2(below) illustrates the OBV over periods 1 through 3 of the Construction Phase.

OBV during the Exploitation Phase

- $OBV_{s,t}$ does not incur capitalised interest, however, it should be adjusted by any new capital expenditure and depreciation:

$$OBV_{s,t} = OBV_{s,t-1} + New\ Capex_{t-1} + Deprecation_{t-1}$$

- Column 2 of Table 2 illustrates the OBV over the periods 4 through to 28 of the Exploitation Phase.

Step 2b. Calculate the PV of Return On Capital

- The interest during the Construction Phase is capitalised into the $OBV_{s,4}$, which is recovered via return of capital during the Exploitation Phase. Therefore, the PV of return on capital will only include return on capital during the Construction Phase.

$$PV\ (Return\ on\ Capital) = \sum_{t=4}^{t=28} RET_{s,t}\ \times\ (1 + WACC)^{-t}$$

$$= \sum_{t=4}^{t=28} OBV_{s,t} \times WACC \times (1 + WACC)^{-t}$$

$$= OBV_{s,4} \times WACC \times (1 + WACC)^{-4} + \sum_{t=4}^{t=28} (OBV_{s,t-1} + Capex_{t-1} - DEP_{s,t-1}) \times WACC \times (1 + WACC)^{-t}$$

$$= \$72.5\,m \times 10\% \times 1.1^{-4} + (\$69.2\,m + \$0\,m - \$2.9m) \times 10\% \times 1.1^{-5} + \cdots + (\$5.8\,m + \$0\,m - \$2.9\,m) \times 10\% \times 1.1^{-28}$$

$$= \$46.2\,m$$

- Column 7 of Table 2 below illustrates the return on capital through the Construction Phase and the Exploitation Phase.

Step 3. Calculate the PV of Return Of Capital
Step 3a. Calculate the periodic depreciation

The annual depreciation $DEP_{s,t}$ is calculated below:

$$DEP_{s,t} = \frac{OBV_{s,4}}{Operational\ life}$$

$$= \frac{\$72.5m}{25\ years}$$

$$= \$2.9\ m/annum$$

- $OBV_{s,4}$ is the opening balance value of the asset at the commencement of the Exploitation Phase.

Step 3b. Calculate the PV of the Return Of Capital

$$PV\ (Return\ of\ Capital) = \sum_{t=4}^{t=28} DEP_{s,t} \times (1 + WACC)^{-t}$$

$$= \$2.9\,m \times 1.1^{-4} + \$2.9m \times 1.1^{-5} + \cdots + \$2.9m \times 1.1^{-28} = \$26.3\ \text{m}$$

- Column 8 of Table 2 below illustrates the return of capital.

Step 4. Calculate the PV of the Project Life measured in years

- *The project life is measured in years.*

$$PV\ (Project\ Life) = \sum_{t=1}^{n} T_{s,t,x}\,(1 + WACC)^{-t}$$

$$= 1 \times 1.1^{-4} + 1 \times 1.1^{-5} + \cdots + 1 \times 1.1^{-28} = 9.1\ years$$

- Colum 9 of Table 1 illustrates the capacity values during the Exploitation Phase

Step 5. Calculate the Capital Charge

The capital charge in real terms is represented by:

$CC_s = (PV\ of\ Return\ on\ Capital + PV\ of\ Return\ of\ Capital)$ / PV of Project Life

Therefore, the capital charge measured over the life of the Project is:

$$CC_s = (\$46.2\text{m} + \$26.3\text{m}) / 9.1 \text{ years}$$

$$= \$8.0\text{m annually}$$

Table 2 – Calculation detail for worked example 2

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9
Year	OBV	Capex	Capitalised Interest	Depreciation	CBV	Return on Capital	Return of Capital	Capacity (Years)
1	-	16.6	-	-	16.6	-	-	-
2	16.6	21.8	1.7	-	40.1	-	-	-
3	40.1	28.5	4.0	-	72.5	-	-	-
4	72.5	-	-	(2.9)	69.6	7.3	2.9	-
5	69.6	-	-	(2.9)	66.7	7.0	2.9	-
6	66.7	-	-	(2.9)	63.8	6.7	2.9	-
7	63.8	-	-	(2.9)	60.9	6.4	2.9	1.0
8	60.9	-	-	(2.9)	58.0	6.1	2.9	1.0
9	58.0	-	-	(2.9)	55.1	5.8	2.9	1.0
10	55.1	-	-	(2.9)	52.2	5.5	2.9	1.0
11	52.2	-	-	(2.9)	49.3	5.2	2.9	1.0
12	49.3	-	-	(2.9)	46.4	4.9	2.9	1.0
13	46.4	-	-	(2.9)	43.5	4.6	2.9	1.0
14	43.5	-	-	(2.9)	40.6	4.4	2.9	1.0
15	40.6	-	-	(2.9)	37.7	4.1	2.9	1.0
16	37.7	-	-	(2.9)	34.8	3.8	2.9	1.0
17	34.8	-	-	(2.9)	31.9	3.5	2.9	1.0
18	31.9	-	-	(2.9)	29.0	3.2	2.9	1.0
19	29.0	-	-	(2.9)	26.1	2.9	2.9	1.0
20	26.1	-	-	(2.9)	23.2	2.6	2.9	1.0
21	23.2	-	-	(2.9)	20.3	2.3	2.9	1.0
22	20.3	-	-	(2.9)	17.4	2.0	2.9	1.0
23	17.4	-	-	(2.9)	14.5	1.7	2.9	1.0
24	14.5	-	-	(2.9)	11.6	1.5	2.9	1.0
25	11.6	-	-	(2.9)	8.7	1.2	2.9	1.0
26	8.7	-	-	(2.9)	5.8	0.9	2.9	1.0
27	5.8	-	-	(2.9)	2.9	0.6	2.9	1.0
28	2.9	-	-	(2.9)	-	0.3	2.9	1.0
NPV						**46.2**	**26.3**	**9.1**
Tariff ($/year)								**8.0**

5.6 Case Study 1 - New Entrant XYZ Co – Mineral Terminal Unloading Charge

(a) XYZ Co will spend $60m on the existing Mineral Terminal unloading facilities

(b) XYZ Co is a third party

(c) XYZ Co first production in 2019 and has a mine life of 20 years

(d) XYZ Co product tonnes handled is 37.5wmtpa

(e) WACC is 10% (Real, Pre-Tax)

(f) The Construction Phase is 2 years

(g) The Exploitation Phase is 20 years

(h) The total project life is 22 years

(i) Capitalised interest applies during the Construction Phase

(j) Capital expenditure is assumed to be fully depreciated over the Exploitation Phase

(k) Operating costs are $2.50/t

Capital Charge – Mineral Terminal Unloading Services:

The tariff charge for the materials handling component of the Mineral Terminal Services is represented as follows

$AHT_s = (CC_s \times IA) - AHR_s + UC_s + SC_s$

Where:

- AHT_s is the Access Holder Tariff for the service s to apply during the year;
- CC_s is the capital charge (in real terms) for the Mineral Terminal Service s;
- IA is the inflation adjustment factor applied to the capital charge (CCs) to escalate the capital charge from the effective price level date to the revised price level date consistent with the date that AHTs is being calculated;
- AHR_s is the notional charge (in real terms) for the Mineral Terminal Service s;
- UC_s is the usage charge for the Mineral Terminal Service s to apply during the year; and
- SC_s is the State charge for allowing the Mineral Terminal Project Company to provide the Mineral Terminal Service s to apply during the year.

Step 1. Calculate the Access Holder Capacity measured in product tonnes handled

The capacity is measured in product tonnes handled and based on the assumption above it is 37.5wmtpa

Step 2. Escalate the Capital Charge

Using the real capital charge of $0.42/t this equates to a nominal charge of $0.53/t in 2019 and is equivalent to a charge of $19.9m on an annual nominal basis in 2019.

$$CC_s = 37.5\text{t} \times \$0.53/\text{t} = \$19.9\text{m}$$

Step 3. Calculate the notional Mineral Terminal unloading capital charge

The offset is calculated by amortising the $60m capital expenditure over XYZ Co's 20 mine life with a 10% WACC.

Using the formula as set out in Article 3.5(a) determine the capital charge for the Mineral Terminal unloading component of the Mineral Terminal Services.

$$CC_s = \frac{\sum_{t=1}^{n}\left(RET_{s,t} + DEP_{s,t}\right) \times (1+WACC)^{-t}}{\sum_{t=1}^{n} T_{s,t} \times (1+WACC)^{-t}}$$

The numerator can be separated into the return component and the depreciation component as follows:

$$CC_s = \frac{\sum_{t=1}^{n} RET_{s,t} \times (1+WACC)^{-t} + \sum_{t=1}^{n} DEP_{s,t} \times (1+WACC)^{-t}}{\sum_{t=1}^{n} T_{s,t} \times (1+WACC)^{-t}}$$

The above formula can be simply restated as follows:

$$CC_s = \frac{\text{PV of Return On Capital} + \text{PV of Return Of Capital}}{\text{PV of Capacity}}$$

Therefore, CC_s is determined based on three components

1. PV of return on capital;
2. PV of return of capital; and
3. PV of the capacity.

- This equates to a nominal notional charge of $0.20/t or $7.5m per annum.

Step 4. Calculate the nominal net Mineral Terminal unloading capital charge

- The nominal net Mineral Terminal unloading capital charge offset is:

$= (CC_s \times IA) - AHR_s$

$= \$0.53/t - \$0.20/t$

$= \$0.33/t$ or $7.6m or an nominal basis in 2019

- At the rate of 37.5Mtpa on a nominal annual basis in 2019, this equates to:

$CC_s = \$19.9m - \$7.6m$

$= \$12.3m$

- The table below illustrates the nominal charge application over time

Column 1	Column 2	Column 3	Column 4	Column 5
Year	Capacity Charge	Capacity Charge Offset	Net Capacity Charge	Annual Charge
Units	$/t	$/t	$/t	$m
2019	0.53	0.20	0.33	12.3
2020	0.54	0.21	0.34	12.6
2021	0.56	0.21	0.34	12.9
2022	0.57	0.22	0.35	13.2
2023	0.59	0.22	0.36	13.6
2024	0.60	0.23	0.37	13.9
2025	0.61	0.23	0.38	14.3
2026	0.63	0.24	0.39	14.6
2027	0.65	0.25	0.40	15.0
2028	0.66	0.25	0.41	15.4
2029	0.68	0.26	0.42	15.7
2030	0.70	0.27	0.43	16.1
2031	0.71	0.27	0.44	16.5
2032	0.73	0.28	0.45	17.0
2033	0.75	0.29	0.46	17.4
2034	0.77	0.29	0.48	17.8
2035	0.79	0.30	0.49	18.3
2036	0.81	0.31	0.50	18.7

2037	0.83	0.32	0.51	19.2
2038	0.85	0.32	0.52	19.7

Step 5 Usage Charge

- Operating costs will be passed through to XYZ Co on a cost plus 12% rate which forms the usage charge.
- This results in a usage charge of $3.14/t or $117.6m annually for XYZ Co.

Step 6. Calculate the Access Holder Tariff

- At the rate of 35Mtpa on an annual, nominal basis in 2019, this equates to:

$$AHT_s = \$12.3\text{m} + \$117.6\text{m} + SC_{sd}$$

$$= \$129.9\text{ m} + SC_{sd}$$

$$Or\ \$3.71/dmt\ equivalent\ + SC_{sd}$$

Appendix 1

Additional Access Holders

(l) Where there are multiple Access Holders of the Expansion Capacity of the Mineral Terminal, and those Access Holders gain access at differing times during the Mineral Terminal Concession then any subsequent Access Holder to the first Access Holder to the Expansion Capacity of the Mineral Terminal will pay an Access Holder Tariff comprising:

(i) the base charge referred to in Article 4.5;

(ii) less a notional capital charge for the cost of the first Access Holder having to fund the Expansion Capital Costs. The calculation of the notional capital charge is the sum of:

(A) the Expansion Capital Cost incurred by the first Access Holder as adjusted for WACC and depreciation; and

(B) multiplied by the proportion of the Expansion Capacity created by the first Access Holder that is to be utilised by the subsequent Access Holder,

and the product of paragraphs (a)(ii)(A) and (B) is to be multiplied by the number of project tonnes of the subsequent Access Holder ore which at the date of calculation is projected to be handled at the Mineral Terminal in order to determine the per wet tonne charge;

(iii) a usage charge for actual use of the Mineral Terminal Services infrastructure to cover the Fixed Operating Costs and Variable Operating Costs; and

(iv) a State Charge for granting the Mineral Terminal Services to the Access Holder in the territory of the State.

(m) The first Access Holder is entitled to recover from the subsequent Access Holder an upfront lump sum payment in the amount calculated by operation of paragraphs (a)(ii)(A) and (B) in return for the subsequent Access Holder being entitled to utilise all or part of the unused Expansion Capacity.

(n) The lump sum amount referred to in paragraph (a)(ii) is to be calculated as follows:

Amount = (Investment x (WACC uplift factor) – Depreciation) x Usage/Capacity

(o) Where a subsequent Access Holder has an obligation to pay a notional capital charge as referred to in paragraph (b) then it is a condition precedent to being provided with a Mineral Terminal Service by the Mineral Terminal Project Company that the subsequent Access Holder makes payment in full to the first Access Holder.

The Republic of Cameroon

Represented by:

His Excellency, Emmanuel BONDE, Minister of Industry, Mines and Technological Development

His Excellency
Mr. Emmanuel
BONDE

Cam Iron SA

Represented by:

Mr. Giulio CASELLO, Chairman of the Board of Directors, and Mr. Serge ASSO'O MENDOMO General Manager

Mr. Giulio CASELLO

Mr. Serge ASSO'O
MENDOMO

Annex IV

COLLECTIVE BARGAINING AGREEMENT

[signed separately]

Annex V

TAX DEPRECIATION SCHEDULE

[To be inserted at a later date]

Annex VI

PROHIBITED IMPORTS

[to be inserted at a later date]

Annex VII

FISCAL AND CUSTOMS REGIME

1. During the Construction Phase (both initial construction and beneficiation construction)

During the Construction Phase of the Project (both initial construction and Beneficiation construction), Cam Iron and/or the Project Companies and/or their Shareholders, Subsidiaries, and/or Contractors, Subcontractors, shall be subject to the following taxes and customs duties and levies for their work on the Project Operations:

(b) Customs duties

- Customs duties on imported goods and services – Exempted (0%);
- No obligation or requirement to pay any import related tax or duty including exemption from SGS Inspection Tax subject to State's inspection rights; and
- VAT on imported goods – Exempted.

(c) Taxes

- Registration duties – Exempted (0%) except for residential leases outside the Exploitation Area;
- VAT on services - Exempted;
- VAT on local purchases - Exempted; and
- Business license - Exempted.

2. During the Exploitation Phase

During the Exploitation Phase of the Project (excluding any Construction Phase therein), Cam Iron and/or the Project Companies and/or their Shareholders, Subsidiaries, and/or Contractors, Subcontractors shall be subject to the following taxes and customs duties and levies with respect to the Project Operations:

(a) Customs duties

- Exempt (0%) on fuel and capital and capital replacement equipment, 5% on imported food and 2% on everything other item;
- No obligation or requirement to pay any import related tax or duty including exemption from SGS Inspection Tax subject to State's inspection rights; and
- VAT on imported goods and services - Exempted;

(b) Taxes

- Corporate Income Tax – Exempted (0%) during the five (5) year period from the Project Commissioning ("**Corporate Tax Holiday**")

- No minimum company income tax which represents one point one percent (1.1%) of the monthly turnover based on revenue (*impôt sur les sociétés et le minimum de perception)* during the **Corporate Tax Holiday;**

- Following the **Corporate Tax Holiday**, Corporate Income Tax at 25% rate including any additional council tax;

- Following the **Corporate Tax Holiday**, the minimum company income tax which represents one point one percent (1.1%) of the monthly turnover based on revenue (*impôt sur les sociétés et le minimum de perception), while Cam Iron and each* Project Company. Cam Iron and/or the Project Companies will be entitled to compensate any existing corporate income tax credit with minimum company income tax due.

- Withholding tax on payments to non resident services providers – Exempted (0%);

- Withholding tax on dividends paid or deemed distributions - 5% ;

- VAT on sales - Exempted;

- VAT on purchases of goods and services - Exempted;

- Registration duties – Exempted (0%) except for residential leases; and

- Business licence – Exempted.

3. Capital gains tax

Cam Iron, the Project Companies and their direct and indirect Shareholders shall be exempt from capital gains tax and bonus payment on:

(i) any assignment, transfer, restructure or other dealing ("Transfer") directly or indirectly in the shares of Cam Iron or a Project Company completed within three (3) years of the Date of Entry Into Force; provided that if Cam Iron, the Project Companies and their direct or indirect Shareholders wish to complete such a Transfer prior to the Date of Entry Into Force, the three (3) year period shall begin on the earliest such transfer and continue for three (3) years from that date and Cam Iron shall give notice of such Transfer; provided further that if Cam Iron directly or indirectly holds less than fifty one percent (51%) of the equity interests of each of the Project Companies respectively Cam Iron will obtain prior written consent of the State for such Transfer and

(ii) any assignment, transfer, restructure or other dealing directly or indirectly in the shares of Sundance or another parent company of Cam Iron not registered in Cameroon. Except for the transactions exempted in the preceding sentence or elsewhere in the Project Agreements, capital gains tax shall be payable.

4. Customs formalities

Cam Iron and/or the Project Companies and/or their Shareholders, Subsidiaries, and/or Contractors, Subcontractors shall benefit from the following for their work on the Project Operations:

- an exemption from all obligations imposed by the State's customs services in relation to the presentation of a final invoice for and/or inspection;

- the right to unload from any carrier any of the items in order to transport them to the Project Site or to a neighbouring country, without carrying those items to a custom warehouse or completing the customs clearance's formalities prior to the time of unloading provided that such customs clearance formalities be completed within twenty (20) Business Days following the date of unloading; and

- an exemption from all obligations imposed by customs or their representatives to obtain insurance from Cameroonian insurers in relation to any of the items and from any requirement to produce an insurance policy or certificate to show that such insurance has been obtained.

5. Carry forward of Losses/Depreciation

Cam Iron and/or the Project Companies and/or their Shareholders, Subsidiaries, and/or Contractors, Subcontractors shall benefit from the following for the Project Operations:

- The right to carry forward losses during a rolling five years period;

- Losses incurred during the Exploration and Construction Phase will be capitalized and depreciated;

- Depreciation deferred at the time of a deficit shall be carried forward without limitation;

- The right to elect to an accelerated tax depreciation at any time during the Project Operations in accordance with an acceleration coefficient of 1.25.

6. Tax deductibility

Cam Iron and/or the Project Companies and/or their Shareholders, Subsidiaries, and/or Contractors, Subcontractors shall benefit from the following rights for their work on the Project Operations:

- The right to tax deductibility of any expenditures relating to the Project Operations without any limitations to the threshold, subject to compliance with requirements concerning justifications, documentation and Arm's Length pricing; and

- The right to tax deductibility of all rehabilitation costs and provisions (including the costs associated with any mine closure), knowing that any interests generated by the amount in the Rehab Escrow Account, as well as any excess amount will be subject to the relevant tax regime under this Convention

7. Other rights

Cam Iron and/or the Project Companies and/or their Shareholders, Subsidiaries, and/or Contractors, Subcontractors shall benefit from the following rights for he Project Operations

Subject to the terms of the Quadripartite Agreement, the exemptions and rights under this Annex shall apply during Project Operations to items which:

- are imported into or transported through the State for use in any CEMAC country in connection with operations relating to iron ore);

- are exported from the State to CEMAC countries;

- pass along the Mainline, Railway the Spur Line or the Border Crossing;

- are maintained, used, consumed, stored, exhibited, repacked, assembled, distributed,

sorted, graded, cleaned, processed, tested, labelled, repaired, mixed with foreign or domestic merchandise, manipulated, manufactured, destroyed or otherwise dealt with during such period as those items remain within the Mbalam Economic Area;

- are taken out of the Project Site for any period of time and for any purpose (including repair, upgrade and maintenance) and brought back into the Project Site;
- are disposed of to the State; or
- are donated to Cameroonians for charitable purposes.

8. Withholding tax on rental payments

Cam Iron and/or the Project Companies and/or their Shareholders, Subsidiaries, and/or Contractors, Subcontractors shall be exempted from the withholding tax on rental payments in respect of any area of land required for the Project or the area of any Project Lease that are payable after commencement of Mining Operations (or, if land is not required until after commencement of Mining Operations for specific purposes, after the commencement of those specific purposes) for their work on the Project Operations.

9. Exchange Tax

The State agrees that exchange tax commission of zero point five percent (0.5%), excluding VAT, which is levied on all transfers to countries that are not members of the CEMAC, shall not apply to transfers by Cam Iron, the Project Companies Contractors or Subcontractors as all transactions involving the Project shall be deemed to be either exempt transfers linked to import settlements covered by import declarations by local banks or payments due on debt regularly contracted.

10. Benefits in kind

Food and housing provided to any employees (whether local or expatriate) working on the Project Site by Cam Iron and/or the Project Companies and/or their Shareholders, Subsidiaries, and/or Contractors, Subcontractors, shall be fully deductible for Corporate Income Tax purpose and not be considered as benefits in kind for the purposes of the calculation of personal income tax, special income tax and other taxes.

11. Expatriate Personnel

Expatriate personnel working on the Project shall benefit from the following:

- non-resident expatriate personnel of Cam Iron or Subsidiaries originating from a country that has no bilateral income tax convention with the State who are resident in the territory of the State for a total of less than one hundred and eighty three (183) Days during a given Calendar Year may elect to be taxed on a pro-rata temporis basis;
- The application of the terms of any bilateral income tax convention signed between Cameroon and the country of which an expatriate personnel is a resident or a national;
- where expatriate personnel are located in the territory of the State they shall only be taxed on their income derived in the State and not on their worldwide income;
- where a significant number of non-resident personnel are sourced from a particular country, the territory of the State will, when requested by Cam Iron or a Project Company, attempt to negotiate an appropriate double taxation agreement between the State and that country when such an agreement does not otherwise exist; and

- expatriate employees residing in the territory of the State as a result of any professional relationship with any Project Company, or any Contractor and Subcontractor shall be entitled to import and/or export all their personal belongings free of any tax, import or export duties. The State shall promptly grant all tax exemptions and other exit documents necessary for the departure of said expatriate employees.

12. Lenders and Borrowers

With respect to all loans, bonds or other form of credit or fund raising facilities between Cam Iron and/or the Project Companies and/or their Shareholders, Subsidiaries and the Lenders for the purposes of the Project, the Lenders and borrowers are entitled to an exemption from all taxes and registration duties:

- on principal and interest as well as financing costs and guarantee and credit insurance costs;

- on financing contracts and all security or guarantees related to these loans, bonds or credit or fund raising facilities at the time of their creation, transfer, enforcement or termination;

- No Tax, duty or charge is applicable to any collateral assignments.

13. Exemption from fees relating to capital increases

Each of Cam Iron and the Project Companies shall be exempted from the payment of all fees relating to capital increases.

14. Benefits granted during the Exploration

If, during the Term of the Project, the Mine Project Company undertakes exploration on the Exploitation Permit then the Mine Project Company shall enjoy the tax advantages referred to in the present Annex as well as any additional tax advantage contained in the Mining Legislation for exploration expenditure incurred during the period prior to the grant of a mining permit.

15. Quadripartite Agreement

Subject to the Quadripartite Agreement, all Nabeba Goods that are imported into the territory of the State before being transported to the Republic of Congo shall be imported into the territory of the State free of all customs duties, excise duties, taxes charges, taxation foreign exchange restrictions, tolls, inspection costs and the like and will be treated in all respects as if the Nabeba Goods were Goods for the purposes of the Convention.

16. Bonded Area

If for the purposes of customs administration, it is appropriate for all Goods and Nabeba Goods to be imported in Cameroon through a bonded area at the Mineral Terminal then Cam Iron or an appropriate Project Company, the State shall use its best efforts to facilitate the creation of a bonded area in accordance with a protocol to be established between Cam Iron and/or the Project Companies, Congo Iron and the State.

Cam Iron and/or the Project Companies will administer the bonded area.

17. Temporal Admissions

As at the Signature Date, the plant and equipment attached in this Annex is held under temporal admission. All such plant and equipment shall be permitted to remain and may remain in the territory of the State free of any customs duties, regardless of when any temporal admission may expire.

If this Convention terminates due to the Parties never achieving the Date of Entry into Force, Cam Iron or the Mine Project Company may continue to hold such plant and the equipment in the territory of the State for the remaining term of any applicable temporal admission, and where that temporal admission may have expired then the relevant plant and equipment must be exported from the territory of the State within sixty (60) Days of the date this Convention comes into end.

Cam Iron and Mine Project Company covenants not to sell any plant and equipment listed in the territory of the State during the period prior to the Date of Entry into Force.

N°& DATE DECL.	DATE D'ENR.	QTE	MARQUE	Nature	CHASSIS	OBS
S111	1/02/07	1	CATERPILLAR	ENGIN	5BF006110	equipments
S1224	14/07/2009	1	VOLVO LOW	LOADER	16-80L00106 YV2NOA2E9KB701430	equipments
S1268			Compressor			equipments
S1907	27/10/2009	1	DRILL RIG	ENGIN	UGMU897075/2	equipments
S1984	2/09/10	1	CHARIOT FORKLIFT	ENGIN	VNH014	equipments
S2301	14/10/2010	1	POMPE VOLUMETRIQUE	ENGIN	PCUI454686/0	equipments
S2305	14/10/2010	1	ACCOMODATION UNIT	ENGIN	NONU208201/0	equipments
S2547	10/11/10	1	VAN VLIET	TRUCK	XLRAZ90HSOE348634	equipments
S482	9/03/11	1	TRACTEUR VOLVO	ENGIN	YV2NOA2E9KB701413	equipments
S63	11/01/11	4 5	POMPE DIESEL,YANMAR HEAVY DUTY PVC MIXER	3,5 KW SUMCHEM		equipments
S1217	14/07/2009	1	CRANE GROVE	ENGIN	RT745 S/N 74984	equipments
S182	9/03/11	1	VEHICULE VOLVO	TRUCK	701413	equipments
S1712			Constructions préfabriquées			equipments
S1183			DRILL RIG			equipments
S1387	30/05/2007	2	LAND CRUISER	PICK UP	JTELB71J007065960 71J007065974	vehicules
S1493	11/06/07	1	TOYOTA LAND CRUISER	PICK UP	JTELB71J907065956	vehicules
S2129	20/08/2007	1	LAND CRUISER	PICK UP	JTERB71J400040188	vehicules
S2161	12/10/11	1	LAND CRUISER		JTERL71J007089417	vehicules
S2162	12/10/11	2	LAND CRUISER	HARD TOP	JTERB71J600060362 JTERB71J600060345	vehicules
S2163	12/10/11	1	LAND CRUISER	HARD TOP	JTERB71J900059660	vehicules
S2279	10/09/07	1	MERCEDES BENZ	TRUCK	WDB65234615763362 WDB65234	vehicules
S2353	31/10/2008	1	LAND CRUISER	PICK UP	JTERB71J800043644	vehicules
S2431	1/11/10	1	LAND CRUISER	VEHICLE	JTEBH3FJ005005989	vehicules
S2435	01/11//2010	2	MITZUBISHI PAJERO	VEHICLE	MMBGNKH40BF001335 MMBGNKH40BF001203	vehicules
S2537	24/11/2008	1	LAND CRUISER	PICK UP	JTERB71J100044747	vehicules
S2628	22/10/2007	1	CAMION MAN	TRUCK	N °37121	vehicules

S3076	13/12/07	2	TOYOTA LAND CRUISER	PICK UP	JTMHV090J604000545 JTMHV090J704000585	vehicules
S3165	26/12/2007	1	LAND CRUISER	PICK UP	JTFLB71J478014915	vehicules
S336	28/02/2007	1	TOYOTA LAND CRUISER	PICK UP	JTERB71J200041761	vehicules
S36	6/01/11	1	VEHICULE MITSUBISHI	VEHICLE	MMBGNKH40BF000976	vehicules
S37	6/01/11	1	VEHICULE MITSUBISHI	VEHICLE	MMBGNKH40BF001295	vehicules
S370	4/03/10	1	TOYOTA LAND CRUISER	PICK UP	JTERB71J200053750	vehicules
S377	5/03/10	3	TOYOTA LAND CRUISER		053753 053792 053747	vehicules
S578	21/03/2007	1	TOYOTA LAND CRUISER	PICK UP	JFELBHJ507059491	vehicules
S679	9/04/10	1	NISSAN P-UP	MITCAM	ADNJ980000E000410	vehicules
S703	13/04/2010	1	NISSAN P-UP	MITCAM	ADNJ980000E000395	vehicules
S857	18/04/07	1	TOYOTA LAND CRUISER	HZJ 120	JTEBY25J100054482	vehicules
S972	14/05/2010	1	TOYOTA LAND CRUISER	PICK UP	JTELB71J7084957	vehicules
S973	14/05/2010	2	TOYOTA LAND CRUISER	PICK UP	JTERB71J100053786 JTELB71J407084186	vehicules
S975	14/05/2010	2	TOYOTA LAND CRUISER	PICK UP	AHTEK22G003048058 AHTEK22G200047916	vehicules
S977	14/05/2010	2	TOYOTA LAND CRUISER	PICK UP	JTELB71JX07084354 JTELB71JX07084287	vehicules
S2128	20/08/2007	1	LAND CRUISER	VEHICLE	JTECB01J701031282	vehicules
S2431	1/11/10	1	TOYOTA PRADO	VX	JTEBH3FJ005005989	vehicules
S2628	22/10/07	1	CAMION	MAN	37121582158	vehicules

The Republic of Cameroon

Represented by:

His Excellency, Emmanuel BONDE, Minister of Industry, Mines and Technological Development

His Excellency
Mr. Emmanuel
BONDE

Cam Iron SA

Represented by:

Mr. Giulio CASELLO, Chairman of the Board of Directors, and Mr. Serge ASSO'O MENDOMO General Manager

Mr. Giulio
CASELLO

Mr. Serge ASSO'O
MENDOMO

Annex VIII

MINE GATE VALUE DETERMINATION

Free on Board ultimate value (which for clarification includes any value created by blending and other processing but excludes any marketing, logistics and financing costs under the Marketing Agreement or other fees under the Marketing Agreement) less applicable costs of the Railway and Mineral Terminal services provided to Mine Project Company in accordance with Railway Haulage Agreement and Mineral Terminal Services Agreement as the case may be.

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His Excellency
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Mr. Giulio
CASELLO

Mr. Serge ASSO'O
MENDOMO

Annex IX

CERTAIN SHAREHOLDER PROVISIONS

1. Definitions.

"**Change in Control**" means with respect to an entity (a) a transaction or series of related transactions in which the equity holders immediately prior to such transaction or series of related transactions no longer hold a majority of the of the outstanding economic interests or voting power of such entity or the equity and control of such entity or (b) a sale of a majority of the assets of such entity.

"**Equity Interests**" means with respect to an entity (a) equity interests (whether now outstanding or hereafter issued in any context), (b) equity interests issued or issuable upon conversion of other equity interests and (c) equity interests issued or issuable upon exercise or conversion, as applicable, of stock options, warrants or other convertible securities (including debt) of the such entity.

"**Exempt Transfer**" means a transaction in which the rights and amount of the Equity Interests held by the State are not adversely affected and:

(a) where the Equity Transfer contemplates transfer of the Equity Interests of Cam Iron the transfer is to a subsidiary of Cam Iron organized under the laws of Cameroon, the Equity Transfer does not generate tax or other adverse consequences for the State and the capitalization and equityholders of Cam Iron before and after the Exempt Transfer remain the same; and

(b) where the Equity Transfer contemplates transfer of the Equity Interests of a Project Company the transfer is to a wholly owned subsidiary of Cam Iron organized under the laws of Cameroon, the Equity Transfer does not generate tax or other adverse consequences for the State, the State's equity rights and holdings are preserved and the capitalization and equityholders of the Project Company before and after the Exempt Transfer remain the same.

"**Reorganization Transfer**" means direct and indirect transfers of the Equity Interests of Cam Iron and the Project Companies completed prior to the third anniversary of the Date of Entry Info Force that do not result in (a) a Change of Control; or (b) an adverse changes to the rights of the Equity Interests held by the State.

2. Equity Issuances

The State shall have a right to participate pro rata in the direct and indirect issuances of Equity Interests in the Project Companies.

3. Equity Transfers.

(a) Other than for a Reorganization Transfer, the State shall have the right of first refusal on all but not less than all of the offered Equity Interests and to participate (tag-along) pro rata in direct transfers of the Equity Interests of the Project Companies.

(b) If there is a direct transfer (which shall be deemed to include the transfer of the Equity Interests of a company to which the assets of the Project Companies contribute

more than half of the fair market value of the assets of such company) of the Equity Interests of a Project Company ("Equity Transfer"), other than an Exempt Transfer or Reorganization Transfer (including through a transaction or series of related transactions, equity sale, asset sale, merger or consolidation of a parent entity), the State shall have the right to put a pro rata portion of its interests in the Project Companies to the Project Companies in exchange for fair market value. If there is an indirect transfer of the Equity Interests of a Project Company (including through a transaction or series of related transactions, equity sale, asset sale, merger or consolidation of a parent entity) and if the transaction results in a Change of Control of a Project Company, the State shall have the right to put up to all of its interests in the Project Companies to the Project Companies in exchange for fair market value.

(c) Consent to Equity Transfers. No direct or indirect shareholder of Cam Iron or any Project Company may directly or indirectly (including any assignment or transfer and any other operation in connection with the share capital and/or voting rights of Cam Iron or any of the Project Companies, as the case may be, mergers, divisions, contributions or any similar operations) transfer the Equity Interests of a Project Company in a transaction or series of related transactions without having first received or being deemed to have received the State's written consent except:

(i) an Exempt Transfer;

(ii) Reorganization Transfer;

(iii) a transfer of the Equity Interests of a Project Company or Cam Iron so long as Sundance retains directly or indirectly 51% of the Equity Interests of each Project Company; or

(iv) an Equity Transfer through the transfer of the Equity Interests of the immediate parent company of Cam Iron (Sundance) and its parent companies.

The Parties will provide the State notice of all transactions completed without consent pursuant to the exemptions provided in this section.

(d) Review of Equity Transfers.

(i) Requests for approval, which may be required by operation of analysis referred to in this Annex, shall provide or indicate:

(A) detailed and complete memorandum describing the projected Equity Transfer, the direct and/or indirect changes in the shareholding structure of all Project Companies, and the resulting impact on the Project;

(B) for each proposed transferee (as the case may be), all of the information specified in details of the financial and technical capabilities of each proposed transferee as well as details of their ultimate shareholders and directors;

(C) a finalized version signed by the transferor(s) and transferee(s) of all the documentation relative to the projected Equity Transfer, agreed to subject to the prior

approval of the State under the conditions set forth, as appropriate, in this Annex; and

(D) the unconditional and written commitment by the transferee to meet all of its obligations under the Mine Project Company Shareholders' Agreement, Railway Project Company Shareholders' Agreement, the Mineral Terminal Project Company Shareholders' Agreement and Project Agreement(s), as the case may be.

(ii) The State requires a modification or additional information with respect to the request filed by the applicant seeking the consent of the State, in the event that such information is incomplete or addition information is required.

(iii) The State is to provide a response with respect to the planned Equity Transfer within a period of sixty (60) Days as from the date of receipt of the finalized and complete documentation and, as the case may be, includes the reasons for withholding its consent. Failing the receipt of a response from the State within the aforementioned time frame, the State shall be deemed to have consented to the proposed Equity Transfer.

4. Right Not to Participate. The State shall have the right to retain its Equity Interests in the Project Companies in any Equity Transfer (including a merger or consolidation).

5. Key Personnel. No Project Company will hire or end the employment or engagement of the person or entity serving as the manager of the Project or the Project Companies, the top executive officer of a Project Company, chief financial officer and chief human resources officer without previously discussing the person's candidacy with the Joint Committee.

The Republic of Cameroon

Represented by:

His Excellency, Emmanuel BONDE, Minister of Industry, Mines and Technological Development

His Excellency
Mr. Emmanuel
BONDE

Cam Iron SA

Represented by:

Mr. Giulio CASELLO, Chairman of the Board of Directors, and Mr. Serge ASSO'O MENDOMO General Manager

Mr. Giulio
CASELLO

Mr. Serge ASSO'O
MENDOMO

RÉPUBLIQUE DU CAMEROUN
Paix – Travail - Patrie

SERVICES DU PREMIER MINISTRE

CABINET DU PREMIER MINISTRE

N° B70/d-34 /CAB/PM

REPUBLIC OF CAMEROON
Peace – Work - Fatherland

PRIME MINISTER'S OFFICE

PRIME MINISTER CABINET

Yaoundé, le 29 NOV 2012

Le Premier Ministre, Chef du Gouvernement,
The Prime Minister, Head of the Government,

À/to

Monsieur Emmanuel BONDE,
Ministre des Mines, de l'Industrie et du Développement Technologique.

- YAOUNDE -

OBJET: Signature de la Convention Mbalam.-

À la suite des négociations concluantes menées par le Comité de Pilotage et de Suivi du Projet d'Exploitation du Fer de Mbalam (COPIL) pour la valorisation du gisement de fer de Mbalam, objet du permis de recherche EP 92,

J'ai l'honneur de vous transmettre ci-joint le projet de Convention Minière de Mbalam qui consacrera les principaux termes-clés de l'accord auquel sont parvenus le Gouvernement et la société Cam Iron SA.

J'ai bien noté que la signature de la Convention Minière de Mbalam va constituer une étape très importante sur le chemin critique de réalisation du Projet Mbalam qui, outre la mine, comprendra une ligne de chemin de fer, un terminal portuaire et d'autres infrastructures connexes. Elle permettra à Sundance Ressources Ltd et à CamIron, d'après ce qui m'a été rapporté, de remplir les conditionnalités de la China Development Bank (CDB) pour libérer les financements nécessaires à l'acquisition du capital de la société Sundance Ressources Ltd par son partenaire stratégique Hanlong (Africa) Mining Investment Ltd.

En relation avec le COPIL, vous voudrez bien veillez à ce que la transition annoncée, entre Sundance Resources Ltd et Hanlong (Africa) Mining Investment Ltd, pour le contrôle du capital de Cam Iron, ne remette pas en cause les intérêts de notre pays, déjà négociés dans la Convention Minière de Mbalam.

Compte tenu de ce qui précède, je vous demande de bien vouloir signer, au nom du Gouvernement, au plus tard le vendredi 30 novembre 2012, ladite Convention./-

Philemon YANG

PJ : Projet de Convention Mbalam.-
Copie : PR (ATCR).

CAMIRON SA

CAM IRON SA
("COMPANY")

A public limited company managed by a board having a registered capital fixed at the sum of CFAF 14,400,000, with its registered office situated at 2eme étage, immeuble Hibiscus, Avenue Charles de Gaulle, Hippodrome, Yaoundé and being entered in the Trade and Personal Property Credit Register of the Republic of Cameroon under number RC/YAO/2005/B/362.

MINUTES OF MEETING OF DIRECTORS OF THE COMPANY HELD ON 28 NOVEMBER 2012 AT 2EME ETAGE, IMMEUBLE HIBISCUS, AVENUE CHARLES DE GAULLE, HIPPODROME, YAOUNDE

Meeting declared open: [11.00 AM]

Directors Present:	Serge Asso'o Mendomo, Director and General Manager
	Giulio Casello, Chair and Permanent Representative of Sundance Resources Limited
	Bruno Pennetier, Permanent Representative of Sundance Minerals Pty Ltd
	David Meehan, Permanent Representative of Sundance Exploration Pty Ltd
Proxy :	Bruno Pennetier, appointed proxy of Marc Montandon, permanent representative of Sundance Mining Pty
Absent :	Roger Bogne, Permanent Representative of Holdco
Chairman :	Giulio Casello
Invited:	Sylvain Martial Endougou, Ernst & Young

RESOLUTION 1 – Notice Period

It was unanimously noted that an invitation to attend the Board meeting was sent to each of the Directors on 23 November 2012 at short notice by reasons of the requirements of the Government of Cameroon to execute the Mbalam project convention to be entered into by the Company with the Republic of Cameroon (**the Mbalam Convention**).

It was unanimously noted that such invitation at short notice is fully compliant with the provisions of section 453 of the OHADA Uniform Act Related to Commercial Company and article 37 of the article of association of the Company and that accordingly the Board Meeting may be validly held in accordance with these provisions.

It was also unanimously noted that, as a contractual matter between the shareholders of the Company, clause 13.4 of the Shareholder's Deed dated 4 July 2007 between the Company, Sundance Resources Limited and Holdco SARL, provides that directors must be given 14 day notice of a Directors' meeting but that the Directors may waive such 14 days' notice requirement.

It was noted that, although it is the corporate benefit *(interêt social)* of the company, considering ongoing negotiation and the agenda imposed by the Government of Cameroon, to execute the Convention in accordance with the time table set by the Government, the Directors were given the opportunity to require that the 14 day notice period be adhered to but that no directors demanded that this 14 day notice period be complied with.

Accordingly all the Directors unanimously noted that, as regards the contractual relationship between the shareholders of the Company under the Shareholders Deed Dated 4, July 2007, the 14 days' notice period is waived.

IT WAS UNANIMOUSLY RESOLVED that these proceedings have been properly convened.

RESOLUTION 2 – Meeting, Chair and Secretary

It was unanimously noted the presence of 4 Directors and a proxy given to Bruno Pennetier by Marc Montandon was tabled.

The Quorum is met and Board of Directors Meeting can be held.

IT WAS UNANIMOUSLY RESOLVED to appoint Sylvain Martial Endougou as Secretary of this meeting.

RESOLUTION 3 – Shareholders meeting on the convention

The Chairman tabled a letter sent to the company by Hold Co Sarl indicating that the draft of the Convention should be circulated to the shareholders prior to execution.

The Board considered the matter but determined that this issue is not a matter that falls within the jurisdiction of Shareholders meetings as Articles 435, 436, 437 and 487 of the OHADA Uniform Act Related to Commercial Company, articles 33 and 40 of the article of association give either the Board or the General Manager **the widest powers to act in all circumstances on behalf of the company.**

The Board requested the Chairman to communicate this decision to Hold Co SARL.

The Board also noted that it is to the corporate benefit *(interêt social) of the company,* considering ongoing negotiation and the agenda negotiated by the Government of Cameroon, to execute the Convention in accordance with that time table.

IT WAS UNANIMOUSLY RESOLVED to apply the above provisions of the OHADA Uniform Act Related to Commercial Company.

RESOLUTION 3 - Authority to Sign Mbalam Convention

Drafts of the Convention and one of its annexes, the related collective labour agreement (**Collective Labour Agreement**) as they stood at the date of the meeting, were tabled.

It was unanimously noted that Serge Asso'o Mendomo, Director and General Manager of the Company has already the power under section 487 of the OHADA Uniform Act Related to Commercial Company and article 40 of the article of association of the Company to execute the Convention and the Collective Labour Agreement on behalf of the Company.

However the Board, given that these documents will be executed in a solemn ceremony organized by the Government of Cameroon, also wishes to empower, pursuant to section 437 of the OHADA Uniform Act Related to Commercial Company and article 33 of the article of association of the Company, the Chairman of the Company Mr Giulio Casello to execute the Convention and the Collective Labour Agreement.

It was also noted that, as the negotiations are still ongoing, changes may be brought to the documents tabled before they are signed.

ACCORDINGLY IT WAS UNANIMOUSLY RESOLVED that :

- Giulio Casello, Chairman
- And, to the extent necessary given his existing powers as General Manager, Serge Asso'o Mendomo, Director and General Manager,

are each individually entitled to negotiate and make any amendment to the Convention and the Collective Labour Agreement as tabled and, individually or jointly, to sign these documents on behalf of the Company.

As there was no further business, the meeting was closed at 14.00 pm

Signed as a true and accurate record of the meeting by:

Sylvain Martial Endougou,
Secretary

Giulio Casello
Chairman

Serge Asso'o Mendomo
Director