

## Zambeze Project

Feasibility Study Report (for capacity of 11MTPA and 22MTPA) prepared by a Consultant containing following details, is available with ICVL:-

### 1- Mining & Geology Data for Zambeze Project

#### I- Geology Data

- Property Location and Description
- Exploration & Exploitation Concept
- Geology and Coal Potential
- Geological Model in Minex and Coal Resource Estimate
- Raw data of BHs in CSV (geological logs, Geophysical logs, laboratory Analysis)
- Current Resources
- Hydrogeology & Hydrology reports
- Geotechnical report

#### II- Mining, Mine Planning and Coal Reserves Data

- Coal Resource and Reserve Statements
- Geotechnical Design Considerations
- Block Ranking of Coal Seams
- Design and Scheduling
- Xpac Production Schedules
- Mining Overview and Major Earthmoving Equipment
- Total Equipment Requirements/ Spares and Consumables
- Drilling and Blasting
- Gap Analysis and Optimization of the Mine Plan
- Baseline Assessment
- Mining HR and Operational Readiness
- Zambeze Coal Project Mining Workforce Strategy
- Project Phase Work Force
- Operational Phase Workforce
- Mining Capital Costs Estimate & Estimating Methodology
- Opencast Mining, Ramp & Box Cut data
- Bulk Earthworks, Civil Works, Infrastructure & General Services

- HDV and LDV Break Test Ramps and the Explosives Magazine Protection Berm
- Stormwater Management
- Sewer Treatment Plants (STPs)
- Potable Water Treatment Plants (WTPs)
- Mine Support and Design Packages
- Mechanical Equipment
- Diesel Consumption & Oil Separators
- Design Development Allowance (DDA)
- Closure Cost Estimate
- Mining Operating Costs
- Mining Infrastructure Operating Costs
- Mining General and Administrative Operating Costs
- Sustaining Capital Costs (Mining and closure costs)
- Economic Analysis & Business
- Mining Viability Assessment
- Project IRRs and Funding Considerations
- Debt Ratios
- Cash Flow Considerations

## 2- Coal Handling and Processing Plant (CHPP) Data for Zambeze Project

- CHPP report
- Process Control Diagrams
- Process Flow Diagrams
- Process Simulation Report
- CHPP Average Mass balance
- Dynamic Simulation report
- Process Development
- Product Yields
- Infrastructure and Engineering:
  - ❖ Civil
  - ❖ Ground Conditions
  - ❖ Roads
  - ❖ Terraces
  - ❖ Wet Services Reticulation
  - ❖ Dams
  - ❖ Fencing

- ❖ Buildings and Structure
- ❖ Tailings Ponds
- ❖ Mechanical Design
- ❖ Site Layout
- ❖ Mechanical Layouts and Design
- ❖ Dynamic Simulation of Material Handling System
- ❖ Electrical Design
- ❖ Emergency Power
- ❖ Construction Power
- ❖ Lighting
- ❖ Electrical Infrastructure
- ❖ Control System Design
- ❖ MCC PLC Interface
- ❖ Medium Voltage (MV) Interface
- ❖ Instrumentation Design
- ❖ Information Management Design
- ❖ Security
- ❖ Telecommunication and Office Infrastructure
- ❖ Logistics
- ❖ Construction Logistics
- ❖ Logistical Infrastructure Affected by the Project
- CHPP HR & Work Strategy
- CHPP Workforce Strategy (Project phase & Operational phase workforce)
- CHPP Capital Costs Estimate & Methodology
- CHPP Bulk Earthworks, Civil Works, Infrastructure & General Services
- CHPP Structural Steel and Plate Work
- Belt Conveyors data
- Mechanical Equipment
- Piping and Valves
- Electrical, Control and Instrumentation
- Transport
- EPCM
- Spares and Consumables
- Design Development Allowance (DDA)
- Closure Cost Estimate
- CHPP Operating Cost Inputs
- Coal Handling and Processing Plant Operating Costs
- Infrastructure Operating Costs
- Cash Flow Considerations

### **3- Transportation of Coal Products (CC+TC) by Rail from Moatize Siding to Beira Port (600 km) for Zambeze Project**

- Existing Government Railway Line of about 600 km from Moatize Siding to Beira Port
- Coal Transportation Workforce Strategy & Data
- Rail Load-Out System
- Capital Costs Estimate & Estimating Methodology
- Rolling stocks (total Locomotives and Wagons requirements)
- EPCM
- Spares and Consumables
- Product Logistics
- Future Railway Opportunities
- Cash Flow Considerations

### **4- Additional Information/ data available for Zambeze Project:**

- Approved Mining Plan by the Government of Mozambique
- Gap Analysis and Optimization of the Mine Plan
- EIA and Resettlement Action Plan Studies Reports
- Baseline Assessment
- Approved Resettlement Action Plan (RAP) for shifting of about 1018 families
- HR and Operational Readiness
- General and Administrative Operating Costs
- Sustaining Capital Costs (Mining, CHPP, Infrastructure and closure costs)
- Economic Analysis & Business Viability Assessment
- Project IRRs and Funding Considerations
- Project IRRs
- Project NPVs
- Debt Ratios
- Valid Mining Concession (4695C) for 25 Year
- Completed Study of EIA/EMP and submitted to the environmental Authority for approval