## Project Planned & Predicted Phases

| | | |
|---|---|---|
| Phase 1: | **Bridge Project:** | Developing a bauxite mining operation with annual capacity of 1,000,000 tpy for export |
| Phase 2: | **Main Project:** | Developing a bauxite mining operation with annual capacity of 3-7 million metric tpy for export and/or processing into alumina |
| Phase 3: | **Alumina Project:** | Construction of a 1,200,000 tpy alumina plant |
| Phase 4: | **Aluminum Project:** | Construction of a 240,000 tpy aluminum smelter, and a 500 MW power plant |

### Anticipated Capital Investment:

| | |
|---|---|
| Phase 1: | 27,000,000 US$ |
| Phase 2: | 120,000,000 US$ |
| Phase 3: | 950,000,000 US$ |
| Phase 4: | Not Yet Analyzed |

**Phase 1:**
**Bridge Project Economical Status**

| | |
|---|---|
| Capital Investment: | 27,000,000 US$ |
| Design and Construction Period: | 2 Years |
| Operation Period: | 4 Years |
| Internal Rate of Return (IRR): | 33% |
| Net Present Value (14%): | 12,000,000 US$ |

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# HELALIN S.A.

## BAUXITE & ALUMINA PLANT PROJECT

### in Republic of Guinea


www.helalinsa.com

## Project Introduction

HELALIN S.A., a Joint Stock Company between 3PL Trade S.A. from Greece and ITOK GmbH from Austria, incorporates under the laws of Republic of Guinea and has concluded a Basic Convention with the Ministry of Mines and Geology of Guinea ratified by the Parliament of Republic of Guinea. HELALIN S.A. has acquired a bauxite exploration permit over a 2000 sq. km area in Fria-Telemele region located in western Guinea, about 180 km from Conakry Port.

The aim of project is to develop and establish a mining operation in the mentioned area to exploit and export 3 to 4 million tonnes bauxite to international markets at the first step, and to construct a 1.2 million tpy alumina plant to treat bauxite into alumina at the second step.

The possibility of construction of an aluminum smelter and the related infrastructures; and a power plant in further steps are also under investigations.

## Guinea Bauxite Resources and Industries

Republic of Guinea is located in western Africa and extends over 245,857 square kilometers. Possessing 7 billion tons or about one-third of 20 billion tons world bauxite base reserves, Guinea stands at the first rank among the countries having the largest bauxite reserves in the world.

## Available Infrastructure

Vicinity to the main city of Fria and the Friguia Alumina Plant, Conakry-Fria asphalted road, manpower, water and power resources available; access to the existing transportation means of Fria-Conakry metric railway of Friguia alumina plant, and alternatively Kindia-Conakry standard railway of CBK company, utilization of alumina and bauxite storage, and loading facilities of Friguia and possibly SBK companies at Conakry port.


## Project Main Information

| | |
|---|---|
| **Project Location:** | Project Location: About 180 km northeast Conakry |
| **Project Owner:** | HELALIN S.A., a company incorporated under the laws of Republic of Guinea and established to develop the bauxite and other mineral resources of Fria-Telemele Bauxite resources extended over 2,000 square km and surrounded by Kindia, Fria and Telemele cities the license of which for exploration has been granted by the Ministry of Mines & Geology of Guinea to HELALIN S. A. |
| **General Contractor:** | ITOK GmbH Engineering, Technology and General Contracting Company |
| **Exploration and Exploitation Licenses:** | Over an about 2,000 square km Area, surrounded by Kindia, Fria and Telemele cities, about 180 km from Conakry |
| **Bauxite Resources:** | Total indicated and inferred bauxite resources in the Area are estimated to be 500 Million tons @ 46% average alumina grade (Al2O3) and @ 2% average Silica content (SiO2) |
| **Bauxite Mineralogy:** | Gibbsite bauxite ore suitable to treat to alumina through Bayer Process |

## Project Advantages

Beneficiary of Massive Bauxite Resources of Guinea in general and of granted Area in particular, quality and quantity of bauxite resources, easy treatment of bauxite into alumina through Bayer Process, existing infrastructure and roads, water and power resources; low manpower costs, existing railways and port facilities, vicinity to the Atlantic ocean to easily export the produced bauxite and alumina to the world market, no environmental significant impacts, cooperation in sustainable social and economical development of Republic of Guinea, etc.