



DEMOCRATIC REPUBLIC OF CONGO
PROVINCE OF SOUTH - UBANGI



BOBINDO HYDROELECTRIC POWER PLANT

« ELECTRICITY OF SOUTH UBANGI »

PROJECT FILES

Estimated Budget: 2,120,008,846 USD

SOUTH UBANGI PROVINCE

Lastest Update: November 2022



PROJECT NAME: CONSTRUCTION OF A HYDROELECTRIC POWER PLANT AND TRANSMISSION OF ELECTRICITY

Contracting company	SOUTH UBANGI PROVINCE
	GENERAL CHARACTERISTICS
Brief description	<p>The hydroelectric power plant project combines clean energy production with a transmission line to transport electricity to major cities in South Ubangi Province. It consists of the construction, operation and maintenance of the 300 MW base hydroelectric power plant at the dam on the LUA River and a power transmission line to transport electricity to the 4 proposed main substations and then to 33 related substations.</p> <p>This project is a crucial step in closing the electricity gap in South Ubangi province, while ensuring lower carbon-intensive growth.</p> <p>Indeed, the South-Ubangi province has a significant energy deficit due to the delay in general coverage in the DRC. It combines with the demand generated by programs such as the provincial government's program based on increased access to electricity services throughout the province, especially in rural areas.</p> <p>However, the province's enormous hydroelectric generation potential is of economic importance to the local, national and regional market as an important clean energy solution for the sustainable development of the energy sector.</p>
Location	BOBINDO – MBARI , South-Ubangi Province, North-Western Democratic Republic of Congo
Interest of the Project	<ul style="list-style-type: none"> ➤ The Project will reduce to some extent the carbon footprint of the existing legacy system, which is relatively very high. ➤ The Project will also reduce the CO2 emissions that would normally result from the use of wood and coal as an alternative in the province. ➤ Energy production appears to be relatively well protected against the impacts of climate change on hydrological variations. ➤ As a clean energy production and transmission project, the province will have positive externalities for 544,963 households in general and women in particular because the project's expected outcomes include improved reliability and increased electricity supply to many of the province's communities. This will improve the quality of life of women in particular, as electricity will help to increase access to appliances that reduce the burden of household chores. ➤ The project increases the opportunity for women in education and health, giving them more time and providing electricity for health and agricultural applications. ➤ This project is a source of job creation during the construction and operation phase while reserving 35% of jobs for unskilled and semi-skilled labour for women. ➤ The project will increase local income and create wealth. ➤ The project will provide various types of benefits, in particular local employment opportunities where it is estimated that at least 2,852 jobs for skilled and unskilled labour will be created during the implementation of the power plant project, transmission line and during the operation of the plant and substations. It is to be noted that the number of persons responsible for maintaining the right of way will be increased. ➤ A reliable supply of electricity to the province and neighboring cities will create a diversified source of wealth for the communities in the project area as well as the entire population of the province.



	<ul style="list-style-type: none"> ➤ The transmission line will carry electricity and provide it to 544,963 households and 2,667 professional customers in the city of Gemena and surrounding cities, as well as to industrial, agricultural, banking, telecommunications and commercial consumers. ➤ Most importantly, this project will expand the rural electrification program and the local community will benefit from improved water and sewerage facilities as well as power to hospitals, schools, universities, cold rooms, etc. ➤ This project will provide street lighting in our cities to reduce crime and insecurity rates. ➤ This project may lead to the sporadic development of new industrial areas, new public markets and shops as well as the emergence of new residential areas that meet urban planning and international standards.
Estimated Budget (USD)	<ul style="list-style-type: none"> ☞ Additional feasibility studies :1, 923,976 ☞ Equipment and materials for civil works for the dam : 152, 071,750 ☞ Purchase of local construction materials :155, 786,450 ☞ Construction of the Bobindo base camp : 1, 438,000 ☞ Supply of fuel and Lubricants 594, 503,400 ☞ Expenditure on Human Resources and Administration of the Bobindo site :21, 360,000 ☞ Construction of office and employees homes for Mbari Coordination Centre :89, 333,676 ☞ Purchase of rolling stock :12,189,500 ☞ Purchase of electromechanical materials and equipment and well as cables and accessories for MV and LV networks: 574, 777,599 ☞ Construction and equipping of the offices of the Electricity Sales Centre :20, 375,370 ☞ Staff recruitment and training : 5, 151,050 ☞ Legal procurement procedures :3, 000,000 ☞ Import duty –VAT fiscal and parafiscal taxes : 412,418,010 ☞ Equipment and materials international fret and transportation :66,680,065 ➤ TOTAL : 2, 120, 008,846 USD
characteristic	<ul style="list-style-type: none"> ✓ Location : Bobindo site , LUA River , sector of MBARI , territory of Gemena ✓ Main activity : Electricity Production , transportation and marketing ✓ Forecast capacity of Bobindo hydroelectric power plant : 350 MW ✓ Operational capacity : 300 MW ✓ Transmission : MV and LV lines with a total length of 6,000 km ✓ Coordination Central Office location : City of MBARI ✓ Peak power prediction (forecast consumption) : 293 MW <ul style="list-style-type: none"> 1) 212 MW for the classic households 2) 72 MW for the SICS 3) 9 MW for the Street lighting ✓ Associated facilities : Roads – schools – hospital - residences for workers ✓ Social impact : 2,852 directs jobs in 10 departments ,including : Production department (1,616) , MV and LV Transmission department (136),Distribution department (295),Sales and Marketing department (211),administrative and Financial department (22) , Human Resources department (17), General Management (33),Social Works and General services department (464),HSE (Health-Security-Environment) department (45), Risk Management department (13).
Beneficiaries	<ul style="list-style-type: none"> ✓ 544,963 households namely : <ul style="list-style-type: none"> 1) 539 households of Type A (household with high income living in a villa)



- 2) 108,449 households of Type B (household with average income living in a house made of durable materials – cement or clay brick and sheet metal roofing)
- 3) 190,735 households of type C (low-income households usually living in mud brick houses – roof with or without sheet metal)
- 4) 245,240 households of type D (households with very low-income who live in terracotta house (straw roofing)
- ✓ 2,667 Semi-Industrial and Commercial Subscribers(SICS)

ECONOMIC AND FINANCIAL STUDIES

Repayment period	“Design-Construction-Financing-Ownership-Operation-Transfer(DCFOOT)” with specified legal terms and conditions
Annual rate	None
Characteristic feature	None
Profitability indicators	<p>A. <u>Forecast Turnover (All Taxes Combined)</u> FY 1 : 637,792,518 USD FY 2 : 648,423,994 USD FY 3 : 658,622,934 USD FY 4 : 670,000,435 USD FY 5 : 681,730,990 USD</p> <p>B. <u>Forecast Economic Result</u> FY 1 : 431,830,164 USD FY 2 : 439,713,791 USD FY 3 : 444,973,065 USD FY 4 : 451,037,077 USD FY 5 : 457,230,152 USD</p> <p>C. <u>Return On Assets (ROA)</u> FY 1 : 25.28 % FY 2 : 25.75 % FY 3 : 26.06 % FY 4 : 26.41 % FY 5 : 26.77%</p> <p>D. <u>Return On Equity</u> FY 1 : 21.49 % FY 2 : 21.88 % FY 3 : 22.15 % FY 4 : 18.49 % FY 5 : 18.74 %</p> <p>E. <u>Earnings per share</u> The profitability offered to the investor corresponds to the profitability required by the investor i.e. ROA = ROE = Return on Equity. FY 1 : 5.0577709 FY 2 : 5.1501071 FY 3 : 5.2117059 FY 4 : 5.2827301 FY 5 : 5.3552659</p>



- F. **Financial cost of debt** : None
- G. **Financial Leverage** : Positive
- H. **Target Financial structure of the project** : 1,701,590,836 USD
- I. **Weight Average Cost of Capital (WACC)**
FY 1 : 21.49 % (The cost of equity)
FY 2 : 21.88 % (The cost of equity)
FY 3 : 22.15 % (The cost of equity)
FY 4 : 18.49 % (The cost of equity)
FY 5 : 18.74 % (The cost of equity)
- J. **Threshold of Profitability (Break – even point)** : 270,736,879 USD
- K. **Critical turnover** : 205,962,354 USD
- L. **Neutral point**: the project starting on date D of a certain year Y, will reach break-even point (the critical turnover) on date D+177 days.
- M. **Net Current Value of project** : (NCV) : 466,869,835 USD
- N. **Cumulative Cash position** : 1, 174, 460,671 USD
- O. **Profitability of Project** : The Net Current Value of the project is higher than 0 (positive), then the Project is PROFITABLE
- P. **Recovery time: Internal Rate of Return (IRR)** = higher than the various market returns over the 3.7 years
It is an investment that creates wealth because the wealth generated by the investment is greater than its cost.
- Q. **Payback period** :
- R. **Socio-economic impact** :
- ☞ This project contributes to the improvement of the living conditions of the populations;
 - ☞ This project contributes to the budget of the central government in general and the provincial government in particular through the payment of various taxes, contributions and royalties;
 - ☞ This project contributes enormously to the great visibility of the province of South-Ubangi as an investment land;
 - ☞ It will also provide electricity to the populations of the South-Ubangi Province. This is a considerable advance for these populations in terms of economic and social implications and the fight against poverty;
 - ☞ With associated infrastructures such as roads, schools and hospital, this project is timely in addressing the education and health deficit in South Ubangi Province.
- These are easily seen by reading the various conclusions of the projected income statement and the sensitivity analysis through the aggregation of the figures.
- ☞ Number of Kwh produced over five years: 1,757,411,114 Kwh.
 - ☞ Projected turnover: The projected turnover for the five years is 2,841,871,440 USD.
 - ☞ Economic impact and indirect employment: The various purchases both locally and internationally as well as other external expenses, give right to tax and parafiscal payments: And through our purchases, the Bobindo Hydroelectric activities have an indirect impact on the economy of the country, because from these purchases, our various suppliers and purchasers are able to pay the salaries of their staff, taxes, rent and to make profits. These purchases, supplies and external expenses consume an amount of 435,147,356 USD, or 15.31 % of the turnover.



- ☞ Direct jobs: This project creates 2,852 direct jobs. These direct jobs created by our activities contribute to the improvement of the living conditions of the Congolese people employed by Bobindo Hydroelectric Power Plant and their dependents.
- ☞ Through the salaries received, they assume their various family and social responsibilities by taking care of basic social needs such as food, schooling, health care, housing etc. for their dependents. And as legal taxpayers, they participate in the economic recovery effort of the Democratic Republic of Congo through the payment of the Professional Tax on Remuneration (IPR). And in the framework of this project, the gross amount before treatment of IPR, CNSS and INPP is 312,389,425 USD, or 11 % of the turnover.

The impact is visible in terms of the effect of the Bobindo Hydroelectric Power Plant plant's activities on the public treasury. The table below gives an overview of the VAT, taxes, fees and royalties to be paid. This shows the project's contribution to the Congolese government's budget.

Designation	Payable only from the 5 th fiscal year	Percentage
VAT	81,619,656	2.9 %
Taxes and similar payments	24,775,100	0.8 %
NSSF-labor share	10,081,028	0.35 %
NIPP	2,880,296	0.10 %
PTR	85,508,000	3 %
Total	204, 864,080	18.05 %

- ☞ This is evidence that the project is giving a positive sensitivity which shows that the "return" dimension and the "risk" dimension have been well taken into account. In other words, it means that Bobindo hydroelectric power plant has adequately addressed the operating or economic risk related primarily to the sale of energy and the financial risk related to the way Bobindo hydro has financed its project.
 - ☞ Net salaries paid over 5 years: 199,518,631 USD.
 - ☞ Medical care provided over 5 years: 1,795,668 USD.
 - ☞ Staff training is an integral part of the operating costs associated with the cement plant's activities. A budget for investment and a budget for research and training are provided for in this context. The inclusion of this dimension in the forecasted expenses demonstrates the importance that the company attaches to the development plan and to the reinforcement of the capacities of its personnel.
- The estimated budget is 7,104,679 USD over a period of 5 years.

INFORMATION SPECIFIC TO THE STRUCTURING OF THE PROJECT

Scope of activities of the financial partner

- Financing of the investment sought

South UBANGI PROVINCE:

The guarantees that will have to be submitted

- the law on Public Private Partnership (DRC's PPP Act)
- the DRC Electricity Act
- The DRC's Investment Code

Indeed, as Governor of the Province of South-Ubangi, His Excellency Jean Claude MABENZE GBEY BENZ confirms in full legal and corporate responsibility that the Province of South-Ubangi is ready, willing and very interested in concluding an agreement for the "**DESIGN - CONSTRUCTION - FINANCING – OWNERSHIP- OPERATION - TRANSFER**" of Bobindo



	<p>Hydro power Plant project in the form of a B.O.T "Build - Operate - Transfer", as specified below on the basis of the following:</p> <p>The legal terms and conditions are: Guarantee / Collateral: Mining concession for a period of 30 years.</p> <p>Planned distribution of investments:</p> <ul style="list-style-type: none"> ➤ Financial Partner : 2, 120, 008,846USD
Method of remuneration of the financial partner	<p>Type of partnership considered:</p> <ul style="list-style-type: none"> ☞ Public Private Partnership (PPP) with "Financing corporate "and "financing project" approaches with creation of a Special purpose Vehicle (SPV). ☞ B.O.T: Return on Investment Model: 100 % Profit for the INVESTOR for a period of 30 years. After 30 years, the Bobindo Hydro Power plant and all assets remain full property of the South Ubangi Province. ☞ Investor Responsibilities: Creating Job opportunities for the population. ☞ Type of Contract: BOT partnership Contract, "Build – Operate – Transfer" with full 100 % control of share and profit for a period of 30 years by the investor to recover the investment.
	PROJECT STATUS
Status of the project	<ul style="list-style-type: none"> ✓ Availability of technical feasibility studies: YES ✓ Business Plan Availability: YES ✓ Project not yet started due to lack of funding and investment
Available information	<ul style="list-style-type: none"> ✓ List of Project Partner <ul style="list-style-type: none"> ✓ Contract for the Good Execution of Programs ✓ Security guarantee ✓ Project Business Plan ✓ Project Steering Committee ✓ Asset Valuation ✓ Technical Partners
Next step	<ul style="list-style-type: none"> ✓ Signing of PPA ✓ Signign of MoU ✓ Signing of Concession contact ✓ Special Purpose Vehicle creation ✓ Signing of partnership agreements
	GENERAL INFORMATION ON THE PROPONENT
Company name	SOUTH UBANGI PROVINCE
Legal form	Decentralized Territorial Entity with management autonomy
Head Office	Avenue MOBUTU N ° 4922, Quartier du Congo, Commune Labo, Ville de GEMENA
Operating headquarters	N° 06, Avenue du Livre, Immeuble Lengelo, Commune de la Gombe
Number of Shareholders	None
Proponent	Jean-claude MABENZE GBHEY BENZ , GOVERNOR OF PROVINCE
Project Coordinator	MUPEYA N'GHEMBANG CHOU – AIME, Governor's Senior advisor