

BUGANDO NATURAL ENERGY COMPANY LIMITED

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**PROPOSED: 5MW BUGANDO SOLAR POWER PLANT AT BUGANDO
VILLAGE IN MAGU DISTRICT, MWANZA REGION**

BUSINESS PLAN



Submitted to

**TANZANIA INVESTMENT BANK (TIB)
FOR FINANCING**

SEPTEMBER, 2022

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Upon request, this document is to be immediately returned to **Bugando Natural Energy Company Limited**.

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1.0 EXECUTIVE SUMMARY

1.1 Proposed business

Bugando Natural Energy Company Limited is seeking financing for the construction and operation of a 5MW Bugando Solar Power Plant (“the Project”). The Project is located at Bugando Village, Chabula Ward in Magu District, Mwanza Region. The project will generate 13,863 MWh of electricity per year and sell power to TANESCO under the guiding provisions of a 20 years Power Purchase Contract which has a base tariff of US\$0.07/kWh. The project is seeking capitalization financing to fund the construction of the project using an investment structure that is geared at a 70:30 debt to equity ratio. The project is designed to be implemented in two phases (Phase I. with 10MW power capacity and phase II with 50MW power capacity). Phase I is further divided into two stages with first stage to install 5MW power (*this Business plan*) and second stage to install 5MW. Measures have been taken for future expansion of the project (phase II) which include acquisition of 300 acres of land.

1.2 Investment Structure

The estimated investment for the project is US\$ 6,005,642.10. The project developer is seeking for a loan from financiers amounting to US\$ 4,200,000.00 equivalent to 70% of the total investment; Grant of US\$ 225,000 and equity sponsor of US\$ 1,555,642.10 whereas US\$ 25,000 is the contribution of the developer to the project preparations. The loan we seek is a project loan secured only by the underlying catalogues and assets of the project.

Summary of Investment Costs		
Cost Category	US\$	%
Project Preparation	303,760.00	5.1%
EPC cost	5,567,563.03	92.7%
Working Capital	134,319.06	2.2%
Grand Total	6,005,642.10	100.0%

A one year grace period is assumed to cover construction and early operation commencement time.

Summary of Financing Structure		
Source of Fund	US\$	%
Developer's own equity	25,000.00	0.4%
Equity sponsor	1,555,642.10	25.9%
Grant from REA (PPSF)	225,000.00	3.7%
Loan	4,200,000.00	69.9%
Total Funding	6,005,642.10	100.00%

1.3 Project Financial Return overview

The total expected project investment for installation of 5MW Solar power plant is US\$ 6,005,642.10. The project has a net present value (NPV) of US\$ 8,377.29; Equity IRR of 10.1% with payback period of 8.5 years after commissioning.

A summary of project Financial performance is as presented in table hereunder.

Summary of Project Financial performance									
Parameters	Base Case: During construction (6.5% interest rate)			Post construction refinancing (5% interest rate)			Post construction refinancing (6% interest rate)		
	Base Case	Scn 1	Scn 2	Base Case	Scn 1	Scn 2	Base Case	Scn 1	Scn 2
NPV	8,377.29	12,375.22	14,310.22	38,023.84	34,247.18	8,768.69	116,668.03	9,725.55	42,616.95
Equity IRR	10.1%	10.1%	10.1%	12.10%	11.1%	10.2%	15.30%	10.3%	11.00%
DSCR	> 1	> 1	> 1	> 1	> 1	> 1	> 1	> 1	> 1
Payback period	8.5 years	9.7 years	9.11 years	8.8 years	9.8 years	9.11 years	8.7 years	9.6 years	9.10 years
Note: Base Case: Chosen scenario Scn 1: Alternative scenario - increase of Open by 10% Scn 2: Alternative scenario - decrease of Revenue by 10%									

1.4. Implementation

The developer has already completed the technical feasibility study for the project and other legal project preparations. Construction and installation works will be contracted to qualified contractors. Construction period will take 6 to 12 months.

1.5 Management

Bugando Natural Energy Company Limited is a sole owner and main project developer. During implementation of the project, construction and installation will be contracted to qualified contractors. After construction and commissioning of the project, the company will have a project management team that will provide technical expertise, overall management and monitor development and performance of the project during its lifetime.

Project senior management who are responsible for driving the project implementation are:-

1. Joseph Azimio Jirabi (*Managing Director*)
2. Loycana Everiste Mwidunda (*Director*)
3. Bengiel Humphrey Msofe (*Electrical Engineer and technical project coordinator*)
4. Malimi Leonard Sitta (*Business Advisor*)

After construction and commissioning of the project, Bugando Natural Energy Company Limited will employ more supporting staff to manage efficiently the project. The supporting staff will include Operations Engineer, two Electrical technicians, Accountant, Store Keeper and office Assistant.

2.0 COMPANY DESCRIPTION

Bugando Natural Energy Company Limited is a Private Limited Company Registered under the Tanzanian companies Act of 2002 with registration No. 155015152 given on 7th February, 2022. The company has registered with the Tanzania Revenue Authority and assigned the TIN (Taxpayer Identification Number) 155-015-152. The company has all basic legal licenses and permits to operate businesses in Tanzania.

With other businesses, the company mainly focuses on the business of solar power energy production and deal with any other activities related to production of solar energy. In line to the Government goal, Bugando Natural Energy Company Limited has planned to construct and install a 5MW Solar power plant at Bugando Village, Chabula Ward in Magu District, Mwanza Region to contribute to the country's program on independent power producers (IPPs) to enhance power generation capacity in the country. The project will generate 13,863MWh of electricity per year and sell power to TANESCO under the guiding provisions of a 20 years Power Purchase Contract which has a base tariff of US\$ 0.07/kWh.

3.0 PROJECT DESCRIPTION

3.1 Project Overview

Over the past decade, in an effort to strengthen and modernize the energy sector, the Tanzanian government has undertaken a series of far-reaching policy reforms, including the establishment of a regulatory entity and the formulation of an energy policy that encourages private participation through independent power producers (IPPs) and small-scale power producers (SPPs). For SPPs, the government has defined rules, standard contracts and standard tariff methods to facilitate private sector participation in the development of grid-connected and off-grid projects, primarily for rural electrification. As a result of these initiatives, the IEPs and EPPs have contributed significantly to economic growth in many sectors, with the IEPs alone accounting for 40 percent of the national grid power generation capacity. In line with its investment in power generation capacity, the government has initiated projects to expand transmission capacity to deliver power to markets.

The proposed solar power plant in Magu in the United Republic of Tanzania will be developed on approximately 12.0000m² of land. The plant will have a total of 19.752 photovoltaic panels and a total power of 5MWp which will be able to produce 8,081 Mwh annually. This is equivalent to the electric consumption of 9000 Homes and will also avoid the release of 13702,365 tCO₂ (tons of CO₂) every year. The project development process will be in consultation with TANESCO's technical teams to ensure quality, sustainability and conformity to the commitments of TANESCO.

The project will be developed within the framework of a partnership of Bugando Natural Energy Ltd, (the Project Developer), our Technical Partners and the government of United Republic of Tanzania. Bugando Natural Energy Ltd specializes in turnkey solutions in the renewable energy sector on a commercial and large-scale level. Bugando Natural Energy Ltd covers the entire value chain, ranging from project development, construction, financing to operations and maintenance of renewable energy

systems in the East African region. Their expertise focuses on the technical and economical optimization of solar, biomass and hydro power plants.

3.2 Situation of the Installation

The photovoltaic power plant project is located in Bugando village, Chabula ward, Magu District, Mwanza in Tanzania. Bugando is a village in Tanzania with a population of approximately 2,790. Bugando is located south of Magu.



– Simulation report Grid-Connected System **Project:** BUGANDO

Variant : New Simulation Variant No 3D scene defined, no shadings **SystemPower:**8001kWp United Republic of Tanzania

3.3 Main Characteristics of the Project

The optimization of the use of the land will be done by the implementation of a photovoltaic plant on the ground, on definitively redeveloped sectors.

ProjectSummary			
GeographicalSite	Situation	ProjectSettings	
Bugando	Latitude	-1.88 °S	Albedo 0.20
TheUnited Republic ofTanzania	Longitude	34.12 °E	
	Altitude	1445m	
	Timezone	UTC+3	
Meteodata			
Bugando			
Meteonorm8.0 (1991-2007),Sat=100%-Synthetic			

System summary			
Grid-Connected System	No.3D scenedefined,no shadings		
PV Field Orientation	Near Shadings	User's needs	
Fixed plane	No Shadings	Unlimited load(grid)	
Tilt/Azimuth	10/0*		
Systeminformation			
PV Array		Inverters	
Nb.Ofmodules	22224units	Nb.Ofunits	62 units
Pnomtotal	8001 kWp	Pnomtotal	6200 kWac
		Pnomratio	1.290

Results summary					
Produced Energy	8812 MWh/year	Specific production	1919 kWh/kWp/year	Perf.Ratio PR	81.95%

PV Array Characteristics			
PV module		Inverter	
Manufacturer	DMEGC	Manufacturer	Huawei Technologies
Model	DM360-m156-72	Model	SUN2000-100KTL-M1-400Vac
(Original PV syst database)		(Original PV syst database)	
Unit Nom.Power	360Wp	Unit Nom. Power	100 kWac
Number of PV modules	22224units	Number of inverters	62 units
Nominal(STC) Modules	8001 kWp 1389Strings x 16in series	Total power	6200 kWac
		Operating voltage	200-1000V
At operating cond.(50 C)		Max. power(=> 30C)	110 kWac
Pmpp	7220 kWp	Pnomratio (DC :AC)	1.29
Umpp	564 V		
Impp	12793A		
Total PV power		Total inverter power	
Nominal(STC)	8001 kWp	Total power	6200 kWac
Total	22224 modules	Nb. of inverters	62 units

Array losses

Thermal Loss factor	DC wiring losses	Module Quality
LossModuletemperatureaccordingto %irradance	Global array res. 0.74m	Loss Fraction-0.8
Uc(const) 20.0 W/m2K	Loss Fraction 1.5 % at	
STCUv (wind) 0.0 W/m2K/m/s		
Module mismatch losses	Strings Mismatch loss	
Loss Fraction	Loss Fraction 0.1%	
IAM loss factor		
Incidence effect (IAM):Fresnel smooth glass, n=1.526		

0	30	50	60	70	75	80	85	90
1.000	0.998	0.981	0.948	0.862	0.776	0.636	0.403	0.000

Main results

System Production

Produced Energy 13,863MWh/year Specific production 1919 kWh/kWp/year

Economic evaluation

Performance Ratio PR 81.95%

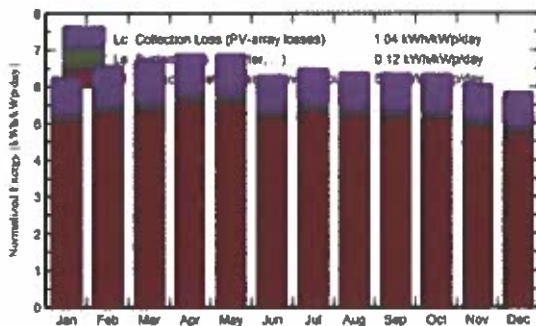
Investment

Global 8,125,700 EUR Yearly cost
 0.02EUR/kWhSpecific Annuities
 Paybackperiod

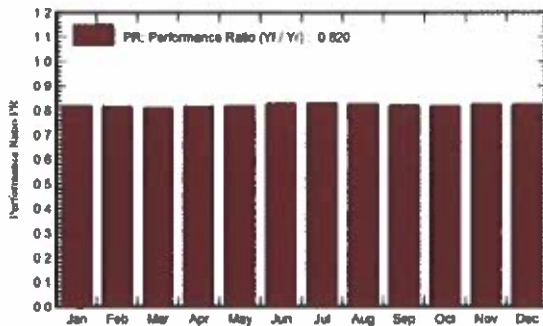
LCOE

Energy cost 1.02 EUR/Wp RunningCosts

Normalized productions (per Installed kWp)



Performance Ratio PR



Balances and main results

	Globhor kWh/m2	DiffHor kWh/m2	T_Amb C	GlobInc kWh/m2	GlobEff kWh/m2	EArray MWh	E_Grid MWh	PR ratio
January	210.1	60.0	22.3	193.6	186.6	1296	1268	0.818
February	192.8	55.0	22.9	183.5	178.0	1223	1196	0.814
March	209.6	59.9	22.7	207.5	201.9	1373	1342	0.808
April	200.1	53.4	21.9	206.8	201.6	1379	1347	0.814
May	199.4	47.2	21.9	213.1	207.7	1429	1397	0.819

June	174.2	52.7	21.4	188.7	183.7	1276	1248	0.827
July	186.8	54.2	21.4	201.0	196.0	1360	1330	0.827
August	188.9	62.3	22.0	197.6	192.5	1334	1304	0.825
September	189.9	67.7	22.0	190.9	185.5	1281	1252	0.820
October	203.9	67.6	22.5	196.3	190.1	1312	1283	0.817
November	195.1	61.1	21.6	181.6	175.0	1223	1196	0.823
December	197.6	63.5	21.9	180.7	173.4	1216	1190	0.823
Year	2347.8	704.51	22.03	2341.5	2272	15703	15352	0.820

Legends

Globhor	Global horizontal irradiation
DiffHor	Horizontal diffuse irradiation
T_Amb	Ambient Temperature
GlobInc	Global incident incoll plane
GlobEff	Effective Global, corr .For IAMand shadings
EArray	Effective energy at the output of the array
E Grid	Energy injected into grid
PR ratio	Performance Ratio

3.4 Financial Evaluation of the Solar Power plant

Based on the technical information provided for the rationale of development of a 5MWSolar power Plant project at Bugando village, Magu District in Mwanza Region, we have analyzed the financial projections of the project as presented in the following sections.

3.4.1 Key Assumptions

The financial plan depends on important assumptions presented here below:

Parameter	Value
Total project cost	1.00
Project construction period	6 to 12 Months
Plant capacity (Max generation per year)	13,863 MWh/year
Power degradation	0.5%
Power available for sale (year 1)	13,793.69 MWh
Plant life	25 years
SPPA tariff	0.07 US\$/kWh
SPPA contract period	20 years
Depreciation rate	5%
Inflation rate	4.5%
Discount rate (cost of capital)	15%
Insurance cover for PP&E	0.3%
Debt equity ratio	70:30
Loan repayment duration	15 years
Interest during construction (IDC)	6.5%

Interest after construction/commissioning	5 to 6%
Loan appraisal fee	1.28%
Loan grace period	1 year
Income tax rate	30% of EBT
USD to Tanzanian Shillings	2,330

3.4.2 Investment Structure

The estimated investment for the project is US\$ 6,005,642.10. The project developer is seeking for a loan from financiers amounting to US\$ 4,200,000.00 equivalents to 69.9% of the total investment; Grant of US\$ 225,000 and equity sponsor of US\$ 1,555,642.10 whereas US\$ 25,000 is the contribution of the developer to the project preparations. The loan we seek is a project loan secured only by the underlying catalogues and assets of the project. A summary of investment cost and financing structure of the project are presented in table 3.1 and 3.2 respectively.

Table 3.1: Project Investment Cost

S/No.	Cost Category	US\$	% of Costs
1.0	Project Preparation		
1.1	Preliminary works including technical consultancies on project preparations, Land and permits	250,000.00	4.16%
1.2	Appraisal fee for project financing	53,760.00	0.90%
	Sub-total	303,760	5.06%
2.0	EPC cost		
2.1	Engineering	350,000	5.83%
2.2	Procurement	3,711,420.94	61.80%
2.3	Construction	1,000,000	16.65%
2.4	Contingency (10% of EPC)	506,142	8.43%
	Sub-total	5,567,563.03	92.71%
3.0	Working Capital	134,319.06	2.24%
	Grand Total	6,005,642.10	100.00%

Table 3.2: Project Financing structure

Source of Fund	US\$	%
Developer's own equity	25,000.00	0.4%
Equity sponsor	1,555,642.10	25.9%
Grant from REA (PPSF)	225,000.00	3.7%
Loan	4,200,000.00	69.9%
Total Investment	6,005,642.10	100.0%

3.4.3 Operating costs after project commissioning

A summary of projected operating costs of the project for 10 years after commissioning is presented in table 3.3.

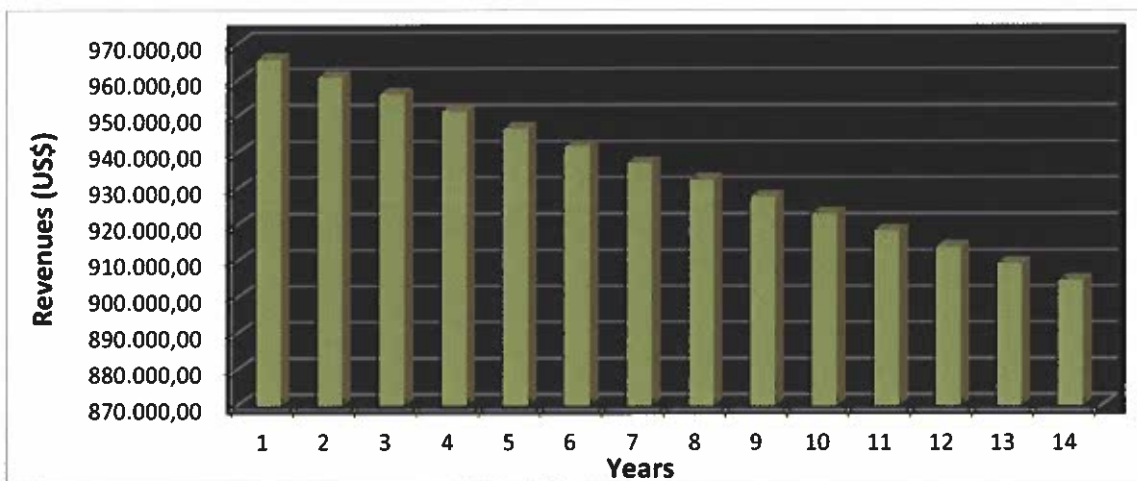
Table 3.3: Summary of Operating costs

S/No.	Category	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
1	Personnel cost	110,124.0	110,124.0	110,124.0	115,079.6	115,079.6	115,079.6	120,258.2	120,258.2	120,258.2	125,669.8
2	Stationeries	515.0	515.0	515.0	538.2	538.2	538.2	562.4	562.4	562.4	587.7
3	Office utilities	1,030.0	1,030.0	1,030.0	1,076.4	1,076.4	1,076.4	1,124.8	1,124.8	1,124.8	1,175.5
4	Repair and maintenance	55,675.6	55,675.6	55,675.6	58,181.0	58,181.0	58,181.0	60,799.2	60,799.2	60,799.2	63,535.1
5	Permits fee	3,500.0	3,500.0	3,500.0	3,657.5	3,657.5	3,657.5	3,822.1	3,822.1	3,822.1	3,994.1
6	Personnel on job training	4,000.0	4,000.0	4,000.0	4,180.0	4,180.0	4,180.0	4,368.1	4,368.1	4,368.1	4,564.7
7	Insurances	15,184.3	14,425.0	13,703.8	13,018.6	12,367.7	11,749.3	11,161.8	10,603.7	10,073.6	9,569.9
8	Services by outside providers	5,000.0	5,000.0	5,000.0	5,225.0	5,225.0	5,225.0	5,460.1	5,460.1	5,460.1	5,705.8
9	Travelling	10,000.0	10,000.0	10,000.0	10,450.0	10,450.0	10,450.0	10,920.3	10,920.3	10,920.3	11,411.7
10	Security costs	5,150.0	5,150.0	5,150.0	5,381.8	5,381.8	5,381.8	5,623.9	5,623.9	5,623.9	5,877.0
11	Other cost	2,575.0	2,575.0	2,575.0	2,690.9	2,690.9	2,690.9	2,812.0	2,812.0	2,812.0	2,938.5
	Total	212,754.0	211,994.7	211,273.5	219,478.9	218,828.0	218,209.6	226,912.9	226,354.8	225,824.6	235,029.7

3.4.4 Projected Revenues

Figure 3.1 gives the projections of revenues from sales of power generated. The revenue trend decreases from US\$ 1,067,187 in year one to US\$ 974,049 in year 14 of the project. This is because the SPPA tariff per kWh is assumed to be constant over the period and the energy generated decreases every year by 0.5% as power degradation.

Figure 2.1 Revenue projections



3.4.5 Projected financial statements (Profit & Loss, Cash flow and Balance sheet)

The projected Profit & Loss, Cash flow and Balance sheet are presented in table 3.4; 3.5 and 3.6 respectively.

Table 3.4: Projected Profit and Loss statement

Particulars	Years									
	1	2	3	4	5	6	7	8	9	10
Total Revenues	965,558	960,730	955,927	951,147	946,391	941,659	936,951	932,266	927,605	922,967
Total Operating Expenses	212,754	211,995	211,273	219,479	218,828	218,210	226,913	226,355	225,825	235,030
EBITDA	752,804	748,735	744,653	731,668	727,563	723,450	710,038	705,911	701,780	687,937
Depreciation (Book)	253,071	240,417	228,397	216,977	206,128	195,822	186,030	176,729	167,893	159,498
EBIT	499,733	508,318	516,256	514,691	521,435	527,628	524,008	529,182	533,888	528,439
Financing Expenses	465,950	465,950	465,950	465,950	465,950	465,950	465,950	465,950	465,950	465,950
EBT	33,783	42,368	50,306	48,741	55,485	61,678	58,058	63,232	67,938	62,489
Tax	10,135	12,710	15,092	14,622	16,646	18,503	17,417	18,970	20,381	18,747
Net Profit	23,648	29,658	35,214	34,119	38,840	43,175	40,640	44,263	47,556	43,742

Table 3.5: Projected Cash flow statement

Particulars	Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10
Net profit	-	23,648	29,658	35,214	34,119	38,840	43,175	40,640	44,263	47,556	43,742
Add Interest & amortization		465,950	465,950	465,950	465,950	465,950	465,950	465,950	465,950	465,950	465,950
Add Depreciation		253,071	240,417	228,397	216,977	206,128	195,822	186,030	176,729	167,893	159,498
Sub Inc. in Wc											
Cash from operations	-	742,669	736,025	729,561	717,046	710,918	704,946	692,621	686,942	681,399	669,190
Sub Investments	6,005,642										
Net Project Cash flows	(6,005,642)	742,669	736,025	729,561	717,046	710,918	704,946	692,621	686,942	681,399	669,190
Add New Loans	4,200,000										
Sub Loan repayments	-	465,950	465,950	465,950	465,950	465,950	465,950	465,950	465,950	465,950	465,950
Add Grants	225,000										
Equity Cash flows	(1,580,642)	276,719	270,075	263,611	251,096	244,968	238,996	226,671	220,992	215,449	203,240
NPV	8,377										
Equity IRR	10.1%										
DSCR	-	1.59	1.58	1.57	1.54	1.53	1.51	1.49	1.47	1.46	1.44
Payback period	8.5 yrs										

Table 3.6: Projected Balance sheet

Particulars	Years									
	1	2	3	4	5	6	7	8	9	10
ASSETS										
Non Current Assets										
Property Plant and Equipment	5,061,421	4,808,350	4,567,932	4,339,536	4,122,559	3,916,431	3,720,609	3,534,579	3,357,850	3,189,958
Current Assets										
Inventory	21,275	21,199	21,127	21,948	21,883	21,821	22,691	22,635	22,582	23,503
Debtors										
Bank	956,729	1,025,511	1,068,447	1,075,609	1,066,321	1,030,480	957,452	867,172	748,818	591,010
TOTAL ASSETS	6,039,425	5,855,060	5,657,507	5,437,093	5,210,763	4,968,732	4,700,753	4,424,387	4,129,250	3,804,470
EQUITY AND LIABILITIES										
EQUITY										
Owners Equity	1,580,642	1,580,642	1,580,642	1,580,642	1,580,642	1,580,642	1,580,642	1,580,642	1,580,642	1,580,642
Grants	225,000	225,000	225,000	225,000	225,000	225,000	225,000	225,000	225,000	225,000
Retained Earnings	23,648	29,658	35,214	34,119	38,840	43,175	40,640	44,263	47,556	43,742
CURRENT LIABILITIES										
Creditors										
Tax payable	10,135	12,710	15,092	14,622	16,646	18,503	17,417	18,970	20,381	18,747
LONG TERM LIABILITIES										
Bank loan	4,200,000	4,007,050	3,801,558	3,582,709	3,349,636	3,101,412	2,837,054	2,555,512	2,255,670	1,936,339
TOTAL EQUITY AND LIABILITIES	6,039,425	5,855,060	5,657,507	5,437,093	5,210,763	4,968,732	4,700,753	4,424,387	4,129,250	3,804,470

3.4.6 Sensitivity Analysis

The sensitivity analysis of the project was done to check the variation on the projected project performance under given circumstances. First, by increasing operating expenses by 10% and Secondly, by decreasing revenues by 10%.

First: increasing operating cost by 10%

The following table shows the results of the sensitivity analysis when operating costs are increased by 10%.

Table 3.7: Increasing operating cost by 10%

Index	Base	Impact
Internal Rate of Return (IRR)	10.1%	10.1%
Net Present Value at a discount rate of 10% (in US\$)	8,377.29	12,375.22
Payback period (Year)	8.5	9.7
Debt Service Cover ratio (DSCR)	> 1	> 1

The above analysis refers to the feasibility of investment in the project, in light of increasing operating cost by 10%. It is noted that:

- The internal rate of return did not change, and it is above the cost of capital.
- The Net Present Value increased to positive value still indicating good return on the investment.
- The payback period increased to 9.7 years which is reasonable for recovery purposes
- The Debit Service Cover Ratio for the whole period of loan is greater than 1 indicating that the cash flow out weigh the cost of financing.

Second: Decreasing Revenues by 10%

The following table shows the results of the sensitivity analysis when decreasing revenues by 10%.

Table 3.8: Decreasing revenues by 10%

Index	Base	Impact
Internal Rate of Return (IRR)	10.1%	10.1%
Net Present Value at a discount rate of 10% (in US\$)	8,377.29	14,310.22
Payback period (Year)	8.5	9.11
Debt Service Cover ratio (DSCR)	> 1	> 1

The above analysis shows the feasibility of the project in light of decreasing revenues of the project by 10%. It indicates that:

- The internal rate of return remained the same (10.1%), which is above the cost of capital of 10%.
- The Net Present Value increased to a positive value indicating good return on the investment

- The new payback period is 9.11 years, and it is reasonable for recovery purposes.
- The Debt Service Cover Ratio for the whole period of loan is greater than 1 indicating that the cash flow outweighs the cost of financing.

Based on the sensitivity analysis, it can be concluded that given worse scenarios on the financial projections, the proposed project has positive NPV at a discounting factor of 10% with IRR greater than the cost of capital, a payback period of not more than 9.8 years, and a Debt service ratio of greater than 1. With this analysis and considering the nature of the project, financing the project is therefore highly recommended.

Refinancing of the project post construction is proposed. The financial performance of the project during construction and post construction is as summarized in table 3.9.

Table 3.9: Summary of Project Financial performance during and post construction period

Summary of Project Financial performance									
Parameters	Base Case: During construction (6.5% interest rate)			Post construction refinancing (5% interest rate)			Post construction refinancing (6% interest rate)		
	Base Case	Scn 1	Scn 2	Base Case	Scn 1	Scn 2	Base Case	Scn 1	Scn 2
NPV	8,377.29	12,375.22	14,310.22	38,023.84	34,247.18	8,768.69	116,668.03	9,725.55	42,616.95
Equity IRR	10.1%	10.1%	10.1%	12.10%	11.1%	10.2%	15.30%	10.3%	11.00%
DSCR	> 1	> 1	> 1	> 1	> 1	> 1	> 1	> 1	> 1
Payback period	8.5 years	9.7 years	9.11 years	8.8 years	9.8 years	9.11 years	8.7 years	9.6 years	9.10 years
<p>Note: Base Case: Chosen scenario Scn 1: Alternative scenario - increase of Open by 10% Scn 2: Alternative scenario - decrease of Revenue by 10%</p>									

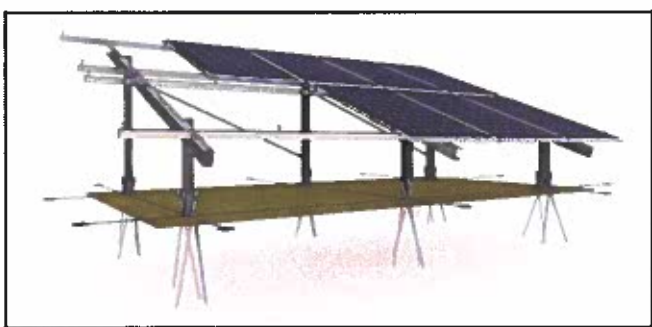
3.5 Land agreement

The land acquisition for the identified parcels will be done by the project developers. The entire parcels intended for the solar power station will be available for the project.

3.6 Technical presentation

The solar power plant, with a fenced area of about 12,000m², consists of 19,752 photovoltaic modules with an expected unit power of 405 Wp. The supports are arranged in continuous, parallel and spaced lines in order to optimize the connection.

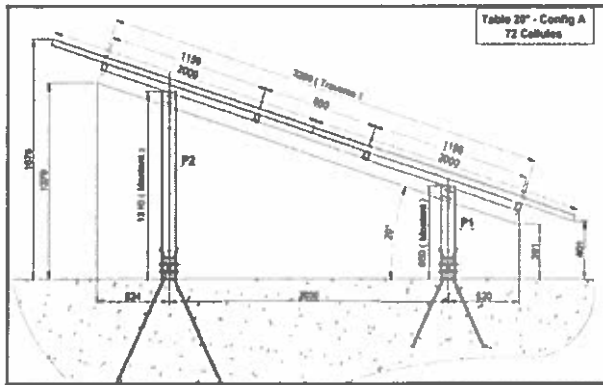
3.6.1 Supporting structures



As we cannot anticipate the evolution of technologies and therefore the precise characteristics of the components of the modules or supporting structures

(dimensioning) that will be used at the time of the dimensions construction of the power plant, realistic standard known today have been used to carry out the design of the solar park and the calculation of the right-of-way and production. If the dimensions of the tables can be slightly different at the time of the construction, the number of tables installed will be adapted to respect the global right-of-way of the park, the locations and dimensions of the tracks and the electrical buildings. Thus, if the tables use dare longer, the number of tables will be reduced, and vice versa. It is therefore possible to conclude that the rights-of-way of the panels and therefore their impacts, will remain globally the same.

3.6.2 Sectional drawing of the structures

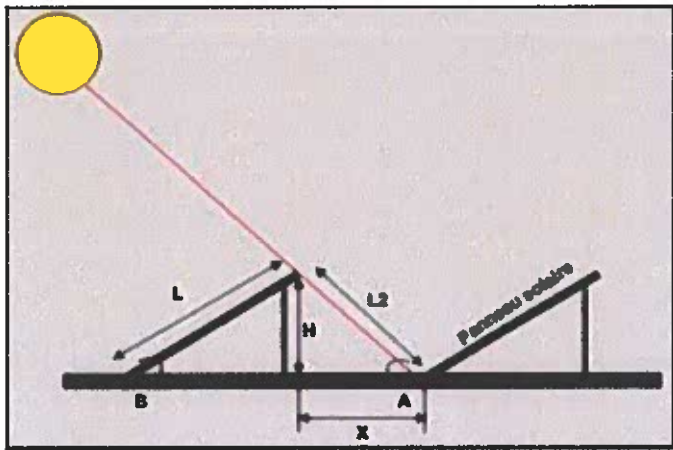


For ease of maintenance and construction, the solar power plant will be composed of single fixed length structures, regardless of the location on the site. Fixing with a perforator avoids the presence of construction machinery and concrete work. Impact on the ground. Materials are recyclable and reusable. The carbon footprint is reduced.

A minimum ground clearance of 0.8 m will facilitate the maintenance of the site and allow small fauna to circulate freely. This ground clearance also allows sunlight to pass under the modules. This diffuse light reaches the ground level and allows the vegetation to develop. Similarly, the fixed structures have a relatively modest height. For the sake of landscape integration, the height of the panels in relation to the ground will be a maximum of 3.5m.

The photovoltaic panels are mounted in series on the structures, facing due south and with an inclination of about 15°. Each structure (or table) is 17.1 m long and 6 m wide. A sufficient distance between each row is provided to reduce the shadow effect with the previous row.

3.6.3 Layout optimization scheme



3.6.4 Distribution substations

The distribution substations are prefabricated concrete buildings (or containers with thermally insulated steel walls) with a maximum surface area of 28.5 m² each, i.e. 85.5 m².

The following equipment is installed in these buildings: inverters that transform the direct current produced by the modules into alternating current; a transformer that raises the voltage at the output of the inverters to a voltage acceptable to the network (20kV). These substations comply with current electrical standards (C13-200inparticular).



Examples of concrete and container distribution substations

3.6.5 The delivery structure

The delivery structure is the interface between the public distribution network and the internal network of the solar power plant. In particular, it houses the means of protection (circuit breakers), energy metering, supervision and control of the solar power plant.

The delivery structure consists of two prefabricated concrete buildings that comply with current standards (C13-100). Each building has a maximum surface area of 40 m², i.e. 80m² in total.

The first building includes an electrical delivery station standardized ENEDIS and the control systems of the park while the second includes an electrical filter tuned to the frequency of the tariff signal (175Hz).

3.6.6 Cable networks

Inside the solar plant , the following cable networks will be installed:

- (a) **Electrical Cables:** They are intended to transport the energy produced by the modules to the distribution substations and then to the delivery structure.
- (b) **Fiber Optics:** It allows the exchange of information between each distribution substation and the computer room (SCADA), located in the delivery structure. An internet connection also allows remote access to this information.
- (c) **Grounding:** Made of copper cables ,it allows :
 - i. Grounding of metallic masses,
 - ii. Setting up the neutral system,
 - iii. As well as the evacuation of possible lightning strikes.

3.6.7 Access roads and crane areas

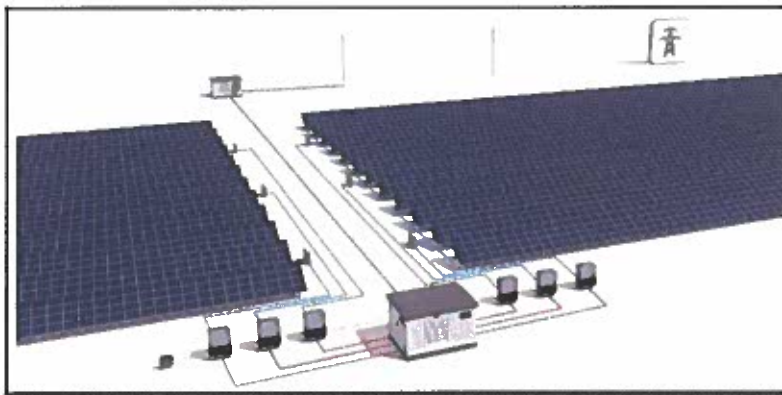
Access to the site will be from the road network. Within the park, gravel tracks will be created to access the installations (modules, distribution substations). In front of the delivery structure and the distribution substations, craning areas will be created in order to lift the substations. A natural permeable material such as GNT (Grave Non Traitée) will be used to stabilize these surfaces (750 m²in total). The spaces between rows of panels, intended to limit shading, will not be paved, but will also allow access to the installations for maintenance operations.

3.6.8 Connection to the national electrical network -S3RER

The electrical connection to the existing public distribution network is defined and realized by TANESCO or the public distribution network manager of the area, which is the project manager and the project owner. Indeed, the connection works necessary for the evacuation of the generated electricity constitute an extension of the public distribution network. Thus, this network can be used to connect other consumers and/ or producers.

The electrical connection is underground according to the standards in force. The route is generally

along the roadside. Although public, the costs inherent to the creation of this network (studies and installation) are entirely at the charge of Bugando Natural Energy Ltd.



Network solar power plant connection

3.7 The construction of the park-progress of the site

3.7.1 General

The construction site of the solar power plant will take place in several stages spread over approximately 6 to 12 months. The number of workers planned for the duration of the construction site is about 70 people per day on average with about 100 people in peak periods. All the material will be transported by truck. The construction of the solar park will thus generate an average of five trucks per day for the duration

Of the construction site.

Safety and environmental protection rules will be set for the various service providers working on site. The ROFACE11 will indicate the rules of good environmental conduct concerning, in particular, the prevention of accidental pollution risks, the use of space, noise and dust, traffic on the roads and the restoration of accesses. It can be annexed to the ZBS Investments prevention plan. Throughout the construction site, particular attention is paid to waste management. This waste is sorted (recyclable or not) and grouped in adapted containers.

3.7.2 Site preparation

The site can be prepared prior to the start of construction and then surfaced if necessary. A working meeting to organize the work will be setup. This will assist to:

- i. Understand the environmental constraints of the site.
- ii. Prepare the documents related to the safety of the system: Prevention plan, traffic plan
- iii. Study the possibility of installing a life base for the duration of the works
- iv. Optimize the areas necessary for the teams and the plant (parking, waste sorting, water point in case of fire...) with the municipality

The fence and the life base will be set up at the beginning of the construction site, access will be strictly reserved to authorized persons only. The living base, with an area of about 1500 m², allows to accommodate the contractors for the construction period of the solar power plant and constitutes a storage area. The living base is composed, among others , of the following elements:

- i. Site office(s)
- ii. A changing room -refectory;
- iii. A sanitary block equipped with a double wall septic tank;
- iv. A container(s)for equipment and tools;
- v. The creation of a parking area for vehicles and construction machinery;
- vi. The creation of a waste zone. Waste bins will enable selective sorting of the different categories of waste produced. They will be regularly emptied and the waste sent to approved treatment centers, the establishment of a zoning intended to receive the different categories of materials in transit. Thus, specific waiting areas will be created, whether it is earth or other materials.

3.7.2.1 Construction of roads, craning areas and platform for the water tank

The internal tracks of the power plant as well as the craning areas of the electrical substations will be paved by adding natural materials, of the GNT (Grave Non Traitée) type, compacted in layers to support the weight of the machines. These surfaces will therefore not be water proofed. The need in terms of fire extinguishing water is 120m³.The practice is to install a tank on a platform of about 135m², protected by a sand bed and/or an anti-puncture geotextile. The access to the equipment of the plant will be assured by a peripheral track. It will be about 6m wide, including 5m of tarmac. The tracks can be widened if necessary in the curves to facilitate the passage of more cumbersome vehicles. The modules will be slid one by one, manually, into the rails of the metal structures. This technique makes it possible to install large quantities of modules quickly and to significantly shorten the overall construction time.



3.7.2.2 Installation of cable networks

The electrical lines necessary to transport the energy to the point of delivery to the network will be installed along the metal structures or underground. Fiber optic communication and grounding

networks will be buried. The trenches will be dug with a mechanical shovel or trencher, preferably along the edge of the runway in order to minimize the footprint of the work. Once the cable is unrolled in the trench, the trench will be back filled and compacted. Sand may be added to the trench to protect the buried cables.

Excavated materials will be reused for backfill if their mechanical properties permit. Otherwise, they will be reclaimed on site to avoid their disposal. The dimensions and installation method of the cables will be verified by an independent inspection body before the park is commissioned.

Burying the cable using a trencher



3.7.2.3 Installation of electrical substations

The location of the delivery station and the electrical stations will be defined with the operator and the technical management of the storage pole. Its implementation will be adapted to the chosen location (redeveloped area, constrained zone, etc.).

An excavation will be carried out to a depth of approximately 80 cm. The electrical substations will be placed on the sand bed with the help of a crane so as to bury about 60 cm of them. This buried part will be used for the passage of the cables of the on-site networks inside the substations. The excavated materials will be reused for backfilling if their mechanical properties allow it. Otherwise, they will be reclaimed on site to avoid their disposal. At the exit of the solar power plant, at the level of the delivery structure, a link with the public electricity network will be realized by TANESCO.



3.7.2.4 Installation of an electrical substation

The solar power plant will require the installation of transformer-inverter stations and 1 delivery station. The layout of these elements will be studied in order to improve the insertion in the landscape, in particular according to the various points of view on the site. The connection of the installation to the electrical distribution network is done through cables allowing the evacuation of the produced energy.

The electricity produced by the photovoltaic plant will be routed in low voltage (LV) to the distribution substations (inverters/transformers) where the DC voltage will be transformed into AC voltage (role of the inverter) and then raised to the voltage level required by TANESCO (role of the transformer).

In order to minimize energy losses associated with the transmission of electricity, the distribution substations will be inside the park. Once raised to the voltage level of the public distribution network, the energy will be collected from the distribution substations to the delivery station at the property line to ensure access for the operating personnel. There, the energy is metered and then injected into the public grid through a cable connecting the photovoltaic plant to the TANESCO source station.

3.7.2.5 Making the connections

The modules will be connected in series to form a string. Then the strings, grouped in parallel in the connection boxes, will be connected to the electrical substations.



Photovoltaic plant

Left : Wiring of the panels- Right: Connection box

3.7.2.6 Tests

Prior to commissioning, operational tests will be carried out. They aim to ensure the proper functioning of all components of the plant from an electrical and remote control (supervision) point of view.

3.7.2.7 Commissioning and withdrawal of the site



If the tests are favourable, the plant will be commissioned. The base camp will then be dismantled: the buildings will be moved to another site; the logistics platform will be dismantled; the site where the base camp was installed will be restored.

3.7.2.8 Site maintenance

There will be security guards on the site. On the other hand, the plant will be equipped with a permanent video surveillance system and a remote management system of the installation from our company's headquarters. This system allows us to be warned in case of failure and to react quickly for corrective maintenance operations.

The main activities during the exploitation phase will be the analysis of the data recorded by the acquisition unit (incident solar energy, temperature of the modules, energy produced, energy injected into the network;

- The visual control of the modules and structures, the possible detection of objects masking
- The cells (cardboard, plastic);
- The verification of the state of the cables and connectors;
- Checking the condition of the connection boxes;
- Verification of the structure and modules resistance;
- Electrical tests of the strings;
- Verification of the inverters, possibly infrared thermography of the protection cabinets;
- Verification of the cell and electrical connections;
- Verification of the electrical protections, lightning protections, continuity of the ground and ground connections.

3.7.2.9 Maintenance of the installation

A natural recovery of the vegetation in front of the panels will allow the maintenance of a low grass cover, a stabilization of the dust and thus the prevention of any possible flight of particles.

This cover will be mowed regularly, planned according to the regrowth of the vegetation and the commitment to biodiversity (late mowing, for example). A light machine will be used between the paths and a brush cutter will be used under the modules. No phytosanitary products will be used in the plant. Maintenance can also be done by sheep. No cleaning of the panels is envisaged. Indeed, the natural action of the rain ensures a priori a sufficient washing of the panels. The practical aspects of the maintenance will be in accordance with the environmental measures of the plant.

3.7.2.10 Security

The site will not be open to the public for security reasons. Thus, the entire site will be fenced. Gates will allow access to the site for maintenance teams and the fire department. In order to ensure the security of the site, different equipments will be planned: Video surveillance; fencing on the entire project.

3.8 Choice of Photovoltaic Modules

At this stage of development, the choice of module supplier has not yet been made. This choice is based on several criteria:

- The price of the module
- The origin of the module to guarantee a good carbon balance
- The supply of modules in sufficient quantity at the right time

3.9 Work Phase

The actual construction of a photovoltaic park consists of two main phases, each with several sub-phases. Preparation of the site: installation of the base camp (4 weeks), civil engineering/levelling (3 weeks), securing the site (2 weeks).

- Installation of structures ,solar module sand electrical components
- Establishmentoffoundations(drivenordrilledpilespreferred-5weeks),
- Installation of electrical cables (8 weeks), installation of structures and modules (8 weeks),installationofelectrical equipment(7weeks)andrevegetationofreworkedareas(4weeks)

3.10 Operation Phase of the Plant

The photovoltaic installation is planned to be operated for a period of 30years.TheBugando photovoltaic park will be added to the computerized supervision platform of the Bugando installations in operation for:

- Control in real time the production of the installation,
- Track incidents remotely,
- Manage break downs and unavailability (networkdecoupling,electricalfaults),
- Plan maintenance interventions,
- Control the security of the park (technical security,intrusions)

3.11 Dismantling phase of the plant at the end of the operating period

3.11.1 Dismantling of the plant

Bugando Natural Energy Ltd, commit itself that at the end of the exploitation, to dismantle the whole installation and to recycle all the elements that can be recycled, in accordance with the regulatory conditions in force or to come.The dismantling of a photovoltaic power plant,due to the materials that constitute it and its configuration, is not complex. Moreover, all the materials used (steel, aluminum, copper) are recyclable. The plant contains little concrete (stringers, slabs or others), only the feet of the fence posts are to be taken into account. No solvent or soil treatment product is used.

The dismantling of the plant will start at the end of the operating period and will be carried out in common agreement with the municipality. The main operations are listed below:

- Fences, photovoltaic modules, and structures will be directed to the recycling channels via the appropriate collection systems or recovered for recovery;
- The concrete mass of the fences will be removed with as hovel and the anchors as well;
- The cables will be extracted from the trenches, and the substations will be sent to the supplier of the electrical equipment, who will take care of their recycling, including the SF6gasfromthe cells and the oil from the transformers;
- Developments will be removed with gentle scraping of deposited material for tracks;
- Once all the elements have been dismantled, they will be repackaged into parcels in order to be transported to the collection points for recycling.

3.11.2 Recycling of power plant components recycling of modules

The recycling of crystalline silicon modules consists of a simple heat treatment to separate and recover the components including precious metals (aluminum, copper and silver). The plastic such as the film on the back of the modules, the glue, the gaskets, the cables heat sand the connection box are also burnt.

Once these operations are completed 84% of the product mass is resold, while the plastic polymers are reused for manufacturing. Once separated from the modules, the cells undergo a chemical treatment that removes the metal components. These recycled wafers are then:

- Integrated into the cell manufacturing process and used for the manufacture of new modules,
- Either melted and integrated in the manufacturing process of silicon ingots.
- The end-of-life recycling of photovoltaic panels has become mandatory in France since August 2014.

The recast of the WEEE Directive- 2002/96/EC has resulted in the publication of a new version where end-of-life photovoltaic panels are now considered as waste electrical and electronic equipment (WEEE) and enter the WEEE recovery process

The principles:

- Producer responsibility (manufacturer/importer): collection and recycling operations and their financing are the responsibility of manufacturers or their importers established on French territory, either individually or through collective systems.
- Free collection and recycling for the end user or holder of end-of-life equipment.
- Setting up a financial guarantee for future collection and recycling operations when a product is put on the market. In France, the European association PV CYCLE, through its French subsidiary, is responsible for collecting this tax and organizing the recycling of modules at the end of their life.

Founded in 2007, PVCYCLE is a European non-profit association, created to implement the commitment of photovoltaic professionals on the creation of a recycling channel for end-of-life modules. Today it manages a fully operational collection and recycling system for end-of-life photovoltaic panels through out Europe.

The collection of crystalline silicon modules and thin films is organized according to three processes:

- Containers installed at hundred of collection points for small quantities,
- Customized collection service for large quantities,
- Transport of the collected panels to recycling partners by certified companies.

The collected modules are then dismantled and recycled in specific factories and reused in the manufacture of new products.

3.11.3 Recycling of inverters

The European directive no. 2002/96/CE(WEEEorD3E) modified by the European directive no.2012/19/UE, concerning waste electrical and electronic equipment, was adopted within the European Union in2002.

Since 2005, it obliges manufacturers of electronic equipment, and therefore UPS manufacturers, to collect and recycle their products at their own expense.

3.11.4 Recycling of the materials

The other materials resulting from the dismantling of the installations (concrete, steel) will be recycled through the traditional channels. Metal parts that are easily recyclable will be recovered as raw material. Inert waste (gravel) will be reused as backfill for new roads or foundations.

3.12. Management and Manpower

3.12.1 Management and staffing

Project senior management team who are responsible for driving the project development & implementation are:-

- 1. Joseph Azimio Jirabi (Managing Director):** He is a renewable energy specialist with an experience spanning 30 years, He hold an Energy Engineering degree from Aalborg University, Esbjerg Denmark. He has been working in renewable energy field especially waste to energy projects (sublimation system) at www.frichs.com, hydro projects and solar power projects. He is currently the Managing Director of Bugando Natural Energy Ltd.
- 2. Loycana Everiste Mwidunda (Director):** She is a Certified Professional Accountant with over 30 years of experience of providing comprehensive high quality Public Finance and accounting support services to various institutions in United Republic of Tanzania. Utilizing her expertise in finance and operational management, she has been pivotal in insuring businesses are equipped with tools necessary to meet aggressive sales and growth plans. She is an expert on project management, forecasting, identifying new market opportunities and implementing internal control to ensure adherence to compliance whilst minimizing business risk. She holds a Msc International Banking and Finance (University of Salford England): CPA (T), Diploma in Project Monitoring and Evaluation (Galilee Institute of Management – Israel), Diploma in Project Management – World Bank tailor made programme (University of Lilongwe Malawi).
- 3. Bengiel Humphrey Msofe (Electrical Engineer and technical project coordinator):** He is a professional Electrical Engineer registered by the engineers registration board as an independent Consulting Engineer (Renewable Energy) with Reg. No. ICE 018 and Professional Engineer with Reg. No. PE 1827. He is working as an independent consulting Engineer mainly in

feasibility studies, power market assessments, connections to end users, construction of energy projects, transmission and distribution lines. He has a vast experience in the energy sector working with various organizations both public and private organizations. He worked as a director for Technical services at the Rural Energy Agency (REA) for 10 years, worked for TANESCO in various positions such as Project Engineer, senior electrical engineer, Regional Manager, etc. Mr. Msofe also has good experience in working with private organizations. He worked with United Nations Capital Development Fund (UNCDF) as a contractor; Semkeret as Electrical Engineer, China Railway Construction Electrification Group (CRCEBG) Co. Ltd as Senior Advisor and Supervision engineer, etc. Mr. Msofe has relevant qualification and experiences in the energy sector. He holds a MBA (Corporate Management), Mzumbe University; Postgraduate Diploma, Norwegian Institute of Technology (NTH) University of Trondheim, Norway; Bachelor of Science Engineering (Hons)(Electrical), College of Engineering and Technology (CoET), University of Dar Es Salaam, Tanzania; and Diploma in Efficient Energy Use and Planning, Life Academy, Sweden.

- 4. Malimi Leonard Sitta (Business Advisor):** He is an Economist specializes in business development and advisory services, He is an experienced provider of businesses development services with over 15 years, experience in practice. He holds MSc. Agricultural Economics in Agribusiness from Copenhagen University-Denmark. He has provided a number of business consultancy services on renewable energy projects; few to mention include Mawengi 300kW small hydropower project in Ludewa District (completed), Lupali 317kW small hydropower project in Njombe District (under construction), Ijangala 240kW small hydropower project in Makete District (under construction), Lunyamacho 3MW min hydropower project in Ludewa District (under development), Lyamanzi 3MW min hydropower project in Makete District (under development), Isigula 407kW small hydropower project in Ludewa District (under development) and Extension of distribution network of Madope 1.7MW min hydropower project in Ludewa District (under development). The services provided by Mr. Malimi L. Sitta across the sectors include, feasibility studies, Market surveys, Bankable Business plans development, financial and procurement management, Business valuations and Entrepreneurship training.

3.12.2 Supporting staff

Bugando Natural Energy Company Limited will employ the following people after construction and commissioning phase:

1. Operations Engineer: During project implementation and will be reporting to the Managing Director. The operations Engineer will be an overall in charge of the project responsible for all operations and periodic maintenance activities.
2. Two (2) Electrical Technicians: They will be responsible for inspection and maintenance of the plant as planned by the Engineer.
3. Accountant: After project commissioning – responsible for all accountancy functions.
4. Store-keeper: During project construction and will be responsible for store records

5. Office Assistant: after project commissioning and will be responsible for office works as directed by the managing Director.

4.0 COMPATIBILITY OF URBAN PLANNING DOCUMENTS

4.1 Bringing the POS into conformity

The application for a building permit for the implementation of the photovoltaic power plant will be submitted by Bugando Natural Energy Ltd. An application for a town planning certificate will be made. This certificate freezes the town planning rules in force at the time of its request. Consequently, it can only guarantee that the town planning rules applicable to the land, the administrative limitations to the right of ownership and the taxes due will not be called into question. In any case, it does not exempt the project owner from the building permit application procedure.

4.2 Justification and Reason for Choosing the Project

Bugando Natural Energy Ltd

has been working on the territory to find land that can accommodate renewable energy production units. The search for optimization of the production and the avoidance of sensitive environments prevailed during the reflections carried out. Three variants were studied, the maintenance of the ecological functionality of the site, the respect of the mining risks, the respect of the urbanism and a good landscape integration having been the guideline for its conception.

Moreover, the implementation of a photovoltaic power plant on this site does not affect the preservation of agricultural areas. According to the MEEDDM circular of December 18, 2009 on the development and control of ground-mounted photovoltaic power plants, "ground-mounted power plant projects are not intended to be installed in agricultural areas, particularly those that are cultivated or used for livestock. The project of a ground-mounted photovoltaic power plant on the Bugando site therefore has many assets and that Bugando Natural Energy Ltd has been convinced by the enthusiasm of the project leaders.

4.3 Texts Governing the Public Inquiry & Integration into The Global Procedure

4.3.1 Purpose of the Survey

The public inquiry procedure is provided for in Article L123-1 of the Environmental Code: "The purpose of the public inquiry is to ensure public information and participation as well as the consideration of the interests of third parties during the preparation of decisions likely to affect the environment mentioned in Article L. 123-2. The observations and proposals collected during the inquiry are taken into consideration by the project owner and by the authority competent to take the decision.

NOTE: These provisions apply to projects, plans, programs or other planning documents for which the order opening and organizing the public inquiry is published as of the first day of the sixth month after the publication of the decree in Council of State provided for in Article L. 123-19 of the Environmental Code."

The Public Inquiry is carried out within the framework of the impact study required to obtain a building permit for a ground-mounted photovoltaic power plant.

4.4 Regulations Applicable to the Implementation of a Photovoltaic Plant

The installation of photovoltaic devices is subject to several regulations (town planning code, building code, environmental code, electricity law...) and requires a certain number of prior steps depending on the type of installation. Since 2009, ground-mounted installations with a power of more than 250 kWp are subject to restrictive procedures in order to ensure that they have the least possible impact on the landscape, the environment and town planning.

4.4.1 Procedures for urban planning

Prior note: the installation of a photovoltaic device must be compatible with the town planning regulations in force (POS, PLU, national town planning regulations). In case of incompatibility, these documents must be modified. Building permit for any plant over 250 kWp

4.4.2 Procedures for the environment

Depending on its size and location, a photovoltaic installation is subject to several environmental procedures: Environmental impact assessment: ground-mounted installations with a capacity of more than 250 kWp are subject to an environmental impact assessment (Reference texts: decree 2009-1414 of November 19, 2009, articles R122-8 of the environmental code). Public inquiry: ground-mounted installations with a power of more than 250 kWp are subject to a public inquiry as part of the building permit procedure (Reference texts: decree 2009-1414 of 19 November 2009, article R.123 of the environmental code). Contact: Regional Direction of Ecology, Development and Housing (DREAL) of the location (Reference text: circular of December 18, 2009 framing the requirements to be met for ground-based power plants).

The latest ICPE authorization requests and the various biodiversity monitoring will be an important source of information.

4.4.3 Steps to take for electricity The Procedure

In order to obtain the right to build and operate this photovoltaic power plant, Bugando Natural Energy Ltd must follow the "call for tender" procedure of the Commission de Régulation de l'Energie (CRE). Within this framework, it is the candidates who propose a "purchase price" in/kWh. The terms and conditions for the selection of applications and the commitments of the applicant are specified in the specifications. This call for tenders is established in application of the Energy Code:

- Section 30 of Chapter I of Book III of the Legislative Part
- Section 2 of Chapter I of Book III of the regulatory part.

4.4.4 Opinion on the Project

The notices will be inserted by the State services after instruction.

4.4.5 Procedures Concentration

Several awareness actions will be set up in order to make this project known to as many people as possible. Bugando Natural Energy Ltd will take care to call the press in order to inform the public.

5.0 COMMUNICATIONACTIONS

- Press article
- Internet communication through the blog of the solar power plant of the council
- Public meetings
- Project presentation leaflets

6.0 CONCENTRATION ACTIONS

A consultation and information meeting with the inhabitants and the elected representatives will be jointly organized by the council and Bugando Natural Energy Ltd.

Posters will be put up in the council hall and in the council's sub offices. The elected representatives and Bugando Natural Energy Ltd will also carry out a mass distribution of a letter inviting the inhabitants to participate in the consultation meetings.

Assessment of the consultation will be done to give the Bugando Natural Energy Ltd team an opportunity to answer the various questions on the choice of the project location, the development phases and, at the end of the meeting, to gather the support shared by a large majority of the members present.

7.0 OTHER AUTHORIZATIONS NECESSARY FOR THE REALIZATION OF THE PROJECT

7.1 Land Clearing Authorization

The ground-mounted power plant project will in principle not be required to obtain a forest clearing permit. Compensation measures will be carried out within the framework of this authorization, i.e. the reforestation of certain plots of land if necessary.

7.2 Request for Derogation of Protected Species

Following the clearing authorization and the opinion of the Environmental Authority, a file will be implemented to respond to the instruction of a request for exemption from the protection of species in the context of this project.

As these are independent regulations, in addition to the issuance of this clearing authorization and the future building permit, the issuance of the derogation to the protection of species (which would require in this case an opinion of the National Council for the Protection of Nature) will be a prerequisite to any start of the project.

ANNEXES

Separately attached documents

- 1) Certificate of incorporation
- 2) Tax Identification Number (TIN)
- 3) NEMC Approvals on Environment Impact Assessment (EIA)
- 4) TANESCO - SPPA Letter of intent (LOI)
- 5) Land Right of Occupancy
- 6) Feasibility study
- 7) Other supporting documents
- 8) Meteorological Input Data
- 9) Interconnection Study
- 10) Engineering Assessment
- 11) Soil Test