

# Information Teaser

## **20MW PV plant Simbrofo, Ghana**



August 2017

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## Executive summary

### Project Financials:

Total funding requirement:	<u>US\$28.8 million</u>
Long term debt to be provided via EPC	US\$18.8 million
Unsecured debt provided by commercial investor	US\$10.0 million



Simbrofo in Ghana has a good natural sun resource, which makes solar PV a competitive and reliable source of clean, renewable energy. The project is situated in Gomoa, Simbrofo, in the eastern region of Ghana.

An expected Feed-In-Tariff of US\$0.0995 KWh has been discussed and will provide a solid revenue stream to the project with a 1.89 average debt service coverage ratio.

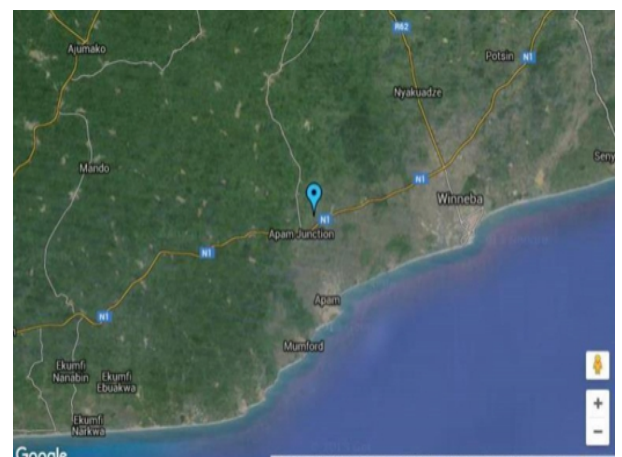
- We will build out the project with a capacity of 20MW with an annual power production of 55,000 MWh, based on top quality, reputable equipment suppliers and an experienced design and installation team to provide the reliable and long lasting productivity and plant availability. Life expectancy with planned maintenance will materially exceed 20 years.
- Projected CO<sub>2</sub> emission reduction of 480,000 tonnes over project lifecycle.
- Local job creation; 200 construction phase labourers and 40 ongoing technicians – with on-site training and further education courses supported by three UK universities.
- On-going free electricity to local communities and local infrastructure spend to provide a school and library, irrigation for food production via PV water pumps and PV street lighting.
- We expect to secure a very favourable long term (12-year) loan of US\$18.8 million at 4.5%pa, provided by the Polish Government to support export of Polish companies.
- We expect to finalise the funding package with an unsecured project loan of US\$10.0 million from a commercial investor group.
- The project mathematics are showing an expected Internal Rate of Return (IRR) of 9.15% and a Return on Investment (ROI) of 13.91%.
- The United Nations Renewable Energy Performance Platform (REPP) have reviewed the project and provided their written commitment to partner and provide expert support as and when required.
- The United Kingdom Government Department of Trade and Industry are providing support to the project and action plans are in place.

We are confident we can deliver a very high quality project which will benefit both lenders and the local community. It can become a valuable platform for developing additional projects in the future; **three mirror projects are being prepared in the region** to follow quickly on from a successful roll-out of the first Simbrofo project.

## Project timelines

Indicative Implementation plan completed and future activities

- a) 2015 - Land Lease Agreement signed (300 acres): actual project area 100 acres of unused fallow land, mostly savannah terrain
- b) October 2015 - SPV formation & Registration in Ghana - Simbrofo Light Ghana Ltd
- c) 2016 – Feasibility study completed by PTL Technologies
- d) October 2016 – UK holding company registered - Simbrofo Light Ghana Ltd UK Ltd (company number 10433076)
- e) **December 2016 - Provisional License issued**
- f) December 2016 – Initial funding of US\$18.8 million confirmed via LOI - Polish government export financing scheme on behalf of Polish EPC
- g) August 2017 – target date to secure final US\$10 million debt commitment
- h) September 2017 - Hydrological survey, Topographical study and Change of Use report completed
- i) September 2017 - grid connection permit to the medium voltage lines and all the building permits, concessions or any other legal permits or decisions to be completed
- j) September/Oct 2017 - Final PPA expected; timing recently confirmed by government department
- k) September/Oct 2017 – Environmental Assessment (EIA) and pre-build technical work completed
- l) September/Oct 2017 – Standard PCOA (Put and Call Option Agreement) to be executed, effectively risk transferring revenue stream from the state electricity company to the Ministry of Finance
- m) October 2017 – Initiate clearing of land
- n) October 2017 - Shipment of solar PV panels, Frames and inverters
- o) November 2017 - Building of office structure at Simbrofo site
- p) November 2017 - Equipment moved to site
- q) December 2017 - Installation of solar equipment
- r) September 2018 - Test run of electricity production
- s) October **2018 - Commissioning of plant.**



## **Regulatory Framework and Permitting**

Feasibility study completed. The favourable Feed-In-Tariff will shortly be secured and it is expected all work leading to a US\$ linked Power Purchase Agreement (PPA) will be completed and PPA signed by no later than end of October 2017.

It is planned to obtain the grid connection permit to the medium voltage lines and all the building permits, concessions or any other legal permits or decisions also by October 2017.

We are currently working on the Hydrological survey, Topographical study, EIA, construction permits and Change of Use report. These will be completed shortly and over the next months.

## **The Project Group**

Simbrofo Light Ghana Ltd UK limited - UK holding company and 100% owner of the project

Simbrofo Light Ghana limited - Local Ghana registered project/management company

FEP Group, Ghana - local business consultancy

tba - Polish EPC

Bank Gospodarstwa Krakowego, Poland – project loan provider on behalf of EPC

United Nations REPP – support and expert assistance

United Kingdom Government Department of Trade and Industry – support action plan in place

## **The Project Principals**

Mr Alan Brewer MSc, director UK holding company

Project facilitator and director/shareholder of the UK holding company. Alan has over 20-years of experience in the sustainable energy and waste sectors, both in the UK and on an international basis. He also has experience of researching and writing city energy policy in the UK and coordination of county energy networks. He has been active in pioneering solar PV off-grid and solar farms since 1995.

Mr Stephen Filary HNC, director UK holding company

Electronics engineer and businessman with over 30-years of experience. Scientific Officer for UK Ministry of Defence. During the late 1970's Mr Filary worked in Africa providing surveying in the electronics sector in Nigeria, Cameroon, Ghana (Simbrofo region) and Somalia. His experience has covered solar PV installation work.

Mr Victor Noonoo, director Ghana SPV

Victor is a Ghanaian/UK Businessman with over forty years of business development experience and has been a key player in bringing together landowner and technical partners. Victor has good contacts in Ghana, which has enabled a smooth transition of the solar farm project at Simbrofo.

Mr David N Tamakloe, director Ghana SPV

David has been responsible for the development of the Simbrofo Solar Farm project and has excellent connections in Ghana to make possible the solar farm project. Over thirty years as a Businessman in the UK and on an International basis.