WEBINAR
innovative financing for African solar

Join us to shed light on the innovative financing approaches of some of the most successful solar companies in Africa.

Tuesday January 26
1PM GMT - 2PM WAT/CET - 3PM CAT - 4PM EAT

WITH GUEST SPEAKERS:
Bernardo Lazo Namene Solar
Saul Wainwright The Sun Exchange
THE GO-TO PLATFORM FOR EVERYTHING SOLAR IN AFRICA

Promote the use of all solar solutions across Africa

Share info and knowledge about solar in Africa

Help our members increase their reach and generate more business
AFSIA COVERS THE ENTIRE CONTINENT

CONTINENTAL SCOPE

- AFSIA main target: Africa’s 54 independent states
- HQ: Kigali, Rwanda
- Local representation in Morocco, Algeria, Egypt, Ghana, Nigeria, Kenya, South Africa and Madagascar
- Events: moving across the continent based on opportunities and agenda
  
  Past and scheduled events include Ghana, South Africa, Rwanda, Kenya
AFSIA COVERS THE FULL INDUSTRY

COVERAGE OF FULL SOLAR INDUSTRY

Photovoltaic

Technical

Policy makers

Mini-grid

Financial Institutions

Solar Home Systems

Legal

Hybrid systems

Concentrated Solar Power
MEMBERS’ RESOURCES

- Companies database
- B2B match-making
- Events promotion or management
- Who’s Who interview
- Projects database
- Tenders database
- Job portal
- Webinars and Product Showcase
AFSIA ACTIVITIES HIGHLIGHTS

AFSIA Solar Awards

World Future Energy Summit
Abu Dhabi

SEforALL Forum Kigali

World Energy Council Manufacturing Indaba

Global Energy & Utilities Digital Week

InterSolar Munich

Launch Annual Outlook Report

Webinar Innovative financing for African Solar

Webinar Green Hydrogen

AFSIA Solar Awards

Webinar Technical considerations PV+storage

Launch Solar meets water

Webinar - Solar for airports

Launch of African solar projects database

Webinar Solar for airports

Webinar Solar in agriculture

Webinar COVID implications for African solar

Global Solar Association Network

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Bernardo Lazo
Namene Solar

Saul Wainwright
The Sun Exchange
Bernardo Lazo
Sustainability Director
UK

• 15+ years experience in carbon markets and climate change policy advisory

• Prior to Namene Solar, worked with EcoSecurities to commercialize carbon credits on voluntary markets, and Director of Partnerships at Gold Standard Foundation, one of the main carbon market standards

• MSc in Environmental Technology at Imperial College London
NAMENE SOLAR

Innovative Financing for African Solar

Carbon finance for pico-solar

Africa Solar Industry Association Webinar

26 January 2021
We are a solar company.

We make energy affordable by connecting people to the sun.

We design and manufacture award winning innovative solar lights.

Our first product, the popular SM100, is the world’s first, super-affordable solar headtorch.

Half a billion people live without grid power in Africa. Worldwide, the problem is twice the size.

Our solar industry experts & creative problem solvers are tackling the challenge head-on, by understanding the needs of people.
Lights for everyone

By changing the way people study, work and play we can fight climate change together with sustainable lights that work for people and the planet. That’s why we created the most affordable solar head torch, our award-winning SM100.
Power without limit

The power of our potential has no limit. We want to bring our expertise to everyone, wherever power and light is needed.

As full-service solar specialists we enable scalable solar installations that combat climate change and make financial sense for commercial, industrial and community projects.
Carbon credits as a financial tool

Carbon credits can help finance projects that otherwise would not be economically feasible, by providing a new or additional revenue stream.

- Monetise the value of the carbon reduction of your project
- Mainly a results-based financing – paid based on carbon credits already generated
- Often requires additional financing sources (loans, equity, grants)
- Carbon revenue can help to cover development or operation costs or reduce the price of the technology sold
- Projects need a minimum scale to cover the carbon certification costs (~10-20k tonnes/year)
Carbon financing process

1. Design Certification
   - Project meets carbon standard requirements

2. Project operation
   - Project reduces GHG emissions

3. Performance Certification
   - 3rd party audits performance

4. Carbon credit issuance
   - Carbon standard issues credits

5. Carbon credit sales
   - Project monetises the carbon credits
How carbon credits are calculated

A baseline scenario is compared to the project scenario. The GHG emissions reduced by the project can be claimed as carbon credits.

Baseline scenario

- CO₂ emissions
- Light

Project scenario

- SM100 solar light
- CO₂ emissions
- Light

Carbon credit (VER)

One solar lamp reduces 92 kg of CO₂ per year (default value from the carbon methodology).

Same logic applies to solar PV power projects (0.2-1.0 tonnes of CO₂ per MWh, depending on the grid emission factor).
Not all projects are eligible for carbon credits certification

- **Off-grid**
  - Yes. In most cases Lights. SHS. Mini-grids

- **Grid**
  - Mostly no. Unless in a least developed country

**All projects need to demonstrate that they are** additional.

i.e. need carbon revenue to be economically feasible

#LightsPowerAction
Gold Standard certification

Certification enables a project to:

1. Monetise their carbon reductions
2. Certify their contributions to the UN Sustainable Development Goals (SDGs)

A project needs to:

✓ Comply with stringent social and environmental safeguards
✓ Conduct an extensive consultation process during the project planning
✓ Quantify, monitor and report the project impacts (SDGs)
✓ Be audited by a third party, at the design and implementation stage
Carbon credit generation cycle

**Design Certification**
- Project preparation
  - Stakeholder consultation
  - Baseline assessment
  - Document preparation
- 3rd party validation (audit)
- Project Design Review
- Gold Standard certification

**Performance Certification**
- Project implementation
  - Solar light distribution
- Monitoring
  - Monitoring period 1
  - ~1 year
- ~2 months
- ~1.5 months
- 3rd party verification (audit)
- Project Performance Review
- VER issuance
- Carbon credit sales

**Duration**
- 12-18 months

**Recurring**
- #LightsPowerAction
The case for using carbon finance to scale distribution of pico-solar lights

and how aggregation can achieve big scale and impact
Our case study: Distribution of pico-solar lights in Namibia

652,000 solar lights being distributed in rural households & informal settlements

1.2 million people to be benefitted

1st Gold Standard project certified ever in Namibia

Project aims to eradicate kerosene and candles in the whole country

#LightsPowerAction
We did extensive baseline assessment and stakeholder consultations
The project delivers significant contributions to the SDGs

<table>
<thead>
<tr>
<th>SDGs certified by Gold Standard</th>
<th>Additional SDGs contributions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1 No Poverty</strong></td>
<td>by reducing indoor air pollution from the combustion of kerosene and candles for lighting.</td>
</tr>
<tr>
<td>by reducing expenditures in fuel for lighting, saving millions of dollars over the project lifetime.</td>
<td><strong>3 Good Health and Well-being</strong></td>
</tr>
<tr>
<td><strong>7 Affordable and Clean Energy</strong></td>
<td>by enabling extra study hours for children that supports higher school grade attainment.</td>
</tr>
<tr>
<td>by providing 1.2m people with first time access to clean energy for lighting</td>
<td><strong>4 Quality Education</strong></td>
</tr>
<tr>
<td><strong>13 Climate Action</strong></td>
<td>by creating local employment opportunities in a growing sector</td>
</tr>
<tr>
<td>by reducing more than 200k tonnes of CO₂ emissions</td>
<td><strong>8 Decent Work and Economic Growth</strong></td>
</tr>
</tbody>
</table>

The social return of the project is huge!

#LightsPowerAction
Our key success components

- The right product
- The right distribution model
- The right team & partnerships
- The right monitoring systems
Key takeaways

- Carbon certification can open doors to financing and more visibility to projects
- Check if your project is eligible under current carbon standards
- The devil is in the detail. Rely on specialists, they can save time and money
- It is a long journey. Be patient but persistent. Take your time to design a good project
- Monitoring is key. No data -> no carbon credits -> no money
- Keep an eye on the carbon market for changes in regulations and trends
Life-changing lights for people and planet
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Saul Wainwright The Sun Exchange
Saul Wainwright
Chief Financial Officer
South Africa

• 20+ years experience in finance and global fin-techs
• 15+ years in Silicon Valley
• At The Sun Exchange, responsible for managing global risk, compliance and finances
• Graduated from UC Berkeley and University of Cape Town
HELLO.
I’M SAUL WAINWRIGHT,
CFO AT SUN EXCHANGE
PEOPLE POWERED SOLAR FINANCE
Meet Alana
Meet Wendy
Meet Sun Exchange
Solar Projects

Westville Veterinary Hospital | 32.13 kW | Durban, South Africa
Westville Veterinary Hospital in Durban is a 24-hour hospital for animals. Purchasing and seeing solar cells in this project will reduce the financial burden on the hospital, replacing energy costs, and saving you a portion becomes clean energy from somewhere for 20 years.

Salomon Sexual High School | 32.28 kW | Vlakvlei, South Africa
Salomon Sexual High School is the first large high school in Vlakvlei, home to keep 500 students, This is the first in a series of San-Energies projects in the Northern Free State, building schools to go solar on an employee rate, and allowing you to make money from savings.

CROW WYBIE-TeetlaFarm | 17 kW | Durban, South Africa
Five of the largest solar projects in the country have been approved in 2017. The first of South Africa's first dedicated over is still Zambian. This is the first of these projects in the country. Visit www.solar.co.za for more info.

Kat Tine | 45 kW | Middelburg, South Africa
Kat Tine is a vector solar biodegradable plastic. They are using millions of solar cells produced from the river of the day.

Cape Town High School | 55 kW | Cape Town, South Africa
Cape Town High School is a large school to the historic school. When this project is complete, it will be a large school.

Sonne Schoor | 55 kW | Cape Town, South Africa
Sonne Schoor is a large school to the historic school. The school is a large school.

Tshane Sekwena School | 55 kW | Cape Town, South Africa
Tshane Sekwena School is a large school to the historic school. When this project is complete, it will be a large school.

Senior Burger Elandsfontein Retirement Home | 60.59 kW | Vlakvlei, South Africa
Solar power Senior Burger Elandsfontein Retirement Home and cut their energy bill to over 80%. The electricity from solar panels will also be in two for the over 50s costs, cutting your carbon footprint and making profits and affordable ones.

Woodside Special Care Centre | 45.60 kW | Cape Town, South Africa
Woodside Special Care Centre is a non-profit housing group for the elderly. Our west design with the view of a new building. The solar cells will be affordable ones.

Wyberg Boys’ Junior School | 42.88 kW | Cape Town, South Africa
Wyberg Boys’ Junior School is the second oldest school in South Africa. Solar power for the historic school will make it a lot easier for the students.

Wyberg Girls’ High School | 64.40 kW | Cape Town, South Africa
Wyberg Girls’ High School is the second oldest school in South Africa. Solar power for the historic school will make it a lot easier for the students.

Ulithi Shopping Mall | 50 kW | Kwadukuza, South Africa
Ulithi Shopping Mall is a shopping center. The solar cells will be affordable ones.
How it works

- Evaluation
- Proposal
- Crowdsale
- Build
- Energy and billing
Impact and Income
Impact and Saving
19,000 members across 168 countries
3.6 megawatts clean energy
2.7 tonnes carbon offset
Join us
Saul Wainwright
Chief Financial Officer
South Africa

Bernardo Lazo
Sustainability Director
UK