SOURCE
ENERGIA

ALER – Renováveis para Autoconsumo em Moçambique

November 2021

"Energy transition to the new green economy is real, Mozambique has started"

C&I SELF-CONSUMPTION OPPORTUNITY

CLIENT OPPORTUNITY

- ☑ **Mozambique** is blessed with **one of the world's best solar resources**
- ☑ **Solar tariffs** on commercial returns are **lower than grid tariffs**, which are expected to continue to rise
- ☑ **Immediate cost savings** are possible
- ☑ **Favorable regulatory framework**
- ☑ **Activate** and create **value** from **vacant rooftop or ground space**
- ☑ **Low O&M costs** on solar PV installations
- ☑ Assure **reliable supply of renewable energy**
- ☑ Solar energy **contributes to sustainability, global climate change objectives**, Corporate Environmental Responsibility and **reduced carbon footprint**
- ☑ Option for **zero-investment model**
- ☑ Solar PV installation has a **lifespan** of up to **30 years**
- ☑ **Customized** solar equipment installation according to **client's electricity needs**

Additional Savings Opportunities

Let's lower your Levelized Cost of Energy

Reduce stoppage time losses & equipment damage caused by power failures

Ideal for clients operating during daylight hours

Energy surplus sale to the grid

Operating with Diesel or Gas

Rooftop Mounted

BASE CASE

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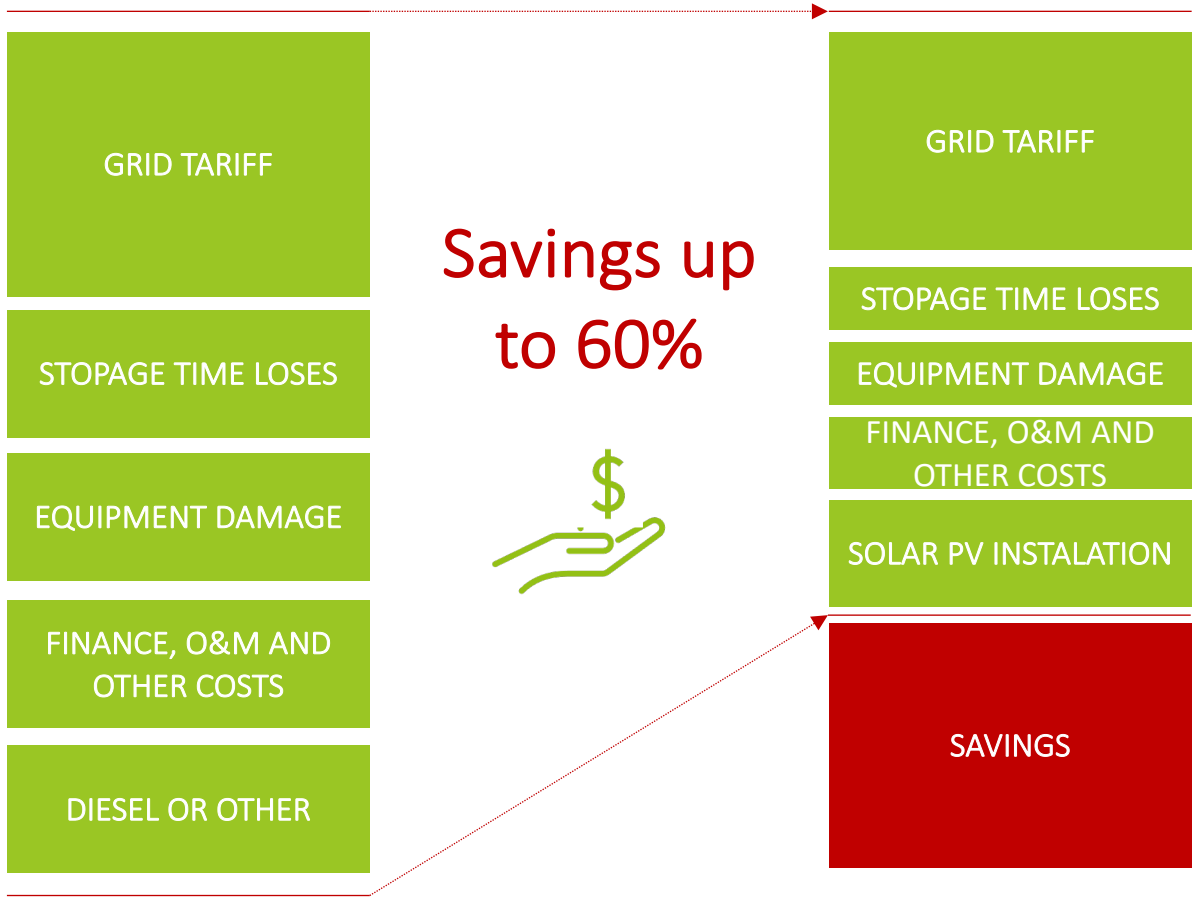
LEVALIZED COST OF ENERGY

☑ The Levelized Cost of Electricity (LCOE) is a metric used to calculate the present value of the cost of electricity, including the costs to construct and operate the power plant over the system lifetime. It allows a comparison of different technologies where the project size, costs, power generation, lifespan and economic parameters are unequal. The LCOE is defined by the following formula →



$$LCOE = \frac{\sum_{t=1}^{n} \frac{I_0 + F_t + O\&M_t}{(1+d)^t}}{\sum_{t=1}^{n} \frac{Q_t}{(1+d)^t}}$$

I_0	= Investment expenditures made in year 0
F_t	= Funding cost in year t
$O\&M_t$	= Operation and Maintenance expenditures in year t
Q_t	= Net electricity generation of the PV plant in year t
d	= Nominal discount rate (10%)
n (30 years)	= Period of economic analysis / lifetime of the PV plant

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EXECUTIVE SUMMARY – SOURCE ENERGIA

Who We Are

- Source Energia is a diversified renewable energy platform focused on the development, finance, construction, management and operations & maintenance of large & small scale on- & off-grid renewable energy in Lusophone Africa. The team has deep insight into local commercial and regulatory frameworks, know-how of current best practices for renewable energy projects, and over 70 years of combined experience.

Our Experience

2,5 GW Development experience in solar and wind **on-grid IPP**

+200 MW wind and solar **on-grid IPP** under development

19 MWp Solar + 6 MW BESS **on-grid IPP** under construction

100k+ of **SHS off-grid** beneficiaries growing 15 k per month

TESCO & MINI GRID green field projects under development

40+ MW **off-grid C&I** solar under development

Our Services

- Advisory/Feasibility Studies
- Finance and Project Structure
- Asset Management
- Project Development
- Project Management
- Engineering and Construction
- Operation and Maintenance

Focus

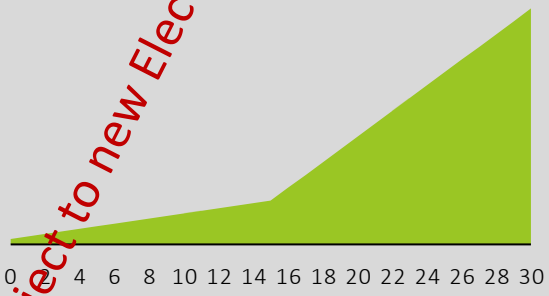
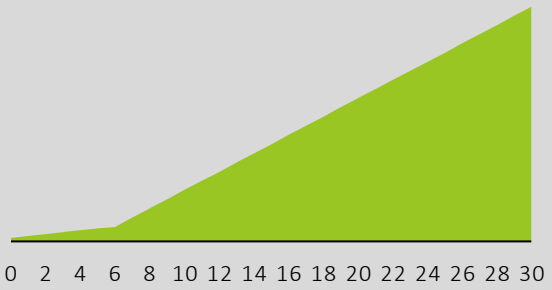
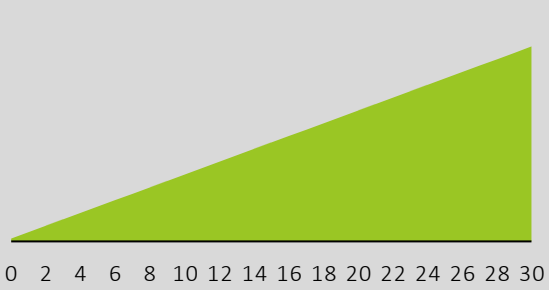
Areas of Expertise

- On Grid IPP
- Self-Consumption / C&I
- **T**elecom **E**nergy **S**ervices **CO**mpany
- Rural Electrification (SHS & Mini Grid)

C&I SELF-CONSUMPTION OPPORTUNITY

BUSINESS MODEL

NOTE: *When on Grid Self Consumption has to be complementary to Grid supply*

	SALE OF POWER OR INFRASTRUCTURE AGREEMENT	LEASING	EPC
CONTRACT TYPE	PPA	Leasing	Construction and Commissioning
TENOR	15-25 Years	5-10 Years	Construction Period
ANNUAL TARIFF GROWTH RATE	2-5%		N/A
TARIFF / RENT	Paid monthly in Meticais indexed to the US$ in Mozambique		N/A
PERIOD *(depending on size)*	Licenses and construction 2-8 months; Construction 2-18 Months (depending on size)		
DOWN PAYMENT	Case dependent		
APPLICABLE LAW	Mozambique		
SECURITY	Case dependent		
CUMULATIVE SAVINGS	*Example with 15 years PPA* 		
OWNERSHIP	Developer during Tenor, Client thereafter	Client	Client

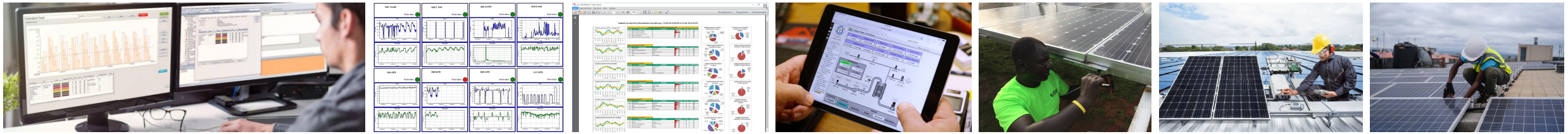
Subject to new Electricity Law Ractification by Parliment

C&I SELF-CONSUMPTION OPPORTUNITY

OPERATIONS AND MAINTENANCE

	ASSET MANAGEMENT, OPERATIONS AND MAINTENANCE AGREEMENT
SCOPE	Generalized monitoring and alerting, inspection, maintenance and corrective visits, O&M report, equipment guarantee management, supply and replacement of spare parts. The services will be provided in relation to all constituent materials of the Solar PV Power Plant. O&M services provided across the country
TENOR	15-25 years + 10-0 years (optional)
SERVICE FEE	Paid monthly in Meticais indexed to the US$ in Mozambique
ANNUAL GROWTH RATE	2-5%
CONTRACT TYPE	Service Agreement
APPLICABLE LAW	Mozambique
SOFTWARE SYSTEM	SCADA recording events into a log file and monitor the performance of the solar panels

SCADA = Supervisory Control And Data Acquisition



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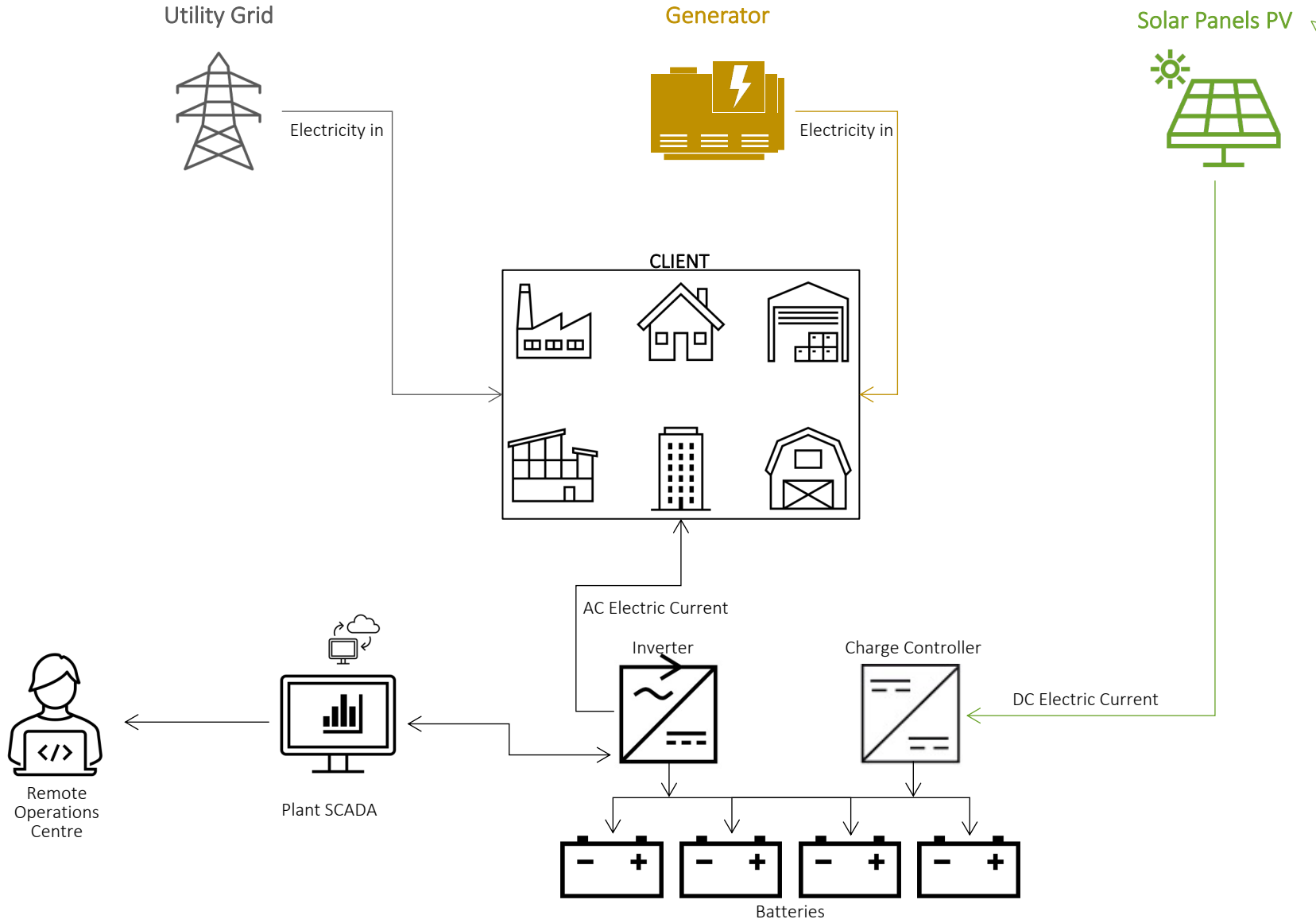
TECHNICAL DESIGN



Type of Solar PV Structure

Solar PV Carpot

Solar PV Roof Mounted

Solar PV Ground Mounted

C&I SELF-CONSUMPTION OPPORTUNITY

CLIENT JOURNEY WITH SOURCE ENERGIA - TIMINGS AND PROCESSES

Contact with Clients & Information Gathering and Assessment

2 weeks

Pre-feasibility Studies

2 weeks

Client says No Go ✗

Client says Go ✓

Final System Design and Bill of Quantities

4 weeks

Procurement *(best fit basis)*

4 weeks

Final Binding Proposal & Commercial Agreement

1 week

Construction

Client and Size Specific

Commissioning

1 week






SOURCE ENERGIA

CASE STUDIES

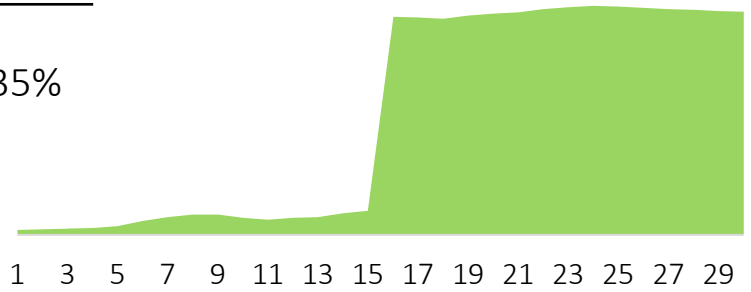
Case Study A

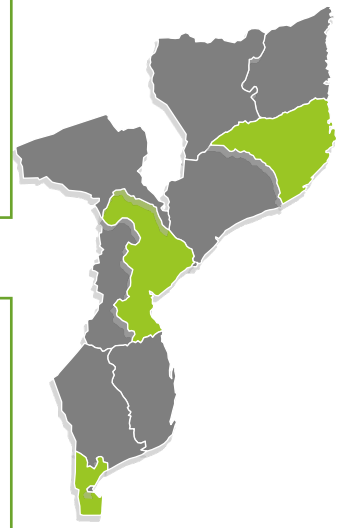
Size: 14.8 MWp

Savings 51%

Existing Resource: Grid

% of Solar: 35%





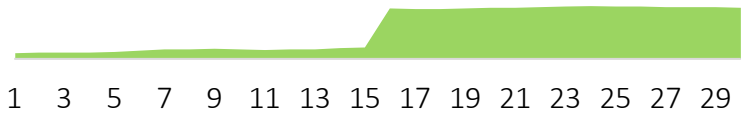
Case Study B

Size: 2 MWp

Savings 57%

Existing Resource: Grid

% of Solar: 35%



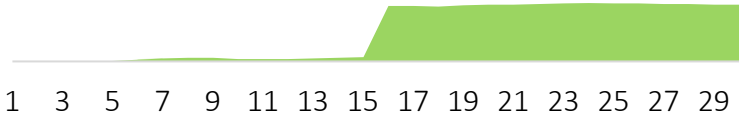
Case Study C

Size: 3.7 MWp

Savings 48%

Existing Resource: Grid

% of Solar: 33%



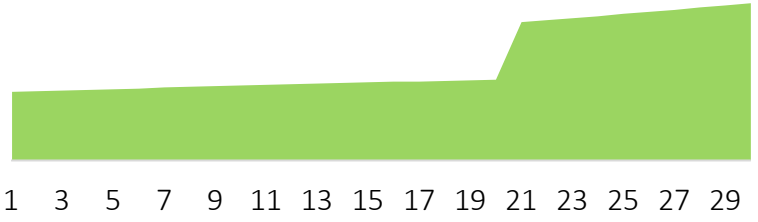
Case Study D

Size: 1.9 MWp

Savings 71%

Existing Resource: Diesel

% of Solar: 52%



SOURCE ENERGIA

OUR INVESTMENT PROJECTS

CUAMBA SOLAR POWER

Sector: Solar PV Energy
Role: Development/Investor 30%
Status: Under development
Partner: Globeleq
Size: 15 MW + BESS; USD 26 M



NAMAACHA WIND POWER

Sector: Wind Energy
Role: Development/Investor 30%
Status: Under development
Partner: Globeleq
Size: 120 MW; USD 250 M



MANHIÇA - Wind Power -

Sector: Wind Energy
Role: Development/Investor
Status: Under Development
Partner: Globoleq
Size: 60 MW USD 120 M



Ignite

Sector: Household solar
Role: Investor
Status: Development/Investor 30%
Partner: Ignite Solar
Size: 300.000 SHS; USD30m
Website: https://www.ignite.solar/


TECNO CONTROL

Sector: C&I Solar PV Energy
Role: Developer/EPC
Status: Under development
Partner: Tecnocontrol
Size: 70 kWp



Millennium bim

Sector: C&I Solar PV Energy
Role: Developer/EPC
Status: Under Construction
Partner: Tecnocontrol
Size: 21 kWp


SOURCE ENERGIA

STRATEGIC PARTNERSHIP - PROSOLIA ENERGY: MULTINATIONAL GROUP SPECIALIZING IN SOLAR PHOTOVOLTAIC

- Market leader in industrial roofing installations
- More than 500 installations: +300MW installed
- Maintenance +140MW (O&M)
- 45 employees
- Turnkey integrated services: development, financial structuring, construction, operation (O&M)

prosolia energy

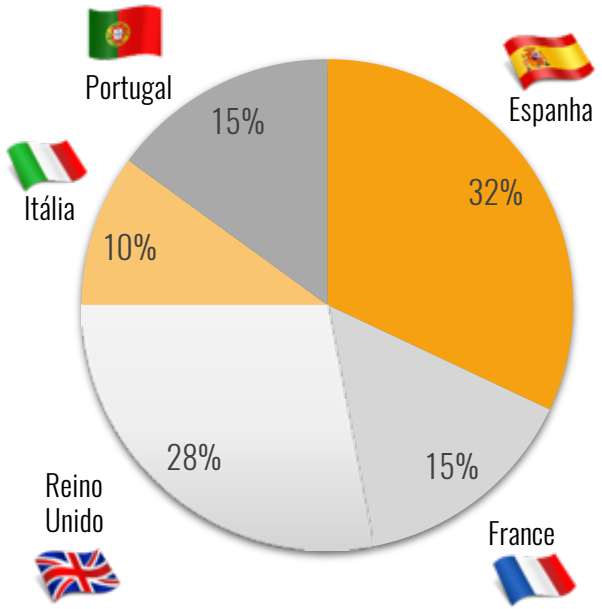
300 MW Installed

140 MW In Maintenance

62 MW Under Construction

1 200 MW In Development

International Experience



Examples of Installations (Portugal)

MOTA · Tupperware · PLASGAL · costaverde · HERDADE DO ESPORÃO ALENTEJO - PORTUGAL · TUPAI · Matutano · Luís Leal & Filhos S.A. · PEPSICO · ambi group · GRES ART · primus vitoria ceramics · MANULENA · SPAL PORCELANAS · BLANDY EST. 1811 · MAGRATEX · EIB · FÁTIMA STONES

SOURCE ENERGIA

PART OF PROSOLIA PORTFOLIO

M. BIM Matola Branch
Size: 21 kWp
Design: Roof
Status: Under construction
Promotor: Source Energia

Tecnocontrol
Size: 70 kWp
Design: Ground
Status: Under development
Promotor: Source Energia

Costa Verde
Size: 1 MWp
Design: Roof
Status: Operating since 2017
Promotor: Prosolia

Matutano
Size: 472 kWp
Design: Roof and Ground
Status: Operating since 2017
Promotor: Prosolia

SPRAL
Size: 212 kWp
Design: Roof
Status: Operating since 2021
Promotor: Prosolia

Felgueiras
Size: 486 kWp
Design: Ground
Status: Under construction
Promotor: Prosolia

Granitos Rocha
Size: 206 kWp
Design: Roof mounted
Status: Operating since 2021
Promotor: Prosolia

Gourmet Cazorla
Size: 207 kWp
Design: Roof
Status: Operating since 2020
Promotor: Prosolia

Lavamiranda Ribarroja
Size: 100 kWp
Design: Roof
Status: Operating since 2020
Promotor: Prosolia

Hermanos Yague
Size: 79 kWp
Design: Roof
Status: Operating since 2020
Promotor: Prosolia

Tupai SA
Size: 750 kWp
Design: Roof
Status: Operating since 2021
Promotor: Prosolia

Mota Cermaic
Size: 668 kWp
Design: Roof
Status: Operating since 2020
Promotor: Prosolia

Plásticos Joluce
Size: 854 kWp
Design: Roof
Status: Operating since 2021
Promotor: Prosolia

Magratex
Size: 576 kWp
Design: Roof
Status: Operating 2019
Promotor: Prosolia

Ourika
Size: 21 kWp
Design: solar park
Status: Operating since 2018
Promotor: Prosolia

Kanimambo!

Obrigado!

Thank you!

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