

**MATHIKIZANA MATOS** Senior Advisor

# **C&I Solar Applications in** Mozambique

Market Insights Package – 7<sup>th</sup> Dec 2022

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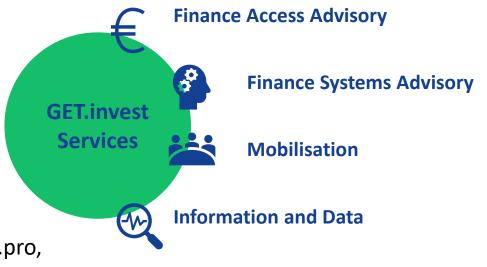
💳 Austrian Development Ministry of Foreign Affairs of the Agency

Netherlands



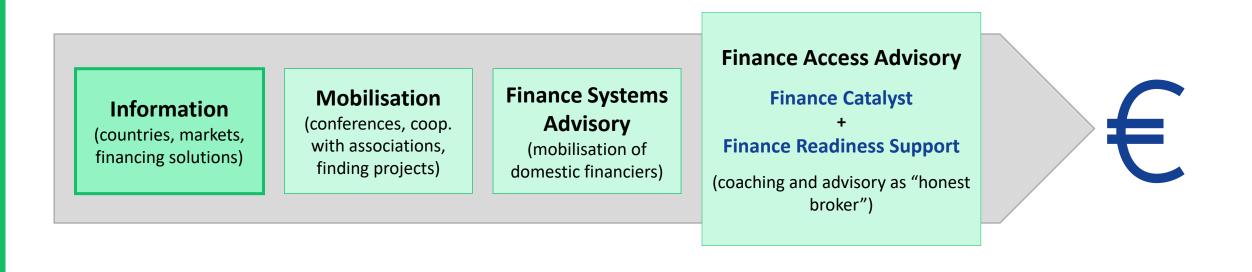
# **GET.invest: Overview**

- Leading European programme mobilising investment in renewable energy, building a pipeline of investment-ready projects
- **Team Europe One Stop Shop** for Green Energy Investments
- Supports all relevant delivery models, incl. on- and off-grid electricity, clean cooking, productive use
- **Broad partner network** incl. financiers and associations
- Active in Sub-Sahara Africa, the Caribbean & the Pacific
- Implemented by GIZ, hosted on the multi-donor platform GET.pro, and supported by the European Union, Germany, Sweden, the Netherlands, and Austria.





# **GET.invest Scope of Services**



**Project Potential** 

**Project Ideas** 

**Viable Projects** 

**Bankable Projects** 



#### **Commercial and Industrial (C&I) Solar Applications**

#### The Developer Guide:

A manual for the private sector to set up a business.

- Assessment indicators of C&I and Market Comparison, Business Models, and Financing across sub-Saharan Africa
- Deep dive into C&I in Mozambique
  - Sectors covered: Agricultural Processing, Fisheries, Tourism and Mining
- Route-to-Market leveraging this market research to start up a renewable energy business in Mozambique
  - Exploring per sector: Market Sizing (including Investment Opportunities), Regulations, Business
    Registration, Financing Landscape, Consumer Awareness and Sector Outlook

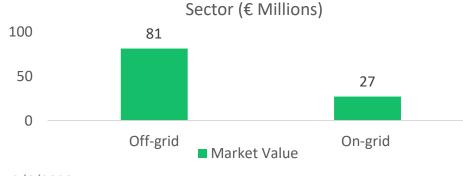


#### **Commercial and Industrial (C&I) Solar Applications**

#### **Research Methodology:**

- Review of national companies database (INE) for statistics and to compile GIS maps on all 4 sectors
  - Agriculture Processing 385
- Tourism **3291**
- Mining **1280**

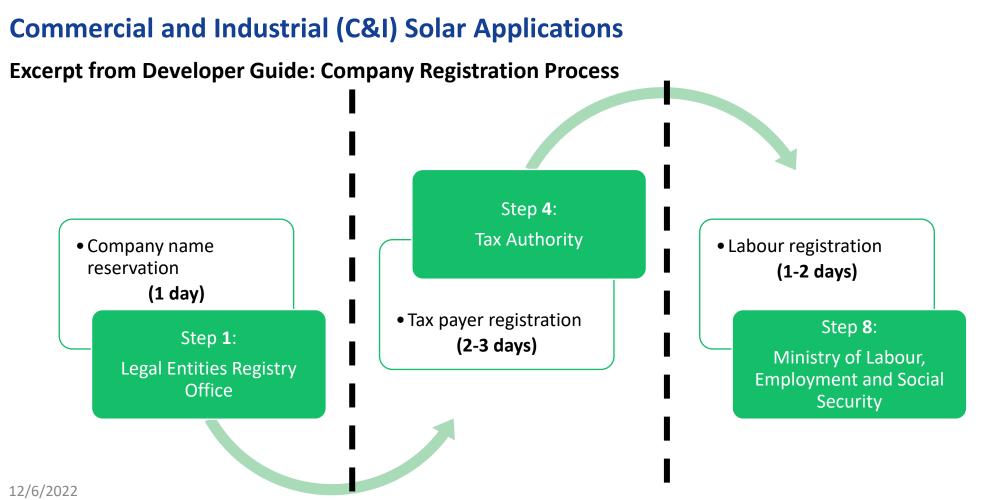
– Fisheries (N/A)



Estimated C&I Solar Market Value for the Mining

- Stakeholder surveys, interviews and site visits:
  - C&I demand side industry AIMO members
  - C&I supply side industry AMER and ALER members
  - Key government stakeholders MIREME, ARENE, MIC, MASA, EDM, FUNAE INE
  - Local financing institutions and international funds with focus on C&I

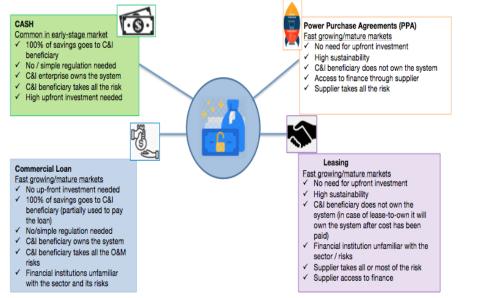






### **Commercial and Industrial (C&I) Solar Applications**

Excerpt from Developer Guide Different options for financing C&I (business models) Excerpt from Developer Guide Partial list of C&I service providers in Mozambique



C&I Supplier	Description	Contact Information
Supplier A	offers equipment and services focused on the pump and valve industry. The company also stocks solar energy equipment such as batteries, inverters, charge regulators, PV panels, solar water heaters and solar water pumps. Installation and maintenance services are also provided for the equipment sold.	Mozambique
Supplier B	is a diversified renewable energy platform focused on the development, finance, construction, management and operations & maintenance of large and small-scale on- and 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.	Mozambique
Supplier C	was established in 2008 with its headquarters in Maputo and an office in Inhambane. entered the renewable energy sector in 2013, also as an independent service organization, specialized in supply, installation and maintenance of hybrid, off-grid and energy storage systems.	Mozambique



#### **Commercial and Industrial (C&I) Solar Applications**

#### Model Business Cases:

A techno-economic and financial analysis on the viability of the below businesses:

1. Off-Grid C&I Solar Project

...with battery storage serving an eco-lodge on the coast in Mozambique.

Output consumed by customer to replace diesel power, no surplus electricity to feed the grid.

#### 2. On-Grid C&I Solar Project

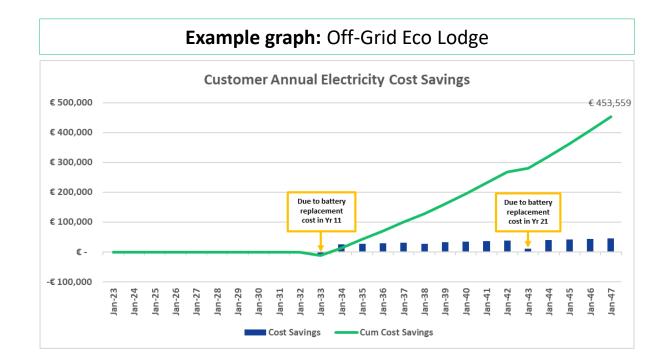
...serving a cashew processing facility.

*Two scenarios - with batteries and without batteries explored.* 

- The Financial analysis compares different scenarios, arriving at IRR, payback, NPV, DSCR, etc.
- Sensitivity analysis presents scenarios by varying CAPEX/OPEX, Debt Interest Rates, System Pricing, Local Currency Depreciation / Inflation, etc.



#### **Commercial and Industrial (C&I) Solar Applications**





# Thank You for Your Attention!

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