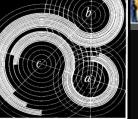
## Photovoltaic Power Plants

#### **EXPERIENCE & SOLUTIONS**

SOLUTIONS PROVIDER



O KHARTOUM O ROME O HOUSTON O LONDON

#### Contents



About MEFIT

- PV Solar Power System
- Services and Experience
- Conclusions



### About MEFIT

- MEFIT is involved in a wide range of activities; from regional and urban planning, and complete design of a commercial or industrial center or a new city to energy projects.
- MEFIT's experience and expertise in consulting, engineering and project/program management is capable to construct an original overall approach to projects development.
- MEFIT wide network of Specialists provides to Government agencies or private developers, the expertise required to carry out Analysis, Feasibility Studies, Planning, Budgeting, Engineering and Designing, Tendering and Program/Project management.
- There is, an outstanding difference between the traditional consultancy approach and the philosophy adopted by MEFIT. The difference is immediately identifiable by the great importance MEFIT attaches to the local cultural aspects of the work at hand.
- Due to its modern organisation, MEFIT can provide answers to the most complex demands to the satisfaction of clients. The many clients are testimony to the magnitude and quality of MEFIT work.

**MEFIT is implementation** - from the first idea, possibly a simple line or colour hypothesis, to the completion of the smallest sophisticated detail, fit-for-purpose solutions produce an entire package of comprehensive design and implementation.

**MEFIT is dynamic** - it aims at the development of the potential creativity, energy and enthusiasm of a youthful staff, supported by experienced and skilful managers who represent the driving force of the company.

**MEFIT is agile** - know-how and organization bring the most compatible partnerships for any requirement. These qualities insure the commitment and the fulfillment of the project's objective.





#### PV Solar Power System

- Solar power represents a cost effective, simple to install and easy to maintain power solution.
- Photo Voltaic (PV) systems are highly reliable and often offer the lowest life-cycle cost
- PV have been around for more than 50 years, are readily available in a wide range of sizes from several well established companies, and long life with 20- to 25-year power warranties and life expectancies beyond 30 years.



#### Photovoltaic Plant

- ✓ Cost Effective
- ✓ Simple installation
- $\checkmark$  Automated operation
- ✓ Distributed Generation
- ✓ Modular



- ✓ Sun tracking
- ✓ Hybrid solutions
- ✓ Remote Monitoring
- ✓ Storage options





#### Power Storage

- MEFIT will provide the optimum power storage solution to match the needs.
- MEFIT matches batteries to energy management systems and specially designed inverters to maximize lifespan, depth of discharge





PowerBox

5 kWb



### Solar Car Park

- A Solar Carpark consists of a steel frame with photovoltaic solar panels for a roof.
- Solar Carparks provide many advantages over conventionally roof mounted solar panels such as:
  - Producing power at zero variable cost
  - Monthly utility costs are used to payback carpark
  - Reduce utility costs and carbon footprint
  - Improve commitment to the environment
  - Provide shade from intense solar radiation



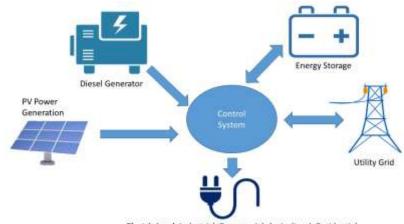




## **Microgrid Solution**

MEFIT combines solar with power storage and other power generation methods in a microgrid can further enhance flexibility and range of operations

 MEFIT brings together different energy sources and combines them with load management systems to provide flexibility and reliability.



Electric Load: Industrial, Commercial, Agricultural, Residential







# Services & Experience

- MEFIT has teamed with Italian company Logitech to provide proven design and installation of PV power plants
  - MEFIT is experienced in stand alone plants, building integrated power plants, roof mounted industrial power supply with or without energy storage.
  - MEFIT provides planning building and management of integrated solar power solutions.



#### Services



Conceptual Studies Detailed Design

- Conceptual/Feasibility studies
- Technology evaluation and Selection
- ✓ FEED
- ✓ Basic Engineering
- Detailed Engineering
- Construction Management

- Modularization
- ✓ Fabrication

FEED

- Erection and Construction
- Pre-commissioning and Commissioning
- Operation Support
- Operators training
- Operation and Maintenance Manual

 Process Optimization/Design Review

Operation

Support

 Trouble Shooting /De Bottlenecking Solutions

Construction

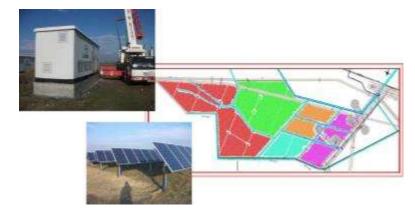
Commissioning

- Reliability & Availability Study
- ✓ Performance Reviews



#### Experience

- Building integrated PV Power Plant
  2.2 MW, Gicignano, Italy, 2011
- Roof mounted PV Power Plan 1 MW, Carinaro, Italy 2011
- PV Power Plant 1MW Cicciano, 2011
- PV Power Pant 1.2MW Liberi, Italy 2012
- Roof mounted Industrial PV Power Plant 0.5 MW, Gricignano, Italy 2012
- Roof mounted Industrial PV Power Plant 2.2 MW, Nusco, Italy 2013
- PV Power Plants 2MW and 3MW, Barbulesti Romenia 2016







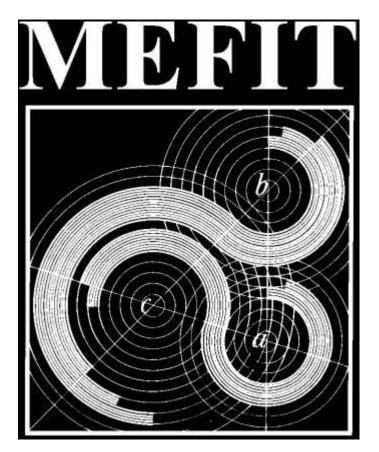


Solutions Provider

### Conclusions

- 1. MEFIT has the technical know how and experience required to ensure a successful PV power installation for all kind of applications
- 2. MEFIT has the expertise and know how to understand not only the technical aspects but also the socioeconomic and cultural requirements of a project.
- 3. MEFIT is the ideal partner to evaluate various alternative solutions from a number of providers and develop the most efficient and economic system for the purpose.





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#### **Thank You!**