

Terms of Reference

Technical Expert for Grid Connected PV Systems

Project Title:	Grid-Connected Small-Scale Photovoltaic Systems “Egypt-PV”
Post Title:	PV Technical Expert
No. of Posts Available:	5 Technical Experts
Contractual modality:	Local individual consultant
Duty Station:	Cairo
Duration:	12 months
Supervision:	Project Manager

Background

The project is executed by Industrial Modernization Centre (IMC) of the Ministry of Industry and Foreign Trade, which will assume the overall responsibility for the achievement of project results as UNDP’s Implementing Partner (IP). The project is funded by the Global Environment Facility (GEF) and United Nations Development Programme (UNDP) acts as the GEF Implementing Agency.

The objective of the project is to remove the barriers to increased power generation by small, decentralized, grid-connected PV systems. The project strategy builds on the planned Government initiatives to develop a market for small, decentralized renewable energy power generation by ensuring adequate returns on targeted private sector investments.

The project will catalyze the development of decentralized, grid-connected small-scale renewable energy (RE) power generation market in Egypt and the solar PV in particular. The target is to facilitate the installation of new decentralized PV resulting in direct GHG reduction benefits of 66 kilo-tons of CO₂eq during the lifetime of the project. Complementary indirect mitigation benefits are expected from the sustained market growth of the PV market after the project with estimated GHG reduction of about 0.6-0.7 million tons of CO₂eq.

By the end of the project, the project seeks to establish a basis for sustainable market growth by:

- Supporting the design, purchase and installation of the first PV systems as an easily replicable model;
- Establishing an enabling policy and institutional and regulatory framework to provide the basis for sustainable market growth of small, decentralized RE (primarily PV) applications and for attracting adequate financing for the required investments;
- Strengthening the supply chain by building the capacity of the key supply-side stakeholders such as system designers, equipment vendors and installers to offer competitively-priced, good-quality products and services to the targeted stakeholders (including required after-sales services) and by introducing adequate quality control mechanisms to build up customer confidence and positive customer experiences of small, decentralized PV systems; and
- Facilitating the establishment of a financing framework and a network of local financial institutions to support the development of the decentralized PV market by providing long-term financing on attractive terms for PV investments and, as applicable, dedicated funds especially for those households which, without a previous credit history and/or required collateral, may face difficulties in convincing the banks of their credit-worthiness.

Objective

The objective is to provide support to Egypt-PV project in supervising the implementation of grid connected small scale PV systems.

Duties and Responsibilities

Under the direct supervision of PMU, the support of the UNDP Egypt, the technical expert will be responsible for the following tasks:

1. Supervising the installation of photovoltaic (PV) systems and performing site visits and inspections at project implementation sites during various implementation stages.
2. Quality control of PV products and installation of projects receiving Egypt-PV support in accordance with codes, standards, and the technical guideline provided by the project including the required inspections and tests at the commissioning stage;
3. Supervising the monitoring of the annual performance of the PV investments supported by the project and analyzing the results, including interaction with the grid;
4. Participate in site assessments, and work with the project's technical team to evaluate the technical installation and operation of grid connected small scale PV systems
5. Writing technical evaluation and maintenance reports for PV systems.
6. As applicable and in co-operation with the local and /or international grid analysis expert, drafting recommendations for required changes and improvements to the existing grid code for small, decentralized PV systems on the grid and operating them without distorting the grid balance;
7. Participate in any necessary PV projects evaluations.
8. Supervising the monitoring of the And Performing any additional tasks as required by the project manager.

Duration

Twelve months and may be renewed upon the project needs on the basis of the satisfactory evaluation of the performance of the work carried out in the preceding year.

Qualifications and Experience

1. Advanced degree in Engineering or related field to energy efficiency and renewable energy or any other related science-based background;
2. At least 8 years of relevant experiences in the field energy efficiency and renewable energy with a strong experience in PV systems
3. Strong knowledge with the key characteristics of small, decentralized PV applications and hands-on experience with the Egyptian PV market;
4. Strong background in trouble shooting decentralized PV systems
5. Familiar with the operation & maintenance of decentralized PV systems
6. Strong background of PV system design and simulation

7. Ability and demonstrated success to work in a team, to effectively organize it, and to motivate its members and other project counterparts to effectively work towards the project's objective and expected outcomes;
8. Good communication skills and competence in handling project's external relations at all levels;
9. Fluent/good knowledge of the Arabic and English languages.

APPLICATION PROCESS

- For the interested applicants, please e-mail your CV, Technical & Financial Offer for the daily rate to: info@egypt-pv.org
- The subject line of the e-mail should read "Egypt-PV_ Technical Expert"
- Applications are currently being accepted until the deadline of 8th May 2019.