

Terms of Reference for hiring a firm or an individual to develop a training module and conduct a training of installers to install off-grid solar system and Solar Irrigation Pump under the PRIME Program

Background

German Development Bank (KfW) and **Pakistan Microfinance Investment Company (PMIC)** have been implementing a program called PRIME – PMIC-KfW Renewable Energy Initiative through Microfinance in Pakistan that aims to support the financing of quality Pico PV, Solar Home Systems and Solar Irrigation Pumps for households and small businesses in poor grid and off-grid locations in the rural and peri-urban areas of Pakistan. The program was launched in August 2019 with 8 Microfinance Providers (MFPs). It has enabled a responsible financing mechanism by lending to its microfinance partners, building their capacity, providing support on sensitizing awareness, and strengthening their assessment of energy needs. KfW has provided PMIC with a Euro 15 million sub-ordinate loan that qualifies as Equity subordinated capital [EUR 15,000,000.00] or USD equivalent according to the regulations of the SECP. KfW has recently approved an additional Euro 5 million subsidy scheme for the program to address the affordability issue among MFP clients and help MFPs in financing high quality solar systems to rural communities in Pakistan.

PMIC is responsible for the coordination of all program activities, including the pre-qualification of solar suppliers and their products; on-going quality control; consumer awareness for demand generation, trainings, and collaboration with all program stakeholders on effective delivery.

Objectives of the Assignment

Training is one of the major components of the program, which has wide scope at different levels/stages of program implementation. Technical and non-technical orientation about the program for all stakeholders is very much essential in the program. This TOR is to hire an individual/firm to

- (1) write the training modules/manuals on standard installation process – in line with international best practices – to install solar PV systems up to 5Kw and solar irrigation pumping solution up to 10 HP motor size;
- (2) Operation and maintenance of solar PV system;
- (3) conduct on-site training of installers.

Scope of Work

Part A: Training

Under this assignment the individual/firm is expected to develop training modules, installers guide and training tools (PPT, training manual, video) for the following.

- Solar Off-grid systems up to 5kw
- Solar solution for Irrigation pumps up to 10HP motor size

Part B: Installation

The firm will also be required to install at-least 2 blue print models each for 5 KW systems as well as 10 HP motor size irrigation pumps. One system each (5KW system and 10 HP motor size irrigation

solar solution) will be installed in Sindh and Punjab. The systems will be provided by solar suppliers, however the trainer individual/firm will be responsible for installing the system.

Deliverables

1. **Demonstration Installations** – Installation of one 5 kW solar PV system and one 10 HP solar irrigation pump (one in each province) as blueprint models.
2. **Capacity Building** – On-site training of installers at two locations (Punjab and Sindh), including practical demonstrations.
3. **Training Materials** – Comprehensive modules/manuals on installation, operation, and maintenance of solar PV systems (up to 5 kW) and solar irrigation pumps (up to 10 HP), along with an installer's guide, a presentation and videos.
4. **Reporting** – An assignment completion report summarizing content delivered, participants trained, learning outcomes, and recommendations, along with submission of all training materials in soft copy (editable files).

Duration of the assignment/timeline

6 Months

Qualification and experience of firm/individual

- Proven technical expertise in solar energy systems installation and training.
- Minimum of 2 years' experience in conducting trainings and developing training content for renewable energy systems.
- Strong track record of developing user-friendly technical manuals, training tools, and guides.
- Experience in field-based practical training sessions.
Excellent written and verbal communication skills.
- Familiarity with international best practices, safety standards, and quality assurance protocols for solar PV and irrigation systems.