

Terms of References for Construction and Installation of one (1) Solar Min Grid

1. Background

As the sun sets, most villages of Malawi are engulfed with darkness which brings anxiety to men, women and children. Most villages rely on battery operated torches, kerosine lamps and sometimes small solar lamps. Access to electricity in Malawi is at 23%, according to World Bank 2024 report. JICA 2022 report indicated that 3.9% of people living in rural areas have access to electricity.

According to Ministry of Energy 2022 report, electricity represents 3% of energy consumption in Malawi. Energy is a driving force for countries' social economic development. Failure to address electricity needs in rural areas increases poverty as more resources are focused on other sources of energy which are expensive and unsustainable.

IOM under the SDG Accelerator Fund Just Energy Transition project is supporting communities that voluntarily relocated from flood-prone areas to uplands with clean energy solutions to improve lighting in homes and enhance safety, security and address other social needs. Under this project component IOM intends to install a solar-powered electricity mini-grid in TA Ngabu, Chikwawa District.

It is against this background that IOM seeks the services of a reputable, experienced and technically competent service provider, herein referred to as Contractor, to design, install, test and commission a solar mini-grid.

Scope of Work

The Successful bidder is expected to undertake the following key activities.

2.1. Site Planning and Design

- The Contractor is expected to identify a suitable site within the targeted relocation site and carry out all relevant surveys and sites assessments. The Contractor will also be responsible for undertaking an appropriate environmental and social assessment.
- The Contractor will also be responsible for designing the mini grid and obtaining all the necessary regulatory approvals.

2.2. Supply and Delivery of Equipment

- The Contractor is expected to deliver all equipment necessary for the construction, installation and full operation of the solar mini-grid including distribution of electric power to households. All electric and electronic equipment shall be quality certified under the International Electrotechnical Commission (IEC). All other materials shall also meet the minimum requirements of applicable standards. All operational machines and gadgets shall be accompanied with instruction manuals to guide users. The contractor will be responsible for transporting all the materials to the project site.

2.3. Installation and Commissioning

- The Contractor will complete system installation and commissioning procedures for the equipment.
- The Contractor will also perform initial testing and quality assurance procedures to confirm the optimal performance of the equipment.

2.4. Operation and Maintenance Training

- The Contractor will train selected local artisans on the operation and maintenance of the system. The Contractor will also provide user manual with complete instructions in both English and Chichewa, allowing for easy understanding of the operations.

- **2.5. After-Sale Support and Maintenance**

- The warranty period needs to address product defects alongside the required maintenance needs.
- During the warranty period, the Contractor will offer technical support while also providing replacement parts.
- Authorized technicians will check system performance as they teach the local artisans additional skills while conducting performance measurements during these check-up visits.

2. Technical Specifications

Equipment for the solar min grid need to fulfil these regulatory and technical prerequisites at a minimum:

Type of power generation technology: Solar PV

Model: To be agreed during designing phase.

Production Capacity: To be agreed during site planning and designing phase.

Portability: Compact and transportable for ease of relocation within the project site.

Safety: The equipment should include built-in safety systems which protect users from operational accidents.

Durability: The system should be of high standards and durable with measures for protection against lightning and vandalism.

3. Eligibility Criteria for Suppliers

Interested suppliers must meet the following criteria:

- Be a legally registered company with expertise in installation of solar powered systems including mini grid systems.
- Demonstrate experience in supplying similar equipment to humanitarian organizations or development projects.
- Provide evidence of past performance, including at least two references from previous clients.
- Offer a warranty period of at least 12 months.
- Demonstrate capacity for after-sales technical support and spare parts supply.

Deliverables and Timeline

Task	Expected Out Put	Timeline
Supply and delivery of the equipment	Mini grid components delivered at the selected site	Within 4 weeks of contract signing
Installation and commissioning	Fully installed and tested machines	Within 1 week of delivery
Training of users	Training session conducted for IDPs and host community members	Within 1 week of installation
After-sales support	Warranty and technical support services	Ongoing for at least 12 months

4. Submission of Proposal

Interested suppliers should submit a proposal including:

- Company profile and relevant experience.
- Technical specifications of the proposed machine.
- Financial proposal, including cost breakdown and delivery timeline.
- Evidence of past performance (references or previous contracts).
- Warranty and after-sales support details.

5. Evaluation Criteria

Proposals will be evaluated based on the following:

- **Technical Compliance (40%)** – Adherence to required specifications.
- **Experience and References (20%)** – Proven track record in supplying briquette-making machines.
- **Cost Effectiveness Financial stability and Tax Compliance (20%)** – Competitive pricing with a clear cost breakdown.
- **After-Sales Support (10%)** – Warranty and technical support services.
- **Delivery Time (10%)** – Ability to deliver within the required timeline.

6. Submission of Bids

Interested bidders should submit their bids through iommalawiprocurement@iom.int not later than **7th June 2025**. Bids submitted after this date will not be considered.