

# Excerpts: MANUAL OF PROCEDURE

## Green Mini Grid Facility Kenya

Revised July 2018

## Excerpt from Schedule 1: Manual of Procedure

v11.1 - July 2018

### Eligibility, Type of awards

**Managing Entity:** IED Innovation Energie Développement  
2 chemin de la Chauderaie  
69340 Francheville, France  
Tel: +33 (0)4 72 59 13 20  
Fax: +33 (0)4 72 59 13 39  
IED Kenya  
Methodist Ministries Centre  
Block C - 1st floor - Oloitoktok Road  
P.O. Box 52702 - 00100 Valley Arcade - Nairobi  
Tel: +254 (0)20 259 53 11 (to 16) - Ext 127

Web site: <http://www.gmgfacilitykenya.org>

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## Type and nature of support

Under the GMG Kenya programme, the Managing Entity will provide two main kinds of support to GMG Facility Recipients:

- Technical assistance (TA) and market development activities structured on a demand-driven basis at the project level.
- Financial support through the grant facility to encourage private operators to build and operate green mini-grids providing access to electricity in Kenya.

Both the technical assistance and the financial support facilities will be tailored to the specific needs of the eligible GMG Facility Recipient. A flexible approach will be used to design and implement the service awarded, taking into consideration the level of advancement of the recipient projects: pre-feasibility, development or execution phase of the project cycle. The stages of the project cycle are described below.

### ■ **Pre-feasibility stage:**

The pre-feasibility stage is the phase of the project cycle where the technical and business aspects of a project are defined in broad and estimated terms, but specific details require further investigations. Projects at this stage should have identified an implementation site, potential energy generation resources, potential clients, estimated generation capacity, and should be anchored on a formally registered company (or entity). Supporting documents include informal agreements, for example, a memorandum of understanding, application for compliance including licensing, concept notes, identification reports, and/or prefeasibility reports.

### ■ **Development stage:**

The development state is the phase of the project cycle where the key elements that are needed to commence construction of the project have been, or are about to be secured, including a completed detailed feasibility study, land rights acquired where applicable, power purchase or energy service agreements secured, where applicable, completed environmental and social impact assessment where applicable, term sheets and/or grant agreements secured, social notifications have been completed if not done prior, secured licensing or application for compliance including licensing at an

advanced stage, duly executed project construction and installation contract e.g. EPC Contract, the Recipient has attained financial close, and an operational full time management structure is in place.

The GMG Facility Kenya will also consider Applicants, who have already implemented a pilot site(s), and a project that is at the development stage, even if the project has not yet secured all the key elements that are needed to commence construction of the replicated project.

■ **Execution stage:**

The execution stage is the phase of the project cycle where construction of the project is starting, undergoing, or completed. Included are projects that are already delivering and selling electric power to end users, and are seeking support to scale or expand their operations.

## **Technical Assistance Support**

The GMG Technical Assistance facility is focused on providing support at the project level. Specific support options include, but are not limited to the following:

- Early-stage support might include a Market Willingness To Purchase (MWTP) study for electricity and associated services; site selection and/or other market development studies.
- Demand assessments with output taken into consideration for GMG designs.
- Tariff studies with output taken into consideration in business models.
- Environmental and Social Impact Assessments and NEMA application support.
- Legal review and compliance advisory services.
- GMG engineering support including methods and tools ready for replication on other sites, and system design optimisation.
- The development of financial models, support to attract capital and financing, financial structuring of the transaction and coordination with local banks, and transaction advisory services.
- Improvement of the social and economic impact of the project may include design of microenterprise models, i.e. for small shops or larger SME focused on productive use of energy, a social service programme, and/or advice on community engagement.

- Support at the community and policy level may include, how to involve local communities and local decision-makers, support to obtain required licenses and permits, support in conducting an Environmental and Social Impact Assessment (ESIA) study, and acquiring associated authorisations or licenses.
- Other support requested by the Applicants, enabling the execution of the GMG Project.

The Managing Entity will deliver Technical Assistance services by the internal expert team, (co) finance Technical Assistance services provided by external experts recruited by the Recipient as appropriate, or a combination of both options for relevant cases.

The Technical Assistance support requested by the Applicant shall define the scope of the Technical Assistance Terms of Reference (ToR). The ToR will include a project description, justification and objectives for the required Technical Assistance, scope of the Technical Assistance provided by the Managing Entity, scope of the recipient contribution, qualifications and experience of the required experts, duration of the assignment, expected deliverables, and an activity and milestones schedule.

Selected Applicants will complete the Technical Assistance (TA) Agreement (refer to Schedule 3 for the TA Agreement template) with the Managing Entity. In addition to the TA details including the total technical assistance budget allocated by the Managing Entity, the agreement will define performance criteria and include a mechanism for assessing the performance of the Technical Assistance support received.

External experts may be recruited by the Recipient to provide Technical Assistance services, however, the selection of these external experts must follow AFD Procurement Guidelines (refer to Schedule 9). The Managing Entity will validate the Terms of Reference, the budget, and the deliverables of the Technical Assistance requested.

GMG Facility Recipient can benefit from Technical Assistance support at all project stages - pre-feasibility, development, and execution, provided the TA budget is within the limits defined in section 2.1.4 below.

### **Grant support**

The GMG Facility Kenya will provide financial support in the form of a grant to encourage private operators to build and operate mini-grids in Kenya that extend access to electricity to as many customers as possible.

For eligible GMG project, the grant aims at bringing the project to financial viability and allowing operators to sell the electricity at a price close to the national tariff.

Two types of grants will be considered:

- **Investment Grants:** Grants to assist developers cover the capital expenditure costs of establishing a mini-grid, including power generation, distribution and associated infrastructure. These grants are disbursed on a cost calculation basis when specific milestone of the project implementation are met.
- **Output-Based Grants:** Grants disbursed on a per connection basis (e.g. as X euros per connection). The amount of the per-connection grants may vary from project to project depending on the choice of technology, level of service, approved end-user tariff, local conditions of the site, etc.

Each GMG project will be evaluated on a case-by-case basis to identify the type of grant appropriate and the amount allocated, using a mix of the following criteria:

- The level of subsidy per connection; as it relates to the viability of the business model as well as how it aligns with consumer prices
- The IRR (Internal Rate of Return) of the project;
- The amount of grant relative to other project financing required to achieve financial viability and sustainability;
- The amount of potential private financing available;
- The potential for replication with the reduction of the grant component;
- The project impact on social and economic development, as well as on environment;
- The potential negative environmental and social impact of the project, and an overview of the possible mitigation measures.

### 1.1.1 Output Based Grant

Output based grants are also known as performance-based grants or results based grants. These grants will be disbursed on a per connection basis with a pre-agreed amount per connection (in euros). The amount per connection will be calculated for each project separately.

- The amount of the per-connection grant may vary from project to project depending on the choice of technology, level of service, and approved end-user tariff, among other variables specific to a given project.

- The amount of the per-connection grants may vary for the same project, depending on the type of connection - households, small business, social service, or other.

The Managing Entity will sign an Output Based Grant Agreement (refer to Schedule 3 for an Output Based Grant agreement template) with the selected GMG Recipient in order to: (i) define the amount of the per connection grant, (ii) identify the modality of disbursement, and (iii) agree upon the responsibilities of each parties, including reporting obligation of the GMG Recipient.

### **1.1.2 Investment Grant**

Investment grants are aimed to assist GMG Facility Recipients to cover the capital expenditure costs of establishing a mini-grid, and could include power generation, distribution, and associated infrastructure. The grant will be distributed based on accomplishment of milestones agreed between the Managing Entity and the GMG Recipient.

Only *eligible costs* can be considered when calculating the investment grant. An *eligible cost* is a cost that has been presented by the Applicant in the Project Documents submitted and accepted by the Managing Entity. The Applicant needs to accurately estimate their capital expenditures for which they want to apply for the Grant, and be fully transparent on the cost calculation methodology. If the Managing Entity has any doubt on the cost estimation provided by the Applicant, it could require justification, benchmark, and/or audit the Applicant on the cost calculation methodology used. The Managing Entity will also take into consideration the estimated potential number of connections as it relates to the overall total costs approved.

Awarding an investment grant is subject to the accuracy of the information provided in the Project Documents. Any inconsistent information within the budget, such as arithmetical errors; inaccurate or unrealistic costs, and inclusion of ineligible costs, may lead to the Managing Entity imposing modifications or reductions on the eligible cost estimates. The grant amount will therefore be recalculated with the adjusted budget. It is in the applicant's best interest to provide a realistic and cost-effective budget.

The Managing Entity will sign an Investment Grant Agreement (refer to Schedule 3 for Investment Grant agreement template) with the selected GMG Recipient which will define: (i) the amount investment grant per project, (ii) the modality of disbursement based on key

milestones achieved by the GMG Recipient, and (iii) the responsibilities of each party, including reporting obligation of the GMG Recipient.

## 2 Eligibility and the Application Process for the GMG Facility Kenya

### 2.1 Eligibility criteria

#### 2.1.1 Eligibility of Applicants

In order to be eligible for Technical Assistance or Grant support, the GMG project applicants must:

- a) At the pre-feasibility or development stage, be a legal entity registered in a country acceptable to AFD, and be compliant with the regulation and legislation of this acceptable country;
- b) At the execution stage, be a legal entity registered in Kenya, and be compliant with Kenyan regulation and legislation; including having, or be in the process of obtaining necessary licenses.
- c) Belong to one of the following entity categories:
  - Non-government organization
  - Local institution
  - Private company
- d) Demonstrate their direct contribution to the objectives of the programme.
  - i. **Increase access to electricity** – The project must deliver new electricity connections, and increase Kenya's electricity connectivity rate. Priority will be given to proposals with more than 500 connections combined.
  - ii. **Improvement of the social and economic conditions in Kenya** – The project must have a positive and sustainable social and economic development impact. (Refer to Schedule 5).
  - iii. **Mitigation of climate change through the use of renewable energy** – Financial support will only be applicable for power generation from renewable energy sources. Mini grid hybrid systems that combine renewable energy resources and fossil fuels will still be eligible for support from the GMG Facility Kenya, however, grants will only subsidise the renewable energy component.



- e.g. a tea factory or flower farm that first develops energy solutions for internal use, then sells the excess to Kenya Power and or adjacent retail clients.
- The GMG Facility support is focused on developing the generation/distribution component of the IPP that is targeting local un-electrified households, businesses, and social services, and focuses the subsidy on the distribution grid.
  - For this type of GMG, the maximum amount of subsidy that could be allocated to the Applicant shall be determined with regards to the investment budget targeting local un-electrified householders, businesses and social service.
- **Type 2 mini-grids** (100 kW – 1000 kW): Mini-grids with a generation capacity equal to or greater than 100 kW but less than 1000 kW.
- Typically from micro hydro, gasifiers or hybrids (PV or wind).
  - For example, such mini-grids have been delivered through a public model in which REA is in charge of the construction of the generation and distribution infrastructure, and KPLC is in charge of operation and maintenance.
- **Type 3 mini-grids** (< 100 kW): Also referred to as micro-grids, these mini-grids have a generation capacity of less than 100 kW.
- Differ greatly from the utility-scale approach of KPLC.
  - They are typically based on solar PV (or PV hybrids)
  - They are relatively mobile, cover smaller radiuses with low voltage distribution.
  - Tariffs are largely unregulated and cost reflective. Until recently, these kinds of projects were unlicensed.
  - GMG Facility projects will need to comply with all Kenyan mini-grid regulations; tariff and permit approvals.
  - Priority will be given to proposals with more than 500 connections combined. If several mini-grid projects are targeting very small population centres, they should be packaged into one bigger project.
  - Stand-alone SHS for single customer are excluded. A micro-grid (solar) system should provide power to several customers. Stand-alone solar home systems such as solar lanterns will not be considered.

The GMG Facility Kenya does not prioritize any of the three above listed types of projects. Priority will be given to projects with high social impact, reasonable funding needs, positive

environmental and social impact, potential for replication and sustainability, and high contribution to reach the programme objectives within given timelines.

Additionally, applicants might be required to illustrate the contributions the mini grid projects will make towards the National electrification strategy. The projects should not be in conflict with any policies and regulations of the Government of Kenya.

### 2.1.3 Eligibility of Implementation Schedule

In order to benefit from the GMG Facility, both the Technical Assistance facility and the Grant facility, Applicants should present an implementation schedule and demonstrate results within the timeframe of the programme. For projects supported by the GMG Facilities, all milestones linked to implementation must be met before the provisional end of the programme, which is 30<sup>th</sup> June 2020.

### 2.1.4 Eligible budget for Technical Assistance at pre-feasibility and development stage

The maximum amount that can be allocated by the GMG Facility Kenya for Technical Assistance at pre-feasibility stage and development stage varies based on project cycle, the maturity of the applicants' business, the potential of making connections, and the strength of the justification of long-term strategy and sustainability presented in the concept.

Figure 1: Maximum amount allocated per GMG Recipient at pre-feasibility and development stage

Project cycle stage	Pre-feasibility stage	Development stage
<b>Maximum amount for the Applicant</b>	€ 50,000	€ 250,000
<b>Maximum amount / potential connection</b>	€ 100	€ 125

### 2.1.5 Eligible budget at execution stage

The maximum amount that can be allocated by GMG Facility Kenya at execution stage and represents a cumulative amount for Technical Assistance and Grant support depends on the number of estimated connections. The maximum amount to be allocated cannot exceed €450

per connection. In the case of investment grants, 50% of capital expenses may be allocated up to a maximum of €450 per potential connections accounted for in the financials, or whichever is less.

Note that no disbursement of funds will be made at this stage, without a tariff and permit approval from the Kenyan authorities. A Grant Agreement can be signed, but a tariff approval and permit will be a pre-condition in the contract for any disbursement to be made during the execution stage.

Figure 2: Maximum amount allocated per GMG Recipient at Execution stage

	Cumulative Technical Assistance and Grant Support (*)
<b>Maximum amount allocated to a GMG Recipient</b>	€ 5,000,000
<b>For Output-Based Grant: Maximum amount / connection<sup>2</sup></b>	€ 450
<b>For Investment Grant: percentage of eligible costs</b>	50%

(\*): Including Technical Assistance support provided by the GMG Facility Kenya to the same GMG Recipient at earlier stages.

### 2.1.6 Definition of a “Connection”

One (1) Connection refers to power being supplied to one of the following:

- household
- small shop (market, barber, etc.)
- a small to medium size business using energy for productive use
- a social service connection (school, clinic, etc.)

For the purpose of calculating the maximum amount of Grant and Technical Assistance, a connection refers to 1 of those connection, independently of the customer profile, consumption, and/or size. The developer may present justification for additional funding for a single connection to a social service for example, if in fact the cost justified is verified. In which case, this rule may be adapted during the review of project application.