Green Mini-Grids Market Development Programme
From Phase 1 to Phase 2

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GMG Market Development Program

- Implemented by the **SE4All Africa Hub** in collaboration with the Bank’s **Sustainable Energy Fund for Africa (SEFA)**.
- In the framework of **SEFA Component III**, enabling Environment.
- A mix of **internal staff and advisory services**.
- Designed in 2014/15 through a **consultative process**.
- Reflects the areas of intervention established by the **SE4All High Impact Opportunity (HIO)** on clean energy mini-grids and actively collaborates with some of the HIO partners on its implementation.
- **Multi – phased**: to assure greater degree of flexibility to adapt to the changing landscape, closer coordination with partners and gradual take-off in parallel with increasing internal implementation capacity.
- **Phase 1** ending first half 2017, when **Phase 2** is expected to begin.
Barriers to GMG development

The GMG MDP has identified a number of key barriers to development of a GMG sector in Africa, including:

- Gaps in the policy and regulatory framework (perhaps most important, because precursors to investment), specifically:
  - Tariffs
  - Licensing
  - Arrival of the national grid
  - Inconsistency/changing government positions
- Lack of detailed market intelligence by country
- No proven business models as yet (profitability/sustainability)
- Very limited experience operating/maintaining GMGs
- Households lack purchasing power, while little productive use
- Lack of capacity of key stakeholders, both public and private
- Access to finance, especially debt
- Risk, especially currency risk
Removing or reducing market barriers and strengthening the ecosystem for the scaling-up of GMGs investments in Sub-Saharan Africa

### Barriers Identified

1. Early stage market fragmentation
2. Lack of proven commercial business models
3. Inadequate regulation, policy gaps or uncertainty
4. Human skills, institutional capacity issues and lack of standardization
5. Lack of access to affordable longer term finance

### Business Lines

1. Market Intelligence
2. Business Development Support
3. Policy and Regulatory Support
4. Quality Assurance
5. Access to Finance
Status of MDP Phase 1 implementation

- **Market Intelligence** – Working with consortium made up of Carbon Trust/UNEP/ECREEE. Have analyzed existing market intelligence methodologies and determined information to collect/process/make available to developers. First market study conducted in Mozambique with Ethiopia in progress; DRC, Mali and Burkina Faso in the pipeline.

- **Business Development Services** – Working with consortium made up of Energy4Impact/INENSUS. Concluded gap analysis assessing developers’ TA needs. GMG toolkit and developer helpdesk website ([http://greenminigrid.se4all-africa.org](http://greenminigrid.se4all-africa.org)) being launched this week – subsequent provision of TA to developers.

- **Policy and Regulatory Support** – Conducting inventory of existing GMG policy instruments. Developing pan-African GMG principles and strategy, to be endorsed by AU Energy Ministers meeting in late November.


- **Quality Assurance** – No activities planned under 1st phase of MDP.
Analysis of existing methodologies

Source: GMG MDP report based on Carbon Trust/UNEP/ECREEE analysis
Analysis of existing methodologies

Table 3: Scores out of five, by methodology and criteria (N/A means the criteria isn’t valid for that methodology, Not Know means the answer is not known)

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Scope to combine various aspects of different methodologies – proposed combined methodology currently being applied in first few pilot countries

Source: GMG MDP report based on Carbon Trust/UNEP/ECREEE analysis
Snapshot of the GMG Help Desk

Welcome to the Green Mini-Grid Help Desk. We provide a complete information service for developers of green mini-grids (GMGs) in Africa. The website has been developed by Energy 4 Impact (formerly GVEP International) and INENSUS for the Sustainable Energy for All (SE4All) Africa Hub, hosted by the African Development Bank (AfDB) and funded through the Bank's Sustainable Energy Fund for Africa (SEFA).

http://greenminigrid.se4all-africa.org
Lessons Learned to Date

• Information lacking for conducting robust country-specific market studies, esp. information on hydro and biomass potential, productive use potential and anchor clients

• Policy gaps can be narrowed to simplified licensing, cost-reflective tariffs and main grid arrival, and GMG developers identify policy gaps as the most critical obstacle to GMG development

• All countries reference importance of mini-grids in their SE4All Action Agendas, but very few countries have begun developing a GMG policy framework and not many specific policy instrument examples available

• Main grid conservatism continues to push back against GMG initiatives

• Though limited grants are available and equity is growing, commercial debt is virtually non-existent. Developers also express need for RBF to support rural consumer connections

• Many local currencies have lost from between 25 to 50% of their value over the last 30 months, making currency risk a very critical issue
Early Reflections on Phase 2

Market Intelligence:
• Conduct market intelligence studies in ten high impact SE4All/GMG countries (grid extension plans, off-grid areas, policy and regulatory framework, population centers, renewable energy resources, etc.); focus on making intelligence more robust (e.g. analyzing small hydro and biomass potential)
• Map productive use and anchor clients in five countries

Business Development Services:
• Maintain and expand knowledge products and data available on GMG Developers Help Desk, notably adding more country specific information
• Ramp up provision of Technical Assistance to GMG developers, both through the Help Desk and through more intensive TA support

Policy and Regulatory Support:
• Design and populate GMG Policy Helpdesk with existing policy instruments, knowledge products and tutorials and provision of TA to public sector actors
• Facilitate implementation of Pan-African GMG Strategy in participating countries
• Develop rural electrification plans that include geographic markets for mini grids and off-grid solar in five high impact SE4All/GMG countries
Early Reflections on Phase 2 (cont’d)

Quality Assurance:
• Introduce Quality Assurance Framework in three countries following Global LEAP implementation guidelines (see more on next slide)

Access to Finance:
• Design results-based funding facility in support of GMG rural consumer connections
• Conduct commercial financiers capacity needs assessment in view of mobilizing local debt facilities, potentially linked to AfDB envisaged credit lines
• Develop commercial financiers GMG training programme in view of mobilizing local debt facilities, again potentially linked to AfDB envisaged credit lines
• Examine feasibility of partial credit guarantees for banks for GMGs, in collaboration with other departments at the AfDB (i.e. external to GMG MDP at the SE4All Africa Hub)
Quality Assurance

- **Global LEAP’s Quality Assurance Framework (QAF):** (1) defines levels of energy service provision in tiers based on power quality, availability and reliability, and (2) specifies a common accounting and reporting framework. The result is greater standardization of mini grid business models, and “truth in advertising” aimed at customers, investors and regulators.

- Common classification system makes it easier for project bundling, releasing access to larger-scale finance at more competitive rates and tenors.

- GMG MDP will introduce the QAF in three emerging GMG markets sequentially, in order to adapt and improve implementation.

- Following the proposed Framework’s 8-step process, GMG MDP will apply an iterative consultative process with the relevant national stakeholders, clearly defined roles, focused on existing mini grids. GMG MDP will also involve regional regulators’ associations as appropriate.

- Process will be thoroughly documented so as to facilitate sharing of lessons learned.

- GMG MDP will engage firm/consortium through competitive bidding process to partner in QAF implementation.
We would appreciate your input into our developing Phase 2 concept...

- Are these proposed activities appropriate?

- Are there additional appropriate activities that we are omitting notably in the area of quality assurance?

- Is the proposed programme sufficiently robust?

- Do you have other comments or suggestions for the GMG MDP team?
Thank you!

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