



GREEN MINI GRID
FACILITY | KENYA
POWERING PEOPLE

FINANCING PRODUCTIVE USE OF ENERGY APPLICATIONS FOR GREEN MINI GRIDS

July 2, 2019

Managing Entity:



In association with:



I-DEV INTERNATIONAL
Unlocking Business Potential in Frontier Markets



Key Financing Gaps Identified Among GMG Stakeholders

**AVAILABILITY OF
FINANCING
MECHANISMS**

**RISK MITIGATION
STRATEGIES**

**LACK OF
LINKAGES**

As a practitioner, donor, investor, industry association or researcher, which specific challenge have you encountered regarding the financing of productive use activities?

GMG: PUE Access to Finance Solution

DESIGN PHASE

- Portfolio Identification
- Customer Identification
- Financial Product Design



PRE-LAUNCH PHASE

- Equipment Procurement
- Partnerships



IMPLEMENTATION PHASE

- Marketing
- Customer Training
- Credit Process





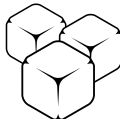


Where we are today...



Design Phase: Portfolio Identification

Core High Income and Energy-Linked Opportunities:

 <p>Milling</p> <p>3 kW</p> <p>Ksh 80-100k</p> <p>Maize, sorghum, millet, cassava</p> <p>Seasonal</p>	 <p>Irrigation</p> <p>2-3 kW</p> <p>Ksh 300-400k</p> <p>Tomatoes, capsicums, etc</p> <p>Seasonal</p>	 <p>Refrigeration</p> <p>2 kW</p> <p>Ksh 15-35k</p> <p>Dairy, cold drinks, restaurant</p> <p>Not seasonal</p>	 <p>Cold Storage</p> <p>4-8 kW</p> <p>Ksh 1 M</p> <p>Vegetables, fish</p>	 <p>Ice-Making</p> <p>14 kW</p> <p>Ksh 4 M</p> <p>Potential anchor load</p>
Agricultural site			Fishing site	

Design Phase: Map of GMG Sites

Map of GMG sites

137

existing and targeted mini-grid sites in the GMG Facility portfolio over the next 2 years

76

Sites eligible for the pilot = approx. 600-900 assets to be financed



Design Phase: Customer Identification



Milling



Refrigeration



Irrigation



Ice-making



Cold storage

Category 1
Q1 2019

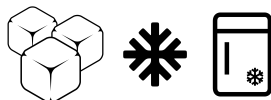
Category 2
Q2 2019

Category 3
Q2 2020

Busia County
8 sites



Homa Bay County
1 site



Kisii & Nyamira
County
36 sites



Busia County
22 sites



Siaya, Homa Bay, Lamu,
Kajiado, Tana River Counties
8 sites



Meru County
1 site



Design Phase: Design a Solution with a Strong Financing Partner

Focus on...

- Unlock **greater commercial and industrial** opportunities
- Create micro-hubs of **diverse, de-risked economic development** by boosting entire communities
- Address **full spectrum of local business**, from:
 - Posho milling → external market
 - Barber shops → local market



We see additional opportunity...

To complement Equity Bank's interest in providing more debt loans to SMEs operating mini grids.

Design Phase: Financial Product Design

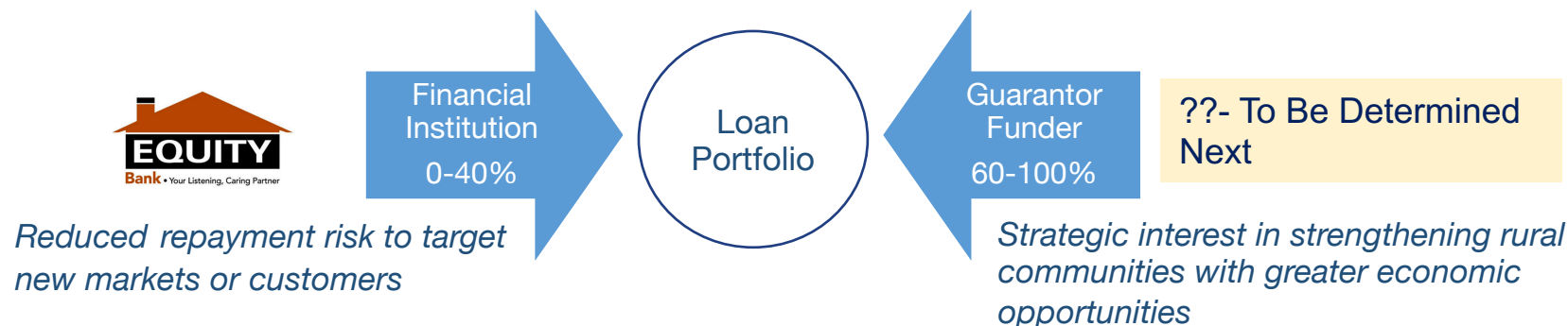
Proposed Terms of PU Equipment Loans

Asset Finance

Loan Amount Range (Ksh)	Tenure (months)	Pricing	Beneficiary Contribution	Collateral
10,000 – 100,000	<12	13% + processing fess + credit life insurance	30% upfront deposit	Group co-guarantee Chattel mortgage & registration of the equipment Loan Guarantee
101,000 - 300,000	< 24			Chattel mortgage & registration of the equipment Loan Guarantee
>300,000	<36			Chattel mortgage & registration of the equipment Any acceptable formal collateral

Design Phase: Financial Product Design

Loan Guarantee: Proposed Terms to De-Risk & Unlock Commercial Lending



PU Activity	Type	Sites	Units /Site	CAPEX Per Unit (KSH)	Deposit	Loan Principal /Unit (KSH)	Total Loan Disbursed by FI (KSH)	Loan Guarantee lower range 60% (KSH)	Loan Guarantee higher range 100% (KSH)
Milling	Agriculture	64	2	80,000	30%	56,000	7,168,000	4,300 800	7,168,000
Refrigeration (Dairy)	Agriculture	64	2	30,000	30%	21,000	2,688,000	1,612 800	2,688,000
Irrigation	Agriculture	40	2	320,000	30%	224,000	17,920,000	10,752 000	17,920,000
Ice-making	Fisheries	12	1	4,000,000	30%	2,800,000	33,600,000	20,160 000	33,600,000
Refrigeration (Fish)	Fisheries	12	2	30,000	30%	21,000	504,000	302,400	504,000
Cold Storage	Mix	20	1	1,000,000	30%	700,000	14,000,000	8,400,000	14,000,000
Total (KSH)							75,880,000	45,528,000	75,880,000
Total (USD)							758,800	455,280	758,800

Next: Pre-Launch Phase

PU equipment needs to be...

Accessible | Affordable | Quality Vetted | Compatible with MG | Serviced

BUT Few PU products have been developed to meet the needs of mini grid customers.

Recommended equipment suppliers:

Milling



Irrigation



Refrigeration



Cold Storage



Next: Roll Out Phase

Targeted Marketing with Partners

Local bank branches | GMG developer | Community Leaders

Training

Business model and management | Equipment installation and maintenance | Financial literacy
Equity Group Foundation working with MG developers and equipment suppliers

Credit Process

Loan application → loan appraisal → credit committee → security → repayment collection

Potential partners to support roll-out...

CLASP, SOLAGEO, Rent to Own, E4i, EELA, GMG Facility, GMG Developers, AMDA, GOGLA, Equipment suppliers

Key Factors to Success

1. Accessibility

Commercial model to manage credit process in remote MG communities

2. Credit Analysis

Need for accurate demand data and records on historical performance

3. Consumer Adoption

Cost-benefit analysis for conversion from diesel to mini-grid electricity

4. Mini Grid Technical Specifications

Balancing quality and compatibility

Q&A



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