

# The Role of Financial Institutions: Who Need Finance?

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## Who Needs Finance: Everyone!

- ✓ **End-users:** need finance to purchase a range of energy services to meet business and household energy needs
- ✓ **Distributors/suppliers:** need supplier credit to purchase energy products to sell to end-users
- ✓ **Energy enterprises:** need different types of finance depending on their stage of development
- ✓ **Retail financial institutions (banks /MFIs/ co-operatives):** need finance to develop/grow energy portfolio (to finance micro-businesses, consumers and SMEs)

## End-User Finance: Range of Mechanisms/Businesses Models

<b>Microfinance</b>	<ul style="list-style-type: none"><li>• Microfinance organization, bank or credit cooperative provides energy related financial products</li></ul>
<b>Microleasing</b>	<ul style="list-style-type: none"><li>• Energy enterprise leases energy products to end-users</li></ul>
<b>Payment Systems</b>	<ul style="list-style-type: none"><li>• Financing is provided through a metering system that allows the end-user to pay for energy use in small increments</li></ul>
<b>Mobile Money</b>	<ul style="list-style-type: none"><li>• Bill payment/financing for energy via mobile phone</li></ul>
<b>Remittances</b>	<ul style="list-style-type: none"><li>• Financing for energy product is provided by family members in the diaspora via cross-border money transfers</li></ul>
<b>Traditional Community Finance</b>	<ul style="list-style-type: none"><li>• Financing for community-based energy services is provided through informal community collection mechanisms</li></ul>

## **Microfinance:** Range of Financial Products for Energy

- ✓ **Loans for income generating activity**
- ✓ **Loans to improve household quality of life**
- ✓ **Loans to promote improved energy efficiency (usually tied to housing improvement loans)**
- ✓ **Targeted savings products**
- ✓ **Targeted remittance products**
- ✓ **Microleasing products**



## Microfinance: Uses of Loan Products

- ✓ **Retail loans for poor individuals/farmers** – usually for solar lamps (with cell phone charging capacity), solar home systems, improved cookstoves, LPG canisters, biogas digesters etc. for business, household or farm use – sometimes tied to micro-housing loans
- ✓ **Small SME-type loans for energy-related businesses** – usually for entrepreneurs such as stockists, those running solar battery charging stations or LPG microfilling stations, those making locally produced biogas digesters or improved stoves, food vendors or those who are suppliers along the value chain such as battery transporters, shops/franchises selling stoves and lanterns etc.)
- ✓ **SME-type loans for communities** – usually for microgrids

# End-User Finance: Microfinance - One-Stop-Shop Model

## Grameen Shakti (Bangladesh)

- Independent business within the Grameen network to provide energy solutions for off-grid Bangladeshis
- Grameen sources its own SHS components: panels, batteries, regulators, wiring (does not partner with local energy companies)
- Creates jobs through cadre of women technicians who do installation and provide after-sales service

## Key Lessons

- Leverages Grameen microfinance network, but operates independently
- High rural population density enables economies of scale
- Strong attention to after-sales service by GS-trained technicians
- Low-cost financing



## Results/Impact since 1996:

<b>700,000 Solar Home Systems installed</b>	<b>300,000 improved cookstoves distributed</b>	<b>20,000 biogas digesters installed</b>
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## End-User Finance: Microfinance - Partnership Model

### Kenya Women's Finance Trust

- Tier 1 MFI with over 400,000 women clients
- Provides both end-user finance and supply-chain finance to stockists who sell the products
- Partnered with SunTransfer, a German solar-lantern company - expanding to other suppliers
- SunTransfer trains retailers to service devices
- Prior programs failed through poor technology choices and inadequate post-loan service and maintenance

### Key Lessons

- Selecting appropriate technology level and a partner that can provide after-sales service is key
- Supply chain finance helps MFI avoid dealing with distribution directly

**KWFT**  
Microfinance



# End-User Finance: MicroLeasing

## STIMA Systems (Kenya)

- Uses affordable asset-leasing model for portable solar chargers and lights
- Has proprietary “key” that activates solar product
- Operates via a network of rural agents who distribute the chargers and collect the payments
- Partners with MFIs, churches etc. to source clients

## Key Lessons

- Manages risk though money “key”
- Uses simple, durable, portable technology - suited to rural African context
- Recruitment of alpha nodes as “local agents” network to manage sales
- Leasing allows for ongoing product upgrading which is valued by poor consumers



STIMA



# End-User Finance: Payment Systems

## SIMPA Networks (India)

- Progressive Purchase model - via metered system - where each payment for energy adds up towards the total purchase price of the solar home system.
- Customers send incremental payments using mobile phone - code entered into controller activates system and triggers energy
- Once fully paid, the solar energy system unlocks and delivers free electricity for the life of the product

## Key Lessons

- Manages risk through meter
- Target customers value ability to make flexible payments and the pay-as-you-go nature of the pricing model - similar to lessons learned in microfinance about customer preferences
- Can be used with community-based systems such as microgrids



# End-User Finance: Mobile Money

## M-Kopa (Kenya)

- M-KOPA's mission is to help Kenyans acquire productive assets through simple and secure mobile technology
- Uses mobile phone technology as a way to pay for clean energy (m-pesa based system)



## Key Lessons

- In markets where mobile money is gaining traction - payment for energy services via mobile phone is attractive because it is safer (cash-free) and more convenient for the consumer



## End-User Finance: Remittances

### SogeXpress (Haiti)

- Families in the diaspora use remittances to pay for solar systems in Haiti
- Partnered with local Haitian distributor who imports products, deals with shipping and customs and provides warranties
- Partnered with agent network in diaspora who promote project (primary business phones)
- Revolving fund set up to “recycle” money received to use for future purchases
- Platform is product neutral - currently used for solar devices but could support a range of other products including cookstoves

### Key Lessons

- Products that cost about the amount of the average remittance work best on the platform
- Detailed pricing and value chain cost analysis supports long-term sustainability goals
- The development of a revolving fund mitigates partner risks

**KLERE KAY FANMI W AN AYITI** avèk Lamp solèy

TI LANP S250      KAY KLERE 2 ANPOUL      KAY KLERE 4 ANPOUL

Voye yon kit limyè ki mache ak enèji solèy pou moun ki an Ayiti. Peye l nan 12Tel isit, moun Ayiti a pwal chache l nan SogeXpress ki pi pre l la.

Program sa a se yon kolaborasyon ant SogeXpress, Food Express, Arc Finance ak sipò FM/BD ak Clinton Bush Foundation an Ayiti.

**12Tel**      **SOGEXPRESS**

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## Enterprises Financing: By Stage of Development

**Stage of development funding for BOP focused energy enterprises is needed to help them scale:** Providing appropriate financing for the stage of development of BOP focused energy enterprises appropriate financing for the stage of development of BOP focused energy enterprises is key if they are going to reach the millions of poor people who currently do not have access to energy

- Start-ups need seed funding (grants, soft loans and equity on reasonable terms)
- Mid-sized companies need specialized revolving funds to provide working capital
- Large scale companies need increased and targeted project finance

**Key role for multiple players:** venture philanthropists, foundations, angel investors, impact investors, multilaterals, bilaterals

## Retail Financial Institutions: Portfolio Financing

**Retail financial organizations (banks, MFIs, credit unions, co-operatives) need funding and technical support to develop or grow energy lending portfolios to provide end-user finance:** Supporting end-user finance is essential if poor people are going to be able to pay for sustainable energy sources

- Need funding facilities for MFIs and other FIs to on-lend to clients
- Need funding for technical support
- Need loan / risk guarantee funds

**Key role for multiple players:** foundations, larger banks, multilaterals, bilaterals

# **Supplementary Slides**

## Arc Finance: Changing Lives Through Energy and Finance

- ✓ Arc's **mission**: to promote and expand access to financing for energy, water and other basic needs to build the income and assets of poor people around the world
- ✓ Innovative organization **launched in 2008** in response to practitioner demand to bridge knowledge and resource gaps between the energy and finance sectors
- ✓ A **neutral platform** for knowledge, brokering transactions, bringing partners together, spurring investment, and incubating new business ideas
- ✓ Arc operates **globally** and supports the improvement of existing energy lending programs in Africa, Asia and Latin America
- ✓ Initial **funding** from Citi Foundation



- **Global partners and collaborators:**
  - ARD, USA
  - water.org, USA
  - Safewater Network, USA
  - E+Co, USA
  - Ashden Awards, UK
  - Basel Agency for Sustainable Development (BASE), Switzerland
- **Countries of operations and local partners:**
  - Ethiopia, Kenya, Philippines, India, Pakistan, Afghanistan, Nicaragua, Haiti, Argentina and Brazil

# Managing Director

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