

EarthSpark International



ENERGY ACCESS IN HAITI
CLEAN ENERGY SOLUTIONS CENTER WEBINAR





EARTHSPARK INTERNATIONAL

WE BUILD CLEAN ENERGY ACCESS IN HAITI.

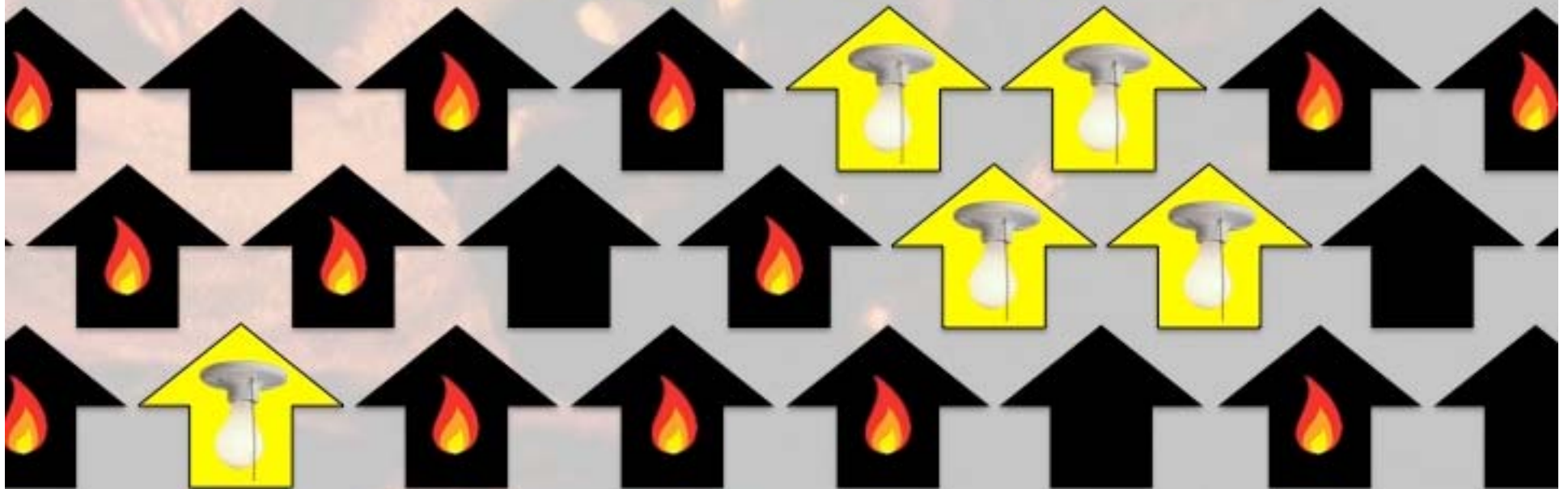
EarthSpark International is an **incubator** for social businesses that deliver clean and efficient energy services.

ENERGY POVERTY IS EXPENSIVE

75% of households without electricity access in Haiti

Households spend

- \$10/mo. on kerosene & candles
- \$4/mo. on cell phone charging





THE PROBLEM

**NO ELECTRICITY=
LOW PRODUCTIVITY**

A group of children and an adult are gathered around, looking at something on the floor. The children are of various ages and are looking intently. The adult is also looking down. The background is a plain wall.

THE GOAL

**AFFORDABLE, RELIABLE
ELECTRICITY=
UNLOCKED POTENTIAL**

CHILDREN CAN STUDY
BUSINESS STAY OPEN
ENABLES REFRIGERATION
BETTER HEALTH
AGRICULTURE IS TRANSFORMED

CLEAN ENERGY RETAIL


**Enèji
Pwòp**

Clean Energy Entrepreneurs > 100
Revenue > \$150,000 since 2010
Products sold > 8,000
Customer average payback < 4 months

THE ENEJI PWOP PRODUCT LINE



"KOUNYEA AK YON LIMYE TIPOWA, SE FASIL KOU DLO!"

Eneji Pwop

Ak Eneji Pwop klere Ayiti se plop plop!

EKONOMIZE PLUS KE 7.600g CHAK ANE SOU DEPARAN KEWOZEN

EARTHSPARK MICROGRID DEVELOPMENT

- 3 development steps
 - Step 1 (since Nov. 20th 2012)
 - 14 pioneer customers
 - Step 2 (since October 13th, 2013)
 - 50 households + local business/institutional clients
 - custom-made smart metering system
 - Step 3 (July 1st 2014): **the grid target**
 - > 400 A,B,C customers
 - hybrid solar-diesel grid
- Serves as a prototype and a model for other grids
 - Grids in other towns would go directly to step 3

Step 1: Operating from Nov. 20th 2012

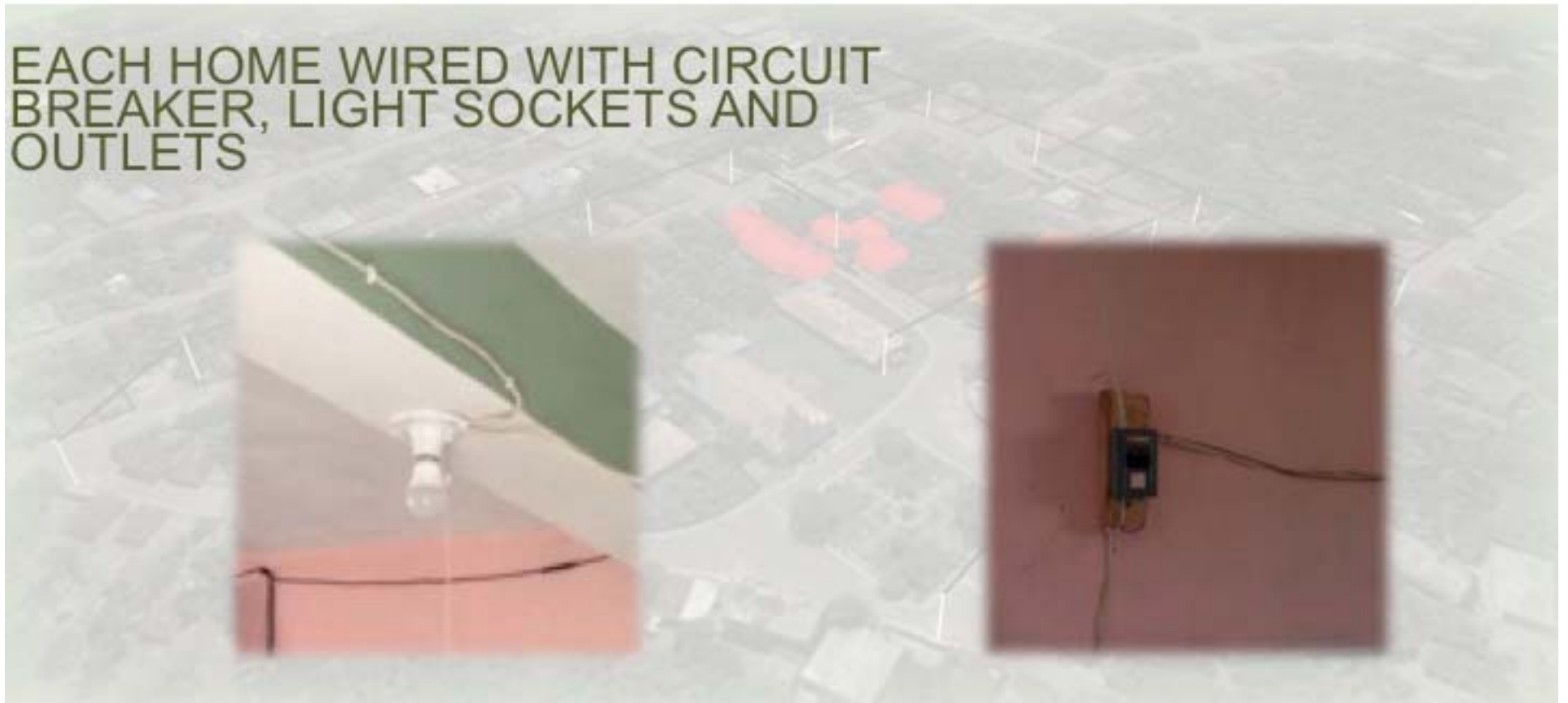


Step 1: Operating from Nov. 20th 2012



Step 1: Operating from Nov. 20th 2012

EACH HOME WIRED WITH CIRCUIT BREAKER, LIGHT SOCKETS AND OUTLETS



Step 2: Operating from October 13th, 2013



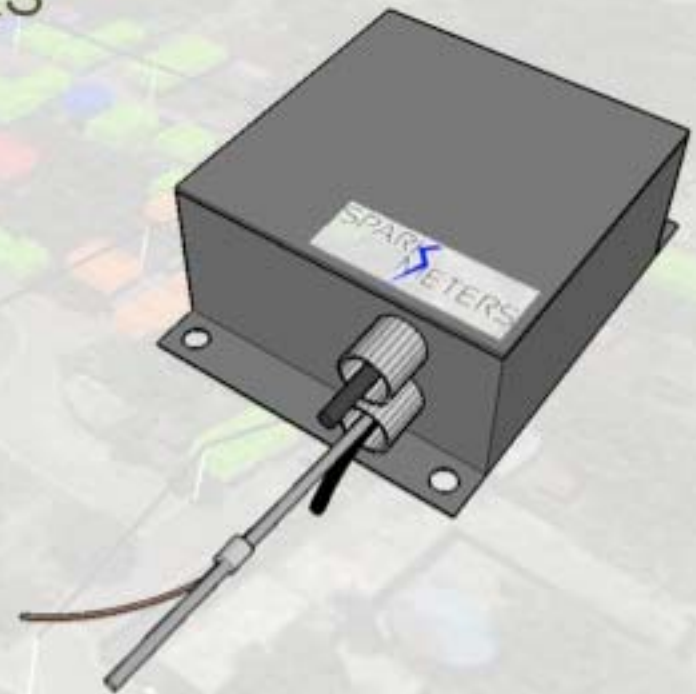
Step 2: Operating from October 13th, 2013

CUSTOM LOW-COST SMART METERS

REMOTE MONITORING & CONTROL

PRE- OR POST-PAYMENT

LOW-COST, LOW-RISK VENDOR
BILLING SYSTEM



Step 3: To be installed by July 1st, 2014



SMART GRID ON MAIN STREET



MICROGRID EXPANSION

- 52 → 400 customers
- Diesel → hybrid solar-diesel



MILL ELECTRIFICATION


- Tap microgrid electricity to improve quality and reduce costs



BREADFRUIT PROCESSING

- Extend shelf life from 3 days to 18 months

VIRTUOUS CYCLE



The grid
unlocks
agricultural
value.

Agricultural
businesses
strengthen
the grid.

An aerial photograph of a town, likely in Haiti, with various buildings highlighted in different colors: red, green, blue, and orange. The town is situated in a valley with hills in the background. The text is overlaid on the left side of the image.

BEYOND AGRICULTURE

ECONOMIC DEVELOPMENT

HEALTH

EDUCATION

EARTHSPARK'S SOCIAL VENTURES

Solar
Retail



Scaling

Market:
Haiti

Solar
Microgrids



Pilot

Market:
Global

Smart
Meters



Prototype

Market:
Global

Milling

Feasibility
Study

Breadfruit

Feasibility
Study

THANK YOU

EarthSpark International

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