



Upscaling Mini-grids for Least Cost and Timely Access to Electricity Services

SREP round table

Haiti

Abuja, Nigeria - December 2017



Country background

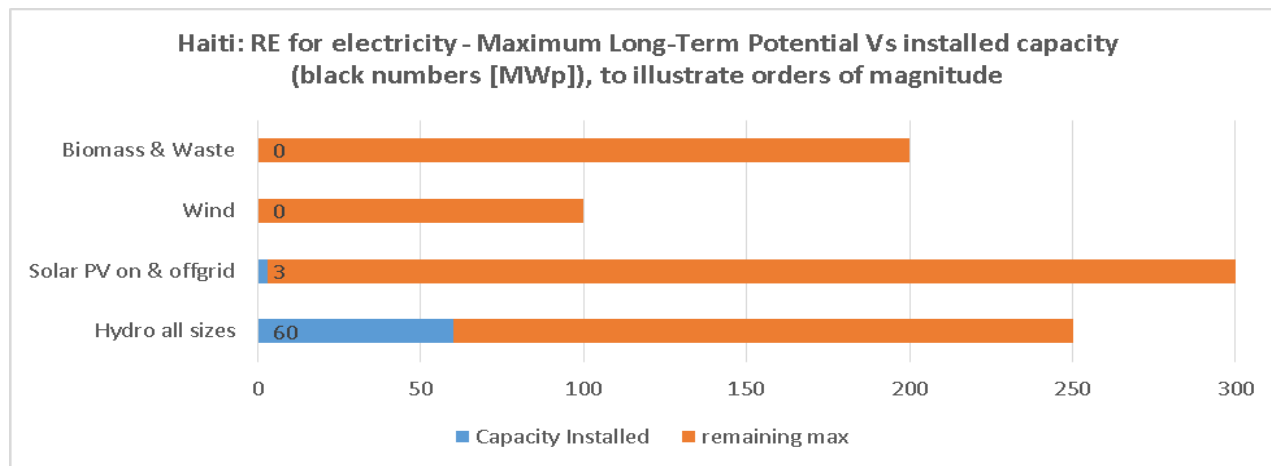
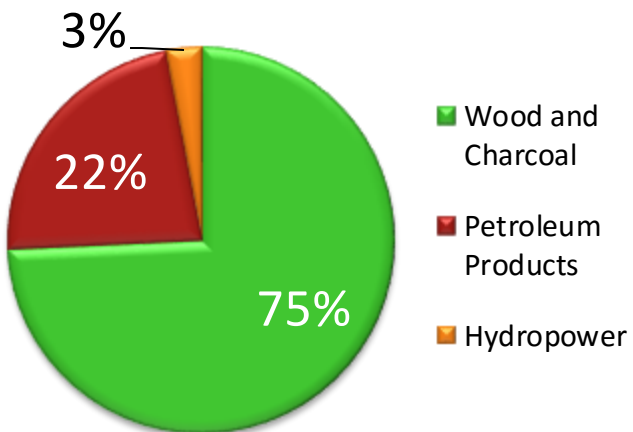
- Caribbean island country (27,750 km²)
- Population: 10.9 million
- GDP per capita: US\$ 846 (2014)
- Widening poverty disparities between urban and rural areas
- **Electrification rate of 30% (5% in rural areas)**
- Intensive use of fuelwood and charcoal
- High dependence on fossil fuel-based electricity generation
- Aging and fragile infrastructure
- Several isolated grids and mini-grids
- High technical and commercial losses
- Institutional, legal and regulatory framework limitations
- Economic and financial constraints
- Capacity and information constraints
- 5th Country most vulnerable to climate related disasters / Seismic risk





Country background

Energy access is very low while Haiti has an excellent but largely untapped RE potential (hydro, wind, solar, and biomass)



Source: [Plan d'investissement SREP, 2015](#)





Project outline

Project Development Objective

- Expand and improve the electricity services for Haitian households, businesses and institutions.
- Catalyze RE development and build local capacity in RE in order to fill the electricity demand gap reliably and cost-effectively— and to sustainably transform the country's oil-dependent energy mix.

Results

- **760,000 people with new or improved electricity access (100,000 on-grid, 60,000 mini-grids, 600,000 off-grid)**
- **8,000 enterprises with new or improved electricity access**
- **20MWp of renewable energy**
- **\$60 million private financing leveraged**

Overarching Goal

Universal access to sustainable energy in Haiti

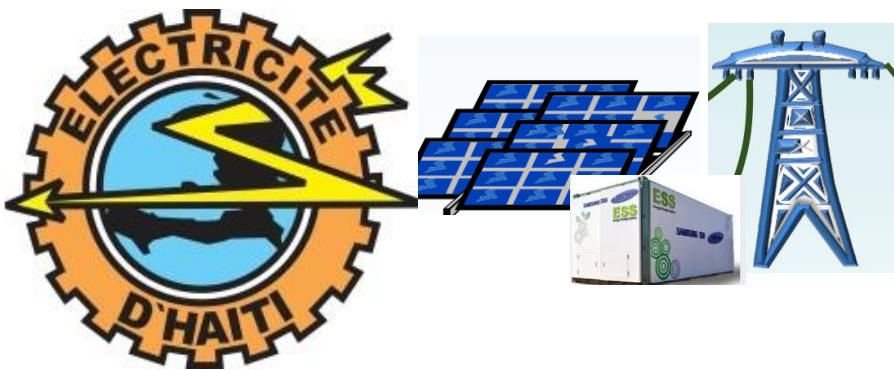


Project outline

Component 1

To scale up on-grid RE investments in Haiti

SREP: US\$10.5 million



Component 2

To extend access through a wide range of off-grid electrification options

SREP: US\$9.12 million



Capacity building and technical assistance to the Energy Cell, EDH, MEF and other key stakeholders for the design, implementation and monitoring of the demonstration projects

Broader capacity building on RE (Government, universities, local technicians...)



Project Outline

Off-Grid Energy Fund - OGEF

- The Clean Technology Fund (CTF) and SREP have allocated \$19 million to develop the Haitian off grid energy sector
- Create the Off-Grid Energy Fund (OGEF)
 - \$12 million of investment capital
 - \$3 million available for grants
 - \$2.5 million to pay fees
 - \$1.5 million for Technical Assistance
- Run by FDI and a competitively selected Fund Manager
- Consortium of a local financial intermediary (local know how) and international fund manager with experience with similar investments globally (knowledge transfer)

Flexible design to be able to serve different market segments:

- Small and large companies;
- Local and international ;
- Existing and new;
- Lanterns,
- DESCOs with solar kits/home systems, Micro-grids

Several financing instruments:

CTF: Working capital for solar lantern distributors

CTF: Equity and loans to allow companies to grow

SREP: limited results based grants for the start-up companies



Status

- Projects approved by SREP, CTF and World Bank (October 2017)
- Legal Agreements signed by Government of Haiti and World Bank (November 2017)
- Working towards projects effectiveness (To be finalized by March 2018)



Issues

- i. Ensure appropriation of the project at high level
- ii. Impact of public utility – and sole off taker - financial situation on project
- iii. Missing or inadequate regulatory framework for grid-connected and off- grid renewables
- iv. Potential technical and financial risks inherent to pioneering projects
- v. Capacity constraints in RE and energy access



Questions on moving forward

- What complementary financing opportunities, for on-grid RE investment under the project and beyond, are available and how to access them?
- What are approaches and methodologies to quickly build capacity of team who will be in charge of SREP project implementation? And how to scale-up this capacity along with RE market development?
- How to proactively remove barriers to implementation of the SREP project ?
- How to ensure constant support from high level decision makers?