

GOVERNMENT OF HAITI SREP-HAITI INVESTMENT PLAN

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Scaling-Up Renewable Energy Program (SREP) Sub-Committee Meeting

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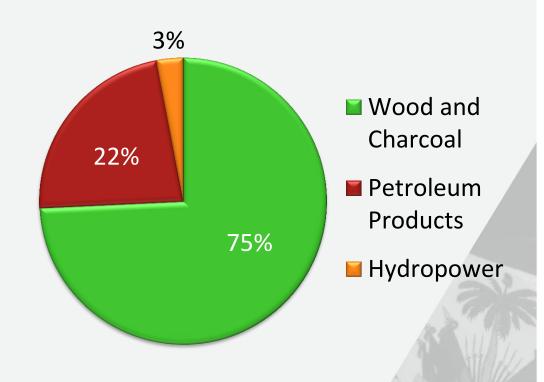
Country Context



- Population: 10.9 million
- GDP per capita: US\$ 846 (2014)
- Widening poverty disparities between urban and rural areas
- Economic development repeatedly been interrupted by external shocks (food and fuel price fluctuations, natural disasters, and etc.)
- Government's goal of becoming an emerging economy within the next decade

Energy sector – Challenges and Constraints

- 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
- High technical and commercial losses
- Institutional, legal and regulatory framework limitations
- Economic and financial constraints
- Capacity and information constraints



Overview of the Electricity Sector

- Électricité d'Haïti, EDH, (Electricity of Haiti), national, government-owned utility, main provider of electricity services
- Installed generation capacity of 320 MW, 176 MW available for an estimated peak load demand of more than 500 MW,
- One main interconnected grid and 11 isolated grids, serving about 250,000 "active" customers
- Government's approach to initiate Power sector reform and to improve EDH's financial performance
 - Reduce EDH losses (WB and IDB support)
 - Increase availability and reduce costs of power supply
 - Prepare the ground for broader legal, institutional, and regulatory

SREP Haiti: Opportunity and Description

Energy access is very low

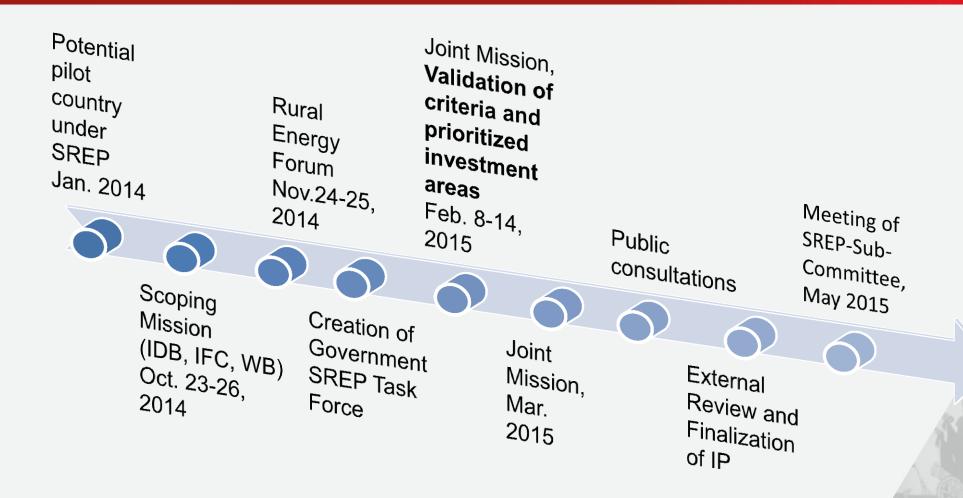
while Haiti has an excellent but largely untapped RE potential (hydro, wind, solar, and biomass)

Opportunity: Guide energy sector development toward a cleaner, cheaper, and more sustainable path

SREP objective: Initiate a transformation from the underdeveloped, unreliable, and expensive fossil fuel—based electricity generation mix to a modern and sustainable energy system relying on diverse sources of power.

Support recent government efforts to address the widening energy needs by improving the quality of electricity services in cities and expanding access to basic energy services in rural areas.

IP Development Process



IP elaboration spearheaded by a diverse Governmental TF led by MTPTC with support from MDBs operating in Haiti

Consultation Process

SREP IP: product of a comprehensive participatory process led by the Government

Stakeholders	Contribution/Outcomes	How/When		
Key governmental, private, and nongovernmental organization (NGO)	Key information for the design of the off-grid electrification component	Haiti Rural Energy Forum, November 24 and 25, 2014		
Development partners, NGOs, private sector	Inputs and comments on the proposed investments Key information on current RE projects	Technical Missions (Oct 2014, Feb 2015 and March 2015)		
Academia, civil society and private sector	Identification of training needs Strong support to a crosscutting component on capacity-building	SREP consultative workshops (Feb 2015)		
End-users	Assessment of beneficiaries awareness Identification of opportunities and challenges	Field missions (Feb 2015)		
National stakeholders	Positive feedbacks on the IP Recommendations to be considered during project design Clarification on key elements	Government website from March 30 to April 10, 2015		

Prioritization Process

Two-Fold strategy 5 step approach Comprehensive sector wide analysis and ranking of all possible RE investments

Analysis of local examples of private business models

Identification of 12
Haiti-specific
potential business
models for all RE
market segments

models for economic and financial feasibility, and cost-effectiveness

Prioritization of the RE investments by the SREP TF in consultation with stakeholders

Ranking of the topscored models and prioritization by TF and stakeholders



Introduction of a crosscutting component for building capacity and improving the enabling environment

SREP component	Priority		
1. RE for PaP metropolitan area	High		
2. RE-for Port-de-Paix remote grid	Medium/High		
3. Off-grid electricity for productive, social, and household uses	High		
4. Rehabilitation of small hydro plants	Medium/High		
5. Building enabling environment, capacities and skills for RE scale-up	High		

SREP Haiti: Design & Financing Plan

SREP Component	SREI	P Fund	ding	Co	Publio-finan			rivate eraging	Total Leveraging	
	WB	IFC	Total SREP	WB-	WB- CTF	Other public	IFC	Other Private	Public + Private	
1. RE for the PaP metropolitan area	8-10	0-2	10	6				16	22	Urban On grid
2. RE-based expansion of Port-de-Paix remote grid	2-4		2-4	10				2	12	Rural On grid
3. Off-grid electricity for productive, social, and household uses	8-9	7-9	15-17	8	11.5		15	60	94.5	Rural+Urban Off grid
4. Rehabilitation of small hydro plants			0	4		14		TBD	18	Rural On grid
5. Building an enabling environment, capacities, and skills for RE scale-up	1	_	1	2.5	0.5				3	Crosscutting
Total	21-23	7-9	30	30.5	12	14	15	78	149.5	

Expected Outcomes

- 200,000 newly electrified households, businesses, and other institutions (1 million residents)
- 10 MWp off-grid and 10-20 MWp on-grid additional RE capacity
- Regulatory instruments developed for RE scale-up phase
- Increased government and private sector experience and capacity to develop and operate RE projects in Haiti
- Increased hands-on experience and capacity of university graduates specializing in RE
- A pool of technicians in rural areas
- Displacement of diesel and kerosene to reduces GHG emissions and local pollution

SREP Haiti: Implementation / Packaging

Implementation of the SREP components to be coordinated by the Energy Cell of MTPTC with support from EDH, BME and Local Universities

SREP Components	WB projects	IFC projects	
1. RE for metropolitan area	RE for the metropolitan area projects	(Advisory Facilities may be provided, tbd)	
2. RE for the Port-de-Paix remote grid			
3. Off-gid electricity for household , productive and social uses	RE and access for all project	Off grid electricity for household, productive and social uses	
5. Building enabling framework, capacities and skills for RE scale-up			
4. Rehabilitation of small hydro	Not yet included in a project		

MDB's current work and support to RE is in perfect complementarity with SREP

SREP: supporting sustainable development of Haiti

The government recognizes the tight link between access to modern energy and development, which drives its modern-energy effort

	 Leveraging of the promising private interest in RE in both off-grid and on-grid markets.
Private sector strengthening	 Reinforcement of Private interests and current initiatives in RE through Haiti's first Renewable Energy Association.
	 Strengthening cooperation between public and private sector through public-private partnership approaches
Skills and knowledge	Building hands-on experience of renewable energy specialists, graduates and technicians to support a sustainable long-term renewable energy scale-up
	Women and children direct and major beneficiaries, gaining access to cleaner energy services and lower costs of accessing better energy services.
Gender equity	 Creating opportunities for women as entrepreneurs building on successful examples in existing off-grid projects
	 SREP capacity-building project will specifically target women to help them take advantage of the new opportunities.



Thank you!

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