

**INTEGRATED SAFEGUARDS DATA SHEET  
APPRAISAL STAGE**

**Report No.: ISDSA18127**

**Date ISDS Prepared/Updated:** 28-Apr-2016

**Date ISDS Approved/Disclosed:** 06-Nov-2015

**I. BASIC INFORMATION**

**1. Basic Project Data**

<b>Country:</b>	Haiti	<b>Project ID:</b>	P154351
<b>Project Name:</b>	Haiti Modern Energy Services For All (P154351)		
<b>Task Team Leader(s):</b>	Frederic Verdol, Dana Rysankova		
<b>Estimated Appraisal Date:</b>	28-Sep-2015	<b>Estimated Board Date:</b>	24-Jun-2016
<b>Managing Unit:</b>	GEE04	<b>Lending Instrument:</b>	Investment Project Financing
<b>Sector(s):</b>	Other Renewable Energy (75%), Transmission and Distribution of Electricity (10%), Energy efficiency in Heat and Power (10%), General energy sector (5%)		
<b>Theme(s):</b>	Rural services and infrastructure (90%), Climate change (10%)		
<b>Is this project processed under OP 8.50 (Emergency Recovery) or OP 8.00 (Rapid Response to Crises and Emergencies)?</b>			No
<b>Financing (In USD Million)</b>			
Total Project Cost:	16.00	Total Bank Financing:	0.00
Financing Gap:	0.00		
<b>Financing Source</b>			<b>Amount</b>
Borrower			0.00
Clean Technology Fund			16.00
Total			16.00
<b>Environmental Category:</b>	F - Financial Intermediary Assessment		
<b>Is this a Repeater project?</b>	No		

**2. Project Development Objective(s)**

The Project Development Objective (PDO) is to accelerate private sector-driven, renewable energy-based off-grid electrification in rural and peri-urban areas of Haiti.

**3. Project Description**

This objective will be achieved primarily through assisting the Government with the creation of an

enabling regulatory framework; and providing funding and market development activities for commercially viable off-grid electrification investments with a potential for replicability and scale-up.

Renewable energy-based off-grid electricity services will comprise a variety of technologies and business models, including individual systems, such as solar lanterns and solar home systems, and village-based systems, such as mini- and micro-grids, powered by renewable energy or hybrid sources (renewables with a diesel back-up and/or battery storage). Private sector is understood to comprise also NGOs and cooperatives.

The project will have the three following components as summarized below and detailed further in Annex 2:

- i. Enabling environment and program oversight
- ii. Off-grid Electricity Fund (OGEF)
- iii. Fund management, pipeline development and technical support

Component 1: Enabling environment and program oversight (US\$1.5 million) – implemented by the Energy Cell of the Ministry of Public Works, Transportation and Communications (MTPTC)

To achieve the desired off-grid electrification acceleration, it is essential to improve the business environment. While minimum conditions for operating off-grid business in Haiti exist today, as demonstrated by the vibrant (yet low quality) solar lantern market and emerging innovative business models, their scale-up is constrained by the early market inefficiencies. Component 1 will include TA activities related to improving fiscal and regulatory environment, setting quality standards and promoting energy efficient solutions, improving consumer awareness of RE technologies, promoting gender-sensitive approaches, strengthening capacities and carrying out knowledge exchanges. It will also support the Energy Cell of MTPTC in its OGEF oversight functions.

Component 2: Access to finance facility (US\$12 million) – implemented by the competitively selected Fund Manager

This component will establish a flexible Off-grid Electricity Fund (OGEF), consisting of equity, debt and results-based financing modalities responding to different needs of the off-grid energy enterprises, serving different consumer segments. OGEF will be structured according to the following three business lines:

- Working capital and results-based grants for premium quality solar lanterns. Experience from Haiti as well as other countries shows that local distributors (mostly SMEs or NGOs) face problems with access to short-term working capital, which would allow them to (i) import quality products at greater quantities and (ii) provide better financing terms to their retailers and/or final users. Access to working capital would therefore enable a faster market penetration for solar lanterns/solar kits. In addition, this component will provide a time-based limited support in terms of results-based financing (RBF) for premium quality (Lighting Global certified or equivalent) products. This will be a limited and time-bound “pump priming” support aimed at further expanding the share of high quality off-grid products in this crucial stage of market transformation in Haiti.
- Equity and start-up results-based financing for DESCOs and village grids. The initial market analysis demonstrates that the Haitian market could support 3-4 DESCO-type businesses, which provide energy services to households, businesses with individual solar kits/home systems, using pre-paid pay-as-you-go meters (see description in Box A1.3, Annex 1). Based on the historic

development of DESCOS and smart micro-grids in other countries, early stage equity and grants will be needed to launch these businesses.

- Medium-term debt for DESCOS and village grids. While equity/grant combination is usually needed to start a new off-grid venture, the expansion of business will require debt financing, ideally in the local currency, 3-6 years tenors, which will allow companies to pre-finance equipment and recover investment through fees/tariffs over time. As debt financing will likely be the main source of finance of companies in the expansion phase, this business line will also start creating evidence of viable business opportunities for local commercial banks, which should become the main funder of these companies after the closure of the proposed OGEF fund.

Component 3: Fund management, pipeline development and technical support (US\$2.5 million) – implemented by the competitively selected Fund Manager

This component will cover Fund Manager fees (the fee will be determined through the bidding process). In addition, the component will provide funding for the market development activities; monitoring, verification and evaluation; and provision of technical support to the beneficiaries. Market development activities will focus on enhancing the quantity and quality of potential investments presented to the OGEF fund and increasing the chances of success of businesses that have received an investments.

#### **4. Project location and salient physical characteristics relevant to the safeguard analysis (if known)**

The project location is not known as the sub-project would be fully demand-driven, financed through a financial intermediary. The project will not have any geographic targeting. All areas not connected to the existing EDH grid will be eligible. Therefore the project will have a largely rural and peri-urban distribution. All sub-projects developed on Haitian territory fulfilling eligibility criteria will be eligible for financing.

#### **5. Environmental and Social Safeguards Specialists**

Asli Gurkan (GSU04)

Nicolas Kotschoubey (GEN04)

<b>6. Safeguard Policies</b>	<b>Triggered?</b>	<b>Explanation (Optional)</b>
Environmental Assessment OP/BP 4.01	Yes	<p>The Project is expected to have a positive social impact on the 500,000 direct beneficiaries of the Project. However, potential negative impacts from the Project relate to health and safety during construction, installation and operation of home systems and micro grids; production of waste in the form of batteries, possibly on a large scale; environmental, social, health and safety liabilities associated with retrofitting existing micro grids; impacts on soil, vegetation and/or biodiversity when installing infrastructure (solar panels, power transmission lines, biomass digesters/furnaces, wind turbines, micro-hydro run-of-river/turbines, etc.).</p> <p>Because a financial intermediary will implement the project, and because the size and location of individual</p>

		<p>subprojects are not known, a “framework” approach was adopted. The responsibility for project implementation and E&amp;S management will be deferred to a financial intermediary (the Fund Manager). Therefore the project is categorized as ‘FI’. The Cellule Energie prepared an “E&amp;S Procedure”, so called in order to be integrated seamlessly into the overall subproject approval procedure (equivalent to an Environmental and Social Management Framework – ESMF). It includes all potential risks and impacts, e.g. safety risks during installation, adequate disposal of used batteries and environmental impacts during installation and operation, and mitigation activities required in each case. The E&amp;S Procedure was consulted on in Port-au Prince and in the Artibonite region (La Chapelle) during September 9 and 10, 2015. The document was published on the Ministry of Public Work’s (MTPTC) and the World Bank’s website on October 9 and 26, 2015, respectively.</p> <p>The FI will need to submit all sub-projects to the Bank’s no-objection in the first two years of project implementation. Following the first two years, only more complex projects (mini-grids and beyond) will require the Bank’s approval.</p>
Natural Habitats OP/BP 4.04	No	No sub projects affecting NHs will be eligible to be funded under the Project.
Forests OP/BP 4.36	No	No sub projects affecting forests will be eligible to be funded under the Project.
Pest Management OP 4.09	No	No sub project utilizing herbicide or other similar chemicals will be eligible to be funded under the project.
Physical Cultural Resources OP/BP 4.11	No	No subprojects affecting archeological, paleontological, historical, religious or other area of unique natural value as defined under the policy will be eligible to be funded under the Project. However, the E&S Procedure will include chance finds procedures as part of OP 4.01.
Indigenous Peoples OP/BP 4.10	No	There are no indigenous people as defined under OP 4.10 in the project area.
Involuntary Resettlement OP/BP 4.12	Yes	It is possible that the project activities may lead to resettlement (particularly squatters), land acquisition as well as loss of economic livelihood under Component 2 – Off-grid Electricity Fund. OP 4.12- Involuntary Resettlement- is triggered. Activities that may result in land acquisition and resettlement include the support of commercial investments in village grids where the business model is based on the municipal PPP and where the Government would subsidize the distribution

		<p>infrastructure and the private sector would be granted to operate grids as concessions. Because the sub-projects or locations are currently unknown, a Resettlement Policy Framework (RPF), laying out the overall guidelines, was prepared. The consultations on the RPF took place on September 9-10, 2015 and the document was disclosed on the World Bank's and government's website on October 9, 2015. Special attention will be given to the eligibility of potentially affected persons to ensure that the rights of those without formal legal rights to land are recognized in the RPF and subsequent RAPs, per OP 4.12.</p> <p>98. A financial intermediary (Fund Manager) will be responsible for site-specific screening of sub-projects for social impacts, and monitoring Resettlement Action Plans (RAPs) as needed. The RAP preparation and implementation (including compensation) will be the responsibility of private companies that are implementing the sub-projects. The Fund Manager and the implementing companies of sub-projects will be provided with support and training during the course of the project to ensure adequate social impact monitoring.</p> <p>99. Beyond resettlement aspects, social impact screening (a checklist) will cover labor safety and standards, community health and safety issues, and potential violence and security risks in the proposed site. The FI will need to submit all sub-projects to the Bank's no-objection in the first two years of project implementation. Following the first two years, only more complex projects (mini-grids and beyond) will require the Bank's approval.</p>
Safety of Dams OP/BP 4.37	No	The project will not support any construction or rehabilitation of dams.
Projects on International Waterways OP/BP 7.50	No	N/A
Projects in Disputed Areas OP/BP 7.60	No	N/A

## II. Key Safeguard Policy Issues and Their Management

### A. Summary of Key Safeguard Issues

<p><b>1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:</b></p>
<p>Potential land acquisition, resettlement (especially squatters), loss of economic livelihood, potential safety and security impacts are possible.</p>
<p>Environmental impacts include production of waste in the form of batteries, possibly on a large scale; environmental, social, health and safety liabilities associated with retrofitting existing micro</p>

grids; impacts on soil, vegetation and/or biodiversity when installing infrastructure (solar panels, power transmission lines, biomass digesters/furnaces, wind turbines, run-of-river micro-hydro plants, etc.)
<p><b>2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:</b></p>
<p>One group that maybe adversely affected are those who charge phones for community members for a fee. When people have access to their own systems, such individuals may run out of business. ESMF includes some mitigation measures targeting this group.</p> <p>Indirect and long-term effects of the project include indiscriminate dumping of batteries, some of which could be toxic (containing lead). However, increased use of solar power would reduce use of kerosene, candles and disposable batteries.</p>
<p><b>3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.</b></p>
<p>Different alternatives in project setup were considered; however subprojects will be subject to market demand and as such no alternatives were proposed.</p>
<p><b>4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described.</b></p>
<p>The Borrower hired a consultant to assess and address safeguards issues through an E&amp;S Procedure (equivalent of ESMF). The E&amp;S Procedure includes guidelines for the production of specific EIAs in the case of subprojects with significant impacts e.g., solar panel arrays, biomass, wind turbines, micro-hydro, etc. These EIAs will be subject to review and approval by the Bank, and will address, as needed, environmental, social, health and safety impacts.</p> <p>To manage used batteries, which will become obsolete in the next 5-10 years, the solution adopted by the Borrower was to commit to the following:</p> <p>1) Include in the ESMF:</p> <ul style="list-style-type: none"> <li>• Promotion of low toxicity (Li-ion) batteries;</li> <li>• DESCOs will propose systems to collect used batteries as part of their business plan;</li> </ul> <p>2) In the meantime, the MTPTC will commission a study that will cover (i) evaluation of risks posed by batteries produced under the project; (ii) evaluation of options for disposal and (iii) possible private sector solutions to recycling / disposal of batteries. MTPTC will solicit financing to carry out the recommendations of the study once it is concluded.</p> <p>This is in keeping with the World Bank Group/IFC's Environmental Social Health and Safety (ESHS) Guidelines, which state that: In the absence of qualified commercial or government-owned waste disposal operators (taking into consideration proximity and transportation requirements), project sponsors should consider (a) Installing on-site waste treatment or recycling processes; or (b) As a final option, constructing facilities that will provide for the environmentally sound long-term storage of wastes on-site [...] or at an alternative appropriate location up until external commercial options become available.</p> <p>Furthermore, the Energy Cell and MTPTC have indicated that they are favorable to allocate land for the disposal/storage of used Li-ion batteries.</p>

Finally, the FI will have funds provided by the project to hire specialist(s) in charge of social/environmental safeguards.
<b>5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.</b>
Entrepreneurs, households, businesses, Energy cell, Ministry of Public works (MTPTC). Consultations were held in Port-au-Prince targeting entrepreneurs and government agencies and in the Artibonite Department targeting households and small businesses. During consultations, special attention was given to understanding the gender-differentiated impacts of off-grid energy options.

### **B. Disclosure Requirements**

<b>Environmental Assessment/Audit/Management Plan/Other</b>	
Date of receipt by the Bank	08-Oct-2015
Date of submission to InfoShop	09-Oct-2015
For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors	
"In country" Disclosure	
Haiti	09-Oct-2015
<i>Comments:</i> Procedure E&S and RPF	
<b>Resettlement Action Plan/Framework/Policy Process</b>	
Date of receipt by the Bank	08-Oct-2015
Date of submission to InfoShop	09-Oct-2015
"In country" Disclosure	
Haiti	09-Oct-2015
<i>Comments:</i>	
<b>If the project triggers the Pest Management and/or Physical Cultural Resources policies, the respective issues are to be addressed and disclosed as part of the Environmental Assessment/Audit/or EMP.</b>	
<b>If in-country disclosure of any of the above documents is not expected, please explain why:</b>	

### **C. Compliance Monitoring Indicators at the Corporate Level**

<b>OP/BP/GP 4.01 - Environment Assessment</b>	
Does the project require a stand-alone EA (including EMP) report?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
If yes, then did the Regional Environment Unit or Practice Manager (PM) review and approve the EA report?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
Are the cost and the accountabilities for the EMP incorporated in the credit/loan?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
<b>OP/BP 4.12 - Involuntary Resettlement</b>	
Has a resettlement plan/abbreviated plan/policy framework/process framework (as appropriate) been prepared?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
If yes, then did the Regional unit responsible for safeguards or Practice Manager review the plan?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]

Is physical displacement/relocation expected?	Yes [ <input type="checkbox"/> ] No [ <input checked="" type="checkbox"/> ] TBD [ <input type="checkbox"/> ]
Provided estimated number of people to be affected	
Is economic displacement expected? (loss of assets or access to assets that leads to loss of income sources or other means of livelihoods)	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] TBD [ <input type="checkbox"/> ]
20 Provided estimated number of people to be affected	
<b>The World Bank Policy on Disclosure of Information</b>	
Have relevant safeguard policies documents been sent to the World Bank's Infoshop?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
<b>All Safeguard Policies</b>	
Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard policies?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
Have costs related to safeguard policy measures been included in the project cost?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]

### III. APPROVALS

Task Team Leader(s):	Name: Frederic Verdol, Dana Rysankova	
<b>Approved By</b>		
Practice Manager/ Manager:	Name: Antonio Alexandre Rodrigues Barbalho (PMGR)	Date: 30-Apr-2016