

**INTEGRATED SAFEGUARDS DATA SHEET  
APPRAISAL STAGE**

**Report No.: ISDSA3330**

**Date ISDS Prepared/Updated:** 09-Apr-2013

**Date ISDS Approved/Disclosed:** 11-Apr-2013

**I. BASIC INFORMATION**

**1. Basic Project Data**

<b>Country:</b>	Liberia	<b>Project ID:</b>	P133445
<b>Project Name:</b>	Liberia Accelerated Electricity Expansion Project (LACEEP) (P133445)		
<b>Task Team Leader:</b>	Clemencia Torres De Mastl		
<b>Estimated Appraisal Date:</b>	08-Apr-2013	<b>Estimated Board Date:</b>	30-May-2013
<b>Managing Unit:</b>	AFTG2	<b>Lending Instrument:</b>	Specific Investment Loan
<b>Sector(s):</b>	Transmission and Distribution of Electricity (50%), General energy sector (25%), Thermal Power Generation (15%), Hydropower (10%)		
<b>Theme(s):</b>	Corporate governance (30%), City-wide Infrastructure and Service Delivery (35%), Infrastructure services for private sector development (20%), Other Private Sector Development (15%)		
<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:	35.00	Total Bank Financing:	35.00
Total Cofinancing:		Financing Gap:	0.00
<b>Financing Source</b>			<b>Amount</b>
BORROWER/RECIPIENT			0.00
International Development Association (IDA)			35.00
Total			35.00
<b>Environmental Category:</b>	B - Partial Assessment		
<b>Is this a Repeater project?</b>	No		

**2. Project Objectives**

The project development objectives are to increase access to electricity and strengthen institutional capacity in the electricity sector.

### 3. Project Description

Key Challenges: To support the GoL ambitious goals for an accelerated expansion of electricity services in Liberia until 2030. The proposed project focuses on three of the most pressing issues that need to be addressed for the electricity sector in Liberia to be able to embark on a sustainable development path. The first aspect is the expansion of the transmission and distribution grid that today is limited in Monrovia and practically nonexistent in the rest of the country, in order to provide access to electricity services. The second issue is the importance of creating the conditions that will facilitate the shift from diesel to HFO-based thermal generation for the country to effectively benefit from the price differential of the two fuels on the international market. Finally the third aspect is the strengthening of the institutional capacity within the government to lead the development of the electricity sector.

The proposed project consists of the following three components:

Component 1: Extension of electricity transmission and distribution systems (estimated cost: US\$ 19.72 million).

This sub-component will provide access to electricity to about 86,209 new users located not only in Monrovia but also outside of the capital, along the corridor to the town of Kakata. The new users will represent a diverse mix of residential users (from low to higher income), small business, institutional consumers and a few agro industrial customers. The objective of this component is to continue the expansion of services to the population in general, while reaching out in particular in Monrovia to 40 to 50 business and institutional customers with a demand larger than this of residential users. Broadening the base of customers will contribute to improve LEC's financial performance while achieving the goal of expanding services to the population.

The scope of work under this component is based on the short-term investment program defined by MLME and LEC that aims at extending electricity services both in Monrovia and to three economic corridors outside the capital: Kakata, Bomen Hill and the airport. In particular, the proposed project will finance the transmission and distribution investments for the corridor of Monrovia-Kakata and the investments for extending the services in Monrovia at the distribution level. The component is divided into three sub-components, according to the implementation arrangement needed for their implementation as follows:

- Sub-component 1-A. Extension of transmission and distribution system to Kakata. The sub-component will finance (i) the construction of a 66 kV sub-transmission line between the Paynesville substation in Monrovia and the town of Kakata; (ii) the construction of a 66/22 kV substation in Kakata; (iii) the construction of both 22 kV and low voltage distribution lines, including the connections to new consumers along the Monrovia-Kakata corridor and in the town of Kakata.
- Sub-component 1-B. Extension of the distribution system in Monrovia. This sub-component will finance the extension of electricity services within the service area of the management contractor. This will include the infrastructure for distribution lines from Paynesville and its surrounding in about nine communities, as well as the connection of 40 to 50 large customers in various parts of the city.
- Sub-component 1-C. Preparation and implementation of the component for the extension of transmission and distribution systems. This includes detailed design, safeguards instruments and

other preparatory consultancies for the transmission and distribution investments. This also includes the hiring of consultants with financial management and procurement expertise to strengthen the Project Implementation in LEC and the possibility of hiring additional experts if need arises after the management contractor has departed in 2016.

Component 2. Construction of HFO facilities for off-loading, transport and storage, of (HFO) and support for optimization of HFO procurement (estimated cost: US\$10.56 million)

This component supports Government strategy of shifting generation capacity from diesel to HFO-based thermal generation to reduce the cost of electricity. Increasing generation capacity with thermal plants running on HFO to expand services and reduce the cost of electricity is only possible however, if there is a reliable and sufficient supply of HFO at prices significantly cheaper than diesel. There are both physical and commercial aspects in the optimization of the supply of fuel. This component supports both aspects of the process.

On the physical side, the component finances the construction of facilities to offload, store and pump HFO from sea tankers with capacity in the range 30,000 – 40,000 tons, in order to minimize unit price of freight. The HFO will be offload at the BOMC Pier of the China Union concession and will be transported about 1.5 kilometers to a large storage tank in Bushrod Island on LEC's premises. A legal agreement between the GoL and the concessionaire China Union will govern the access and use of the pier facilities and an agreement between the Government and LEC will ensure that the facilities are properly operated and maintained.

On the commercial side, the component provides technical assistance to the GoL to optimize its procurement of fuel in the international markets and define the most adequate fiscal regime for importing and selling HFO used in electricity generation for LEC. In parallel with the support provided under the LACEEP, the first Poverty Reduction Support Credit (PRSC-1), currently under preparation also supports this open, competitive approach to the procurement of HFO and includes a condition to the effect in the Matrix of Policy actions, whereby an open competitive procurement process of HFO used in electricity generation for LEC would be implemented by December 2014 to ensure the lowest CIF cost of the fuel. If completed on time, HFO will be available when the various HFO-based generation plants currently in the pipeline will come into operations.

This component is thus composed of the following activities:

- Sub-component 2-A Construction of HFO transport and storage facilities. This sub-component will support: (i) construction (supply and installation) at the Bong Mining Company site, adjacent to the pier or to the existing storage tank, of a pump station to transport HFO to the storage tanks located at the Bushrod Island site; (ii) construction of a pipeline connecting the Bong Mining Company and the Bushrod island HFO storage tanks; and (iii) construction of a new storage tank at Bushrod Island site, with capacity of approximately 16,200 cubic meters, equivalent to the consumption of generating plants totaling 30 MW at base load during 3 months (180 m<sup>3</sup>/day x 90 days).
- Sub-component 2-B. Detailed design and supervision of HFO Infrastructure investments. This sub component will finance the consultancy services needed to prepare the component, such as the detailed engineering design, preparation of bidding documents, and the contract of the owner's engineer who will supervise construction works.

- Sub-component 2-C Technical assistance to the government for optimizing the procurement of HFO. The project will finance technical assistance to the government to (i) optimize the procurement of HFO in international markets; (ii) define a pricing regime for HFO used in electricity generation and a fiscal regime for HFO imports and sales.

Component 3. Technical Assistance to MLME. Support for the expansion of supply options and for the strengthening of the sector's institutional capacity (estimated cost: US\$ 4.72 million).

This component provides support to MLME in specific areas where the Ministry has a key responsibility, as the entity responsible to lead the development of the electricity sector. It will also support the overall strengthening of MLMEs' institutional capacity. In particular, this component supports the Government's decision to attract private investments into generation as a way of leveraging the large needs for public funds in transmission and distribution. The nature of such specific transaction may include the sale to LEC of surplus electricity generated by large concessionaires or by greenfield plants (independent power producers or IPPs), depending on the best option identified under the LCPDP. In all cases, attracting the private sector into the business of supplying electricity to LEC may require the use of credit and risk mitigation mechanisms. The use of such mitigation mechanism, if needed, could also be an option for the procurement of HFO for electricity generation. This component also provides institutional support to MLME to strengthen its capacity to fulfill its core responsibilities and implement the project. It will include specifically the following activities:

- Sub-component 3-A Technical assistance to attract private investment for electricity generation. Activities under this component will assist MLME in the legal, technical and commercial structuring of the transaction.
- Sub-component 3-B Training and provision of short term expertise and financing of selected studies, including (i) the hiring of different experts such as senior financial management expert and a senior procurement specialist, and (iii) studies needed for the medium-term development of supply options, notably in hydroelectricity.
- Subcomponent 3-C. Cost of managing the project, including the audit. This sub-component will provide the resources needed based on the financial and procurement assessment of MLME to implement the components under its management.

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

The project location is the Greater Monrovia area. The economic corridor included for electrification in this project goes from Monrovia to Kakata. Exact locations of the distribution line routes are not known as of yet, which is why the safeguard instruments are an Environmental and Social Management Framework (ESMF) and a Resettlement Policy Framework (RPF).

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

Liba C. Strengerowski-Feldblyum (AFTN2)

Paivi Koskinen-Lewis (AFTCS)

6. Safeguard Policies	Triggered?	Explanation (Optional)
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Environmental Assessment OP/ BP 4.01	Yes	While the general site of some of the works is known (e.g. Component 2), the scope and types of the works are yet to be finalized. Thus, the proposed project will build on the Environmental and Social Management Framework (ESMF) prepared for the energy sector in the context of the Liberia Electricity System Enhancement Project (LESEP) by the implementing agency LEC. This document contains the provisions necessary to guide the preparation and implementation of activities in the energy sector. The ESMF has been updated to reflect some new LACEEP project details and has been consulted upon and disclosed both in-country and in the World Bank InfoShop prior to appraisal.
Natural Habitats OP/BP 4.04	No	In the immediate project area there are no natural habitats. The project is located in an urban and peri-urban area.
Forests OP/BP 4.36	No	There are no forests in the immediate project area.
Pest Management OP 4.09	No	No pesticides will be used or procured in the project.
Physical Cultural Resources OP/ BP 4.11	Yes	The LACEEP ESMF includes a “chance find procedure” which will be included in all construction contracts. Physical Cultural Resources which might be affected are some graves in the Right-Of-Way. Contractors will be instructed to avoid these graves.
Indigenous Peoples OP/BP 4.10	No	There are no Indigenous Peoples in the project area.
Involuntary Resettlement OP/BP 4.12	Yes	The policy applies to potential investments in the 66 kV sub-transmission grid and the 22 kV and other low voltage networks that are intended to delivery electricity to end-users. Since the process for undertaking a technical design, including location of the network facilities, will be finalized during implementation phase, a Resettlement Policy Framework (RPF) based on the one prepared for LESEP has been updated, consulted upon, and disclosed before appraisal. The RPF contains guidance on preparation of potential Resettlement Action Plans (RAP), which might need to be prepared, consulted upon, disclosed and implemented in the future, as appropriate.

Safety of Dams OP/BP 4.37	No	The project does not include or depend on any dam.
Projects on International Waterways OP/BP 7.50	No	The project does not depend on water from an international waterway.
Projects in Disputed Areas OP/BP 7.60	No	There are no disputed areas in the project area.

## 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 Restructured project. Identify and describe any potential large scale, significant and/or irreversible impacts:</b></p> <p>Under component 1, extension of electricity transmission and distribution systems, the exact locations for new lines and subsequently the exact scope and type of impacts are not known. In component 2, the general site of the works is known, but the scope and types of works have not been finalized. OP 4.01 is thus triggered to cover the environmental impact, related to the installation of the distribution equipment, the fuel supply lines and storage facilities. The environmental impacts are expected to be limited due to the use of existing rights of ways and premises in the urban areas of Monrovia. The proposed project will build on the safeguards instrument prepared previously for the energy sector in the context of the Liberia Electricity System Enhancement Project (LESEP) by the implementing agency LEC, which is the Environmental and Social Management Framework (ESMF). This document contains the provisions necessary to guide the preparation and implementation of activities in the energy sector and it includes a “chance find procedure” to ensure compliance with OP 4.11. This ESMF has been updated to reflect the LACEEP project details and has been consulted upon and disclosed both in-country and in the World Bank InfoShop prior to appraisal. The implementing agencies of the Project, the Ministry of Lands, Mines and Energy (MLME) and the Liberia Electricity Corporation (LEC), will be responsible for the implementation of both the ESMF and the RPF.</p> <p>OP 4.12 is triggered to cover clearance of land for the network right of way (RoW) under component 1, which may require some land acquisition leading to relocation and displacement of households and/or assets. In case any land acquisition or compensation becomes necessary, the costs will be covered by the Borrower. The project will prepare before appraisal a Resettlement Policy Framework (RPF) with guidelines for completion of a Resettlement Action Plan (RAP), as needed, in case any land acquisition, and/or restriction of access to resources should occur. Similarly to the ESMF, the RPF also builds upon the sector-wide RPF previously prepared for Liberia. The updated document will be disclosed both in-country and in the World Bank InfoShop prior to appraisal.</p> <p>Under component 2, sub-component 2-A covers the rehabilitation of HFO transport and storage facilities at the pier in the Port of Monrovia port as well as the construction of new storage tanks on the South side of the pier. There is no land acquisition or restriction of access to resources anticipated at these locations. Similarly, the construction of a small diameter new pipeline of around 1.5 km length that will connect the pier, the new storage tanks and Bushrod Island thermal plant, is not expected to involve any land acquisition or restriction of access to resources as it is within an existing RoW on which there are no settlements. The Bushrod Island thermal plant site is located on the premises of the Liberia Electricity Corporation (LEC) and there is no</p>
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encroachment at this location.

The environmental impacts include anticipated HFO thermal power plant operations, mostly air pollution by NOx and particles. The ESMF includes hazardous wastes management practices during construction and operation and other related measures regarding the management of public/occupational health and safety issues. These might include issues such as potential PCB contamination from existing facilities. An Environmental and Social Impact Assessment (ESIA) and Environmental and Social Management Plans (ESMPs) will be prepared for the project after the application of screening procedures. The ESIA/ESMPs preparation will be guided by the World Bank approved ESMF for the original project. The ESIA/ESMPs will be prepared, reviewed and cleared by the Bank, and disclosed in-country and in the Infoshop within six months of the effectiveness of the project, and before any construction starts.

**2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:**

The project is in environmental category B. It is not anticipated that any serious indirect or long term environmental or social impacts will be caused by the project. The project is expected to bring positive benefits to communities, individuals and businesses. The environmental concerns arising from the possible construction of the transmission networks include minor loss of vegetation cover in the peri-urban areas in the Monrovia vicinity, noise, dust and waste generation as well as occupational/public health and safety issues. When in operation, the distribution line would need to be monitored to evaluate safety, visual intrusion, and problems associated with repair and maintenance etc.

The area around the existing HFO tanks, which will be rehabilitated by the LESEP project that is implemented simultaneously with LACEEP, at Bushrod Island is polluted with HFO. This HFO pollution happened during the civil war due to neglect of the facilities. All the HFO polluted soil will be taken out before the rehabilitation of the tanks can start and will be stored in a concrete confined area or treated to international standards. The exact method of disposal has still to be determined, but the method selected will be in compliance with World Bank Safeguard Policies and Environmental, Health and Safety Guidelines of April 2007. The risks of the existing polluted area and the disposal of HFO polluted soil are local and manageable. The risks of a HFO spill during operation will be small and the HFO spill with local and are related to filling the HFO storage tanks at the port from moored vessels, transport through the HFO pipeline of around 35 cm diameter and 1.5 km length and HFO storage in the rehabilitated tanks in Bushrod Island.

**3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.**

The line routing for the proposed networks has not been finalized. During the feasibility study, alternative routing to minimize environmental and social impacts will be assessed. In particular, the project will ensure that the routing will avoid densely populated areas, especially avoiding areas where institutional structures (e.g. schools, churches and health centers) may be displaced and where graves might be affected (a chance find procedure will be included in all contractor contracts).

**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.**

The implementing agencies of the Project, the Ministry of Lands, Mines and Energy (MLME) and the Liberia Electricity Corporation (LEC), will be responsible for the implementation of both the ESMF and the RPF, in their respective components, that is component 1 for LEC and the other

components for MLME. LEC has started to set up a separate environment and social coordinating team. The LEC has also hired several consultants who have been engaged to prepare RAPs and ESIA's. To ensure smooth implementation of safeguards instruments, the project will provide capacity building similar to the technical assistance programs to LEC that have been set up for similar electricity sector projects in Liberia previously (e.g. LESEP and LESEP II), which are proceeding well.

**5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.**

The project will benefit the communities in and around the Monrovia urban center, including the peri-urban areas in the outskirts of the city as well as Kakata. In addition to households who will greatly benefit from improved electricity access, the other beneficiaries would be small businesses and industries who have expressed demand for more reliable electricity. Government agencies and social infrastructure (schools, health centers, churches) are also expected to benefit from increased energy access. Throughout the updates of the ESMF and RPF, extensive stakeholder consultations, including with community and greater Monrovia urban leaders, have been undertaken by LEC. Key issues raised included information on environmental impacts, how monitoring of environmental impacts would be managed, and possible resettlement issues arising from construction of the HFO pipeline.

**B. Disclosure Requirements**

<b>Environmental Assessment/Audit/Management Plan/Other</b>	
Date of receipt by the Bank	19-Mar-2013
Date of submission to InfoShop	05-Apr-2013
For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors	
"In country" Disclosure	
Liberia	09-Apr-2013
<i>Comments:</i>	
<b>Resettlement Action Plan/Framework/Policy Process</b>	
Date of receipt by the Bank	15-Mar-2013
Date of submission to InfoShop	05-Apr-2013
"In country" Disclosure	
Liberia	09-Apr-2013
<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>	
Are the cost and the accountabilities for the EMP incorporated in the credit/loan?	Yes [ ] No [ ] NA [ ]

<b>OP/BP 4.11 - Physical Cultural Resources</b>	
Does the credit/loan incorporate mechanisms to mitigate the potential adverse impacts on cultural property?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
<b>OP/BP 4.12 - Involuntary Resettlement</b>	
If yes, then did the Regional unit responsible for safeguards or Sector Manager review the plan?	Yes [ <input checked="" type="checkbox"/> ] No [ <input type="checkbox"/> ] NA [ <input type="checkbox"/> ]
<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:	Clemencia Torres De Mastl	
<b>Approved By</b>		
Regional Safeguards Coordinator:	Name:	Date:
Sector Manager:	Name: Meike van Ginneken (SM)	Date: 11-Apr-2013