

# INTEGRATED SAFEGUARDS DATA SHEET

## CONCEPT STAGE

**Report No.: ISDSC4869**

**Date ISDS Prepared/Updated:** 11-Jul-2013

**Date ISDS Approved/Disclosed:** 24-Jul-2013

### I. BASIC INFORMATION

#### A. Basic Project Data

Country:	South Sudan	Project ID:	P145581
Project Name:	Energy Sector Technical Assistance Project (P145581)		
Task Team Leader:	Rahul Kitchlu		
Estimated Appraisal Date:		Estimated Board Date:	15-Jul-2014
Managing Unit:	AFTG1	Lending Instrument:	Technical Assistance Loan
Sector(s):	General energy sector (100%)		
Theme(s):	Infrastructure services for private sector development (50%), Other environment and natural resources management (25%), Other public sector governance (25%)		
Financing (In USD Million)			
Total Project Cost:	4.00	Total Bank Financing:	4.00
Total Cofinancing:		Financing Gap:	0.00
Financing Source			Amount
BORROWER/RECIPIENT			0.00
International Development Association (IDA)			4.00
Total			4.00
Environmental Category:	B - Partial Assessment		
Is this a Repeater project?	No		

#### B. Project Objectives

##### Development Objectives

The project development objective (PDO) of the Energy Sector Technical Assistance Project (ESTAP) is to strengthen the capacity of the GRSS to facilitate the development of its (i) energy sector planning capabilities, (ii) electrical distribution efficiency, and (iii) off-grid electrification programs.

## Beneficiaries

The primary beneficiaries of the ESTAP Project will be the implementing agencies, MOED and SSEC, through the program of technical assistance and capacity building. Indirectly, the energy sector, as a whole, will benefit from better long term planning, increased efficiency, and improved performance. Furthermore, the South Sudanese people will benefit due to improved efficiency and the introduction of off-grid renewable energy solutions.

### C. Project Description

For the GRSS to lay the foundation for the development of the energy sector, it needs to focus on the following four key areas in the coming years: (i) improving sector planning, (ii) building sector capacity, (iii) improving distribution system efficiency, and (iv) initiating off-grid energy access enhancement programs. The ESTAP Project will address all of these four key areas identified as part of the ESSN report development process and the ensuing discussions with the Government. The ESTAP Project will be part of continued World Bank support to improve sector performance, and contribution to growth and sustainable development for the years to come in South Sudan's energy sector.

While the ESTAP Project is proposed to be financed as an IDA Credit, it is also likely to receive support from Bank-executed trust funds and programs, such as: Africa Renewable Energy Access Program - II (AFREA II), Lighting Africa, ACCES, etc. Applications for funding from various Bank-executed trust funds are under review and subject to approval.

The proposed ESTAP Project consists of the following four components:

Component 1: Least Cost Investment Plan (Indicative Cost: \$1.35M): In order to design the electric power generation system of the future in South Sudan, it is important to carry out detailed technical planning - which has not yet been carried out in South Sudan. There have been some specific technical studies conducted by donor organizations (Such as: NRECA Mini Grid Study in 2007, Norfund FRHPP Study in 2009, NBI/NELSAP Hydropower Expansion and Regional Integration Study in 2013, etc.) and the recent Energy Sector Strategy Note (ESSN) by the World Bank. However, a detailed least cost investment plan (LCIP) is needed to develop a framework that could assist the Government to attract financing for infrastructure development as well as effectively coordinate with donor partners.

The LCIP will include an assessment of demand and load forecasting using market and household surveys as well as economic growth and consumption patterns. Associated to this task would be the development of a plan for a generation expansion plan that not only considers the cost and availability of generation resources in South Sudan, but also considers the appropriate plant availability (sufficient reserve margin), reliability (low supply interruption frequency), diversity of the generation mix (risk mitigation), and respect for the environment (renewable energy). Further, a distribution network expansion plan considering appropriate capacity of lines and substation will be developed. The plan would also consider available regional interconnections and describe the long term plans to develop a transmission back-bone in the country. The overall objectives of the LCIP are to kick-start a program for future investment to increase energy access that would contribute to poverty reduction and boost the economic development of the country.

Component 2: Capacity Building Program (Indicative Cost: \$1.35M): A comprehensive capacity

building program will be initiated under ESTAP for improved technical, managerial, and operational skills. This Component will support the development of a comprehensive capacity building program, based on the recently carried out needs assessment report, and will also support the implementation of the program activities. Despite employing a large number of people, skilled manpower base is not available to the sector.

Focused training, based on the recommendations of the recently carried out needs assessment report, will improve the efficiency and capacity of the sector. This would include areas such as planning and design of infrastructure project, project implementation, procurement management, financial management, management tools and systems, and environmental and social safeguards management, etc. As the sector anticipates growth that would increase the size of the national utility in a very short period, it is important to plan for the future when implementing a capacity building program.

As a first IDA operation in the energy sector in South Sudan, this Component will also provide implementation support for the ESTAP Project by providing appropriate expertise to the Project Implementation Unit (PIU). Lessons learned in post-conflict fragile states such as Liberia, have highlighted the need to invest early on in project planning life cycles for the establishment of PIUs that can assist with the planning, design and execution of complex infrastructure projects. With the anticipated growth in the sector and the possible further investments, the support provided to the PIU will not only assist in execution of the ESTAP project but will also aide the long term development of the sector.

Component 3: Distribution Efficiency Improvement Pilot Program (Indicative Cost: \$1.1M): The grid-based electricity situation in South Sudan is characterized by routine power outages and lack of efficiency in the distribution system. Many consumers do not have meters, or have meters that have not been calibrated, cleaned, nor received any form of maintenance in at least ten years. According to SSEC, their outdated equipment causes large system losses estimated to be over 30%, however, this claim remains to be verified as the measurement systems are inadequate. Furthermore, commercial losses due to theft and low bill collection rate (estimated to be around 40-50%) are also high. If left unchecked, the inefficiency will continue to propagate in the grid network.

This Component will finance the development of a program for distribution network efficiency improvement, based on the recommendations of the report on distribution network efficiency improvement program. The Component will also include support for launch of a pilot program for pre-paid energy meters in Juba area. The efficiency program under this Component will support the development of sound principles for operating and maintaining the grid network. The program will also build consumer awareness for theft prevention.

Component 4: Off-Grid Energy Access Pilot Program (Indicative Cost: \$0.7M): While universal electrification is the long term vision of the GRSS, incorporation of off-grid renewable energy solutions for rural electrification is a very viable and cost-effective way of providing modern energy services to remote parts of South Sudan.

This Component will finance an analysis of possible off-grid energy access programs. Following the analysis, a program for off-grid access enhancement will be development. This Component will also support the preparation and launch of pilot projects, based on the recommendation of the analytical studies. Initiatives such as: efficient lighting (Lighting Africa), clean cooking (ACCES), as well as other activities such as mini-grid implementation programs will be supported.

## Project Costs

Total cost of the four Components described above is expected to be approximately US\$ 4.5 million, of which, up to US\$ 4.0 million will likely be financed by IDA as a TA Credit (terms TBD). The remaining amount, US\$ 0.5 million will likely be financed by Bank-executed trust funds and programs (such as: AFREA II/Lighting Africa/ACCES).

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

Project engagement will be national level with respect to putting place policy, systems and procedures. Some pilots will be implemented in the field but are currently unknown.

### **E. Borrowers Institutional Capacity for Safeguard Policies**

The Borrower currently has limited institutional capacity to manage environmental and social safeguards. An important objective of the project is the setting up of country system for environmental social safeguards management in the energy sector to include the organizational structure, policy, and institutional strengthening. The proposed project involves capacity building and technical assistance and no physical work activities are expected that generate adverse and irreversible environmental and social impacts during implementation of the project. However, the project will finance the preparation of a Sectoral Environmental and Social Assessment (SESA) to help the client examine ways in which to strengthen capacity and lay the foundation for a sound environmental and social safeguards management of the country's energy sector.

### **F. Environmental and Social Safeguards Specialists on the Team**

Varalakshmi Vemuru (AFTCS)

Bedilu Amare Reta (AFTA3)

## **II. SAFEGUARD POLICIES THAT MIGHT APPLY**

<b>Safeguard Policies</b>	<b>Triggered?</b>	<b>Explanation (Optional)</b>
Environmental Assessment OP/ BP 4.01	Yes	<p>The proposed project mainly focused on technical support and capacity building. No adverse and irreversible environmental or social impacts are expected to be generated due to the implementation the proposed project. The activities in Component 4 have negligible to minimal environmental and social impacts and may be implemented according to national and local laws and procedures.</p> <p>To strengthen the capacity of the client and lay foundation on the sectoral safeguards management that enables to ensure sound environmental and social safeguards implementation, the client will prepare a SESA and create awareness and intervene in safeguards capacity enhancement activities during implementation of the project. The ToRs for the SESA will be prepared, consulted upon, and disclosed before appraisal.</p>

Natural Habitats OP/BP 4.04	No	The proposed project does not include any activities that would trigger this policy.
Forests OP/BP 4.36	No	No project activities are expected to affect Forest resources and would trigger this policy.
Pest Management OP 4.09	No	
Physical Cultural Resources OP/BP 4.11	No	The proposed project does not involve activities that affect PCR. Therefore this policy is not triggered.
Indigenous Peoples OP/BP 4.10	No	No activities for field level implementation are envisaged under the project that will require community involvement.
Involuntary Resettlement OP/BP 4.12	No	No construction and/or land acquisition is envisaged.
Safety of Dams OP/BP 4.37	No	
Projects on International Waterways OP/BP 7.50	No	
Projects in Disputed Areas OP/BP 7.60	No	

### III. SAFEGUARD PREPARATION PLAN

**A. Tentative target date for preparing the PAD Stage ISDS:** 03-Mar-2014

**B. Time frame for launching and completing the safeguard-related studies that may be needed.**  
**The specific studies and their timing<sup>1</sup> should be specified in the PAD-stage ISDS:**

N/A

### IV. APPROVALS

Task Team Leader:	Name: Rahul Kitchlu	
<b>Approved By:</b>		
Regional Safeguards Coordinator:	Name:	Date:
Sector Manager:	Name: Vladislav Vucetic (SM)	Date: 24-Jul-2013

<sup>1</sup> Reminder: The Bank's Disclosure Policy requires that safeguard-related documents be disclosed before appraisal (i) at the InfoShop and (ii) in country, at publicly accessible locations and in a form and language that are accessible to potentially affected persons.