

**INTEGRATED SAFEGUARDS DATA SHEET
APPRAISAL STAGE**

Report No.: ISDSA1050

Date ISDS Prepared/Updated: 19-Nov-2014

Date ISDS Approved/Disclosed: 20-Nov-2014

I. BASIC INFORMATION

1. Basic Project Data

Country:	South Sudan	Project ID:	P145581
Project Name:	South Sudan Energy Sector Technical Assistance Project (P145581)		
Task Team Leader:	Rahul Kitchlu		
Estimated Appraisal Date:	15-Dec-2014	Estimated Board Date:	17-Feb-2015
Managing Unit:	GEEDR	Lending Instrument:	Investment Project Financing
Sector(s):	General energy sector (100%)		
Theme(s):	Infrastructure services for private sector development (75%), Rural services and infrastructure (25%)		
Is this project processed under OP 8.50 (Emergency Recovery) or OP 8.00 (Rapid Response to Crises and Emergencies)?			No
Financing (In USD Million)			
Total Project Cost:	15.00	Total Bank Financing:	15.00
Financing Gap:	0.00		
Financing Source			Amount
BORROWER/RECIPIENT			0.00
International Development Association (IDA)			15.00
Total			15.00
Environmental Category:	B - Partial Assessment		
Is this a Repeater project?	No		

2. Project Development Objective(s)

The project development objective (PDO) is to strengthen the capacity of the Recipient for improved energy sector planning and management supporting access enhancement.

3. Project Description

A. Project Components

The proposed Project includes five components constituting a total investment of US\$15 million to allow for a rapid and sustained capacity/institution building in the preparation and management of strategic energy infrastructure projects. The components are designed with a long term goal of access enhancement through a well-functioning and strong energy sector that supports investment and participation from the private sector. The Project components, described below, have been identified as high priority issues by the GRSS and are part of the 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. Each component is summarized below with estimated cost of activities.

Component 1: Improved Sector Planning: In order to design the electric power generation system of the future in South Sudan, it is imperative that detailed technical planning exercise be carried out. Activities under this Component will focus on two main areas: (i) development of a detailed least cost investment plan (LCIP) (Master Plan) which will develop a framework for the GRSS in identifying and sequencing investments to attract financing for infrastructure development as well as effectively coordinate with donor and private sector partners, and (ii) initial technical identification and pre-feasibility preparation studies for possible future investments, for up to 4 high-priority projects that are needed to augment generation and transmission capacity of South Sudan. Beyond the project, future developers will build on the information from the technical studies and may carry out specific detailed design and feasibility studies, including environmental and social assessments and mitigation plans.

(i) **The LCIP:** Development of the LCIP will include an assessment of electricity demand by carrying out load forecasting using user surveys as well as economic growth and consumption patterns. LCIP will include development of a generation expansion plan that not only considers the cost and availability (for instance, short term rentals vs. long term infrastructure) of power generation, but also considers the technical issues (sufficient reserve margin, technology choices), reliability (low supply interruption frequency), and diversity of the generation mix (risk mitigation). LCIP will develop a transmission and distribution network expansion plan considering appropriate capacity of lines and substation to most effectively evacuate power from generation plants to demand centers. The LCIP will also consider regional interconnections and describe the long term plans to develop a national grid transmission backbone in the country. In this context, the LCIP will be highly complementary to the proposed Hydropower Expansion Plan and Regional Integration Plan being supported by the Nile Basin Initiative/Nile Equatorial Lakes Subsidiary Action Program (NBI/NELSAP). The LCIP will analyze the mechanisms for sequencing of investments with guidance on policy level issues related to the development of the energy sector in the country, including, a description of a feasible long term access expansion plan, off-grid rural electrification plan, tariff and pricing policies, and institutional development needs.

(ii) **Technical Studies:** Component 1 will also include support for carrying out initial technical identification and pre-feasibility technical studies for possible future investments for up to 4 high priority projects that are needed to augment generation and transmission capacity of South Sudan. The list of possible candidate projects for the pre-feasibility studies has been prepared and it includes high priority generation plants (hydropower/thermal power) as well as power transmission lines. The projects for which studies will be actually carried out will be selected on the following selection criterion: (i) feasibility of the project as a result of initial investigation under the LCIP, (ii) priorities of the GRSS, (iii) appetite and interest of the private sector and other financiers, and (iv) overall benefits of the project in enhancing the sector development.

Component 2: Capacity Building Support: This Component will support the development of a comprehensive capacity building program, based on the recently carried out Capacity Building Needs Analysis Report.

(i) Training and Skill Development: It will also support the implementation of the activities for sector institutions, MoEDIWR and SSEC, to support improved technical, managerial, and operational skills (addressing legal and regulatory and financial viability issues). Support will be provided for training, workshops/seminars, study tours, and associated resources needed for developing and implementing long term skill building program, including the development of a permanent in-house training facility for the institutions. Training areas will include, inter alia, development of sector laws and regulations, support for developing utility reform programs (e.g. possible management contract or concession for the SSEC), technical design of energy infrastructure projects, long term planning, project management and implementation, procurement management, financial management, operational efficiency improvement tools and systems, and environmental and social safeguards management.

(ii) Safeguards Capacity Building: As part of Component 2, the Project will support preparation of a Strategic Environmental and Social Assessment for the energy sector.

Component 3: Efficient Management: This Component will finance a distribution efficiency improvement program, primarily focusing on improved commercial operations. Currently, the inefficiency and high losses represent fiscal burden of nearly 4 percent of the GRSS' budgetary expenses (which is much higher than average regional experience of 1-2 percent). The focus of the support provided under this Component will be on loss reduction, efficiency improvement through regular maintenance, enhanced ability of the sector institutions to service customers (e.g. through introduction of on-site service kiosks), and to improve billing and collection of revenues. This Component is not designed to invest in technical reinforcement of the network (substations, transformer, or wiring). In this approach, support provided under this Component is complementary with the planned program of activities being carried out by donor partners, such as, Norway and AfDB. Support will also be provided for developing and deploying pre-paid energy metering systems, including demonstration and training for installation of a central management facility, a vending and retail program for the meters and electricity credits, as well as associated information technology tools and resources, such as, customer relationship management system (CRM) and management information system (MIS). This Component will not only build the commercial management, administration and customer service, and billing and accounting capacity of the sector utilities, but will also support increased public awareness, targeted towards non-collection losses, and theft prevention informed by a poverty and social impact analysis during implementation.

Component 4: Off-Grid Access: This Component will support expansion of access to modern energy services to population segments that are not currently connected to the grid. This Component will support the development of off-grid access through investment in solar lighting of public institutions and market development of off-grid products and services.

(i) Public Institution Solar Lighting: This Component will support deployment of solar lighting equipment (such as: picoPV, solar home systems (SHSs), solar portable lanterns (SPLs)) at targeted public facilities in selected rural communities. Involvement of the local inhabitants of these communities will be solicited to ensure the safety and upkeep of the installed devices. Support will be provided for the design of a pilot program, selection of the targeted areas, and will include dissemination of solar powered devices to public schools, health centers, and government building.

The support will include installation and maintenance of systems as well as educational and public awareness building activities. The ESTAP will provide financing for the implementation of the solar lighting of public institutions, including supervision support of experts working alongside sector utility personnel. The program will coordinate closely and build on the experience of ongoing Bank operations in South Sudan, such as, the Local Governance and Service Delivery Project (LGSDP), Health Rapid Results Project, and the Safety Net and Skills Development Project. Based on the success of the pilot program, possible scale-up of the public institution lighting program will be explored including possible provision of IDA additional financing or co-financing through donor and trust fund programs.

(ii) **Market Based Approaches:** This Component will also support the design and development of GRSS's programs for enhancing off-grid access through market development of the RE and EE products and services. Support would be provided for policy and institutional development, development of favorable legal and regulatory environment (geared towards possible development of a REA in South Sudan), analytical assessment of supply chains, barriers to entry studies, and for design and development of supporting programs. A coordinated approach will be followed by various donor partner programs, including those led by the IFC, Bank's ongoing program supporting Trade and Competitiveness to carry out planned activities under this Component. This includes joint development of the Lighting Africa Program.

Component 5: Project Implementation Support: As the first IDA operation in the energy sector in South Sudan, this Component will provide implementation support through appropriate expertise and operating expenditure support to the ESTAP Project Management Unit (PMU). Support will be provided for strengthening the implementing team's capacity (e.g. financing of international specialists for procurement and financial management) as well as for financing day to day expenses related to setting up of the ESTAP PMU (e.g. information and communication technology (ICT) equipment, office furniture, etc.). Lessons learned in post-conflict fragile states have highlighted the need to invest early on in project planning lifecycles for the establishment of PMUs that can assist with the planning, design, and execution of complex infrastructure projects.

B. Project Financing

Lending Instrument

ESTAP will be financed as an Investment Project Financing (IPF) under an IDA Credit of US\$15.0 million with implementation anticipated to span a five year period. The Project will encourage effective coordination, participation of other international and bilateral donors, and participation of national stakeholders, both in the public and private sectors. GRSS has demonstrated commitment and leadership to strengthen the national energy infrastructure and to promote private investment in the sector.

C. Project Cost and Financing

Currently, there is limited historic costing and benchmarking data available for such operations in South Sudan. Project costing for ESTAP is based on most recent record of actual costs of similar contract and activities in other Sub-Saharan African countries with relevant local markup of estimates based on anticipated higher cost of operation in fragile states.

D. Lessons Learned and Reflected in the Project Design

There are several key lessons learned from typical operations in post-conflict fragile states around the world that have been incorporated in the ESTAP design:

Thorough analytical base: Experiences from previous post-conflict states, such as Sierra Leone and Rwanda, suggest that prior to initiation of a program of sector wide activities, it is important to carry out detailed analytical studies to determine the nature and scope of support required. Design of the ESTAP Project included key elements identified by the ESSN, the Capacity Building Needs Analysis and the Distribution Efficiency Improvement Reports.

Rigorous preparation support: A critical design element of the Project is the provision of comprehensive preparation and supervision support for the GRSS. As the first energy sector IDA operation in the newly independent state, it is imperative that sufficient expertise be provided to the Government institutions in order to better design and implement the Project, in accordance with the Bank guidelines. The support includes: mobilization of trust fund resources (to supplement the Bank budget) from Africa Renewable Energy and Access Program (AFREA), which is part of the larger ESMAP trust fund, to support preparation and initial implementation support. Support has also been provided through allocation of a Project Preparation Advance (PPA) for the GRSS institutions to undertake preparatory activities for the ESTAP.

Parallel execution of short and long term goals: Project design not only includes support for issues of urgent need, such as: capacity building and efficiency improvement, but it also includes support for longer term outcomes, such as, sector planning leading to large scale investment and initiation of off-grid access enhancement programs. This dual approach of laying a strong sector foundation today while also preparing it for future growth and investment (creating necessary conditions for private sector investment and public-private partnership models) has been an important lesson from previous Bank engagements in the energy sector.

Coordinating with sector partners: Given the magnitude of effort required, effective coordination and collaboration with donor partners (and other sector stakeholders, including the private sector) has been the guiding principle of the Project to establish a strong energy sector in South Sudan. The ongoing coordinated approach is supporting reduction in duplication of effort and alignment of objectives, in order to assist the GRSS's towards achieving its sector goals.

Investment requires pipeline of bankable projects: The Bank's experience in energy sector, such as in Myanmar and Liberia, has highlighted the need to invest in development of bankable projects in order to promote private sector investment. ESTAP will support the development of detailed technical studies that assist with this goal. In cooperation with the GRSS and other stakeholders, the Bank will also support the overall development of favorable investment climate in South Sudan.

Complementarity of on-grid and off-grid access: GRSS is committed to expansion of access to modern energy services to the masses. While grid-based access is the long term goal (supported by various key actions as part of ESTAP), initiating off-grid rural electrification programs, as part of ESTAP, will assist with the overall goal of access expansion. In this regard, lessons learned from Bank's deep engagement in off-grid access programs in Sub-Saharan African countries, such as, Lighting Africa, have been incorporated into the design of the Project. ESTAP also supports the promotion of private sector participation in access enhancement.

4. 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.

5. Environmental and Social Safeguards Specialists

John Bryant Collier (GENDR)

Varalakshmi Vemuru (GSURR)

6. Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/ BP 4.01	Yes	The proposed project mainly focuses on technical support and capacity building. No adverse and irreversible environmental or social impacts are expected to be generated due to the implementation of the proposed project. The activities under Component 3 and 4 have negligible to minimal environmental and social impacts and will be implemented according to national and local laws and procedures. To strengthen the capacity of the client and lay the foundation for the sectoral safeguards management that will ensure sound environmental and social safeguards implementation, the client will undertake a Strategic Environmental and Social Assessment (SESA) for the Energy Sector which will form the basis for the design of the policy, organizational structure and interventions for safeguards capacity enhancement activities during implementation of the project. The ToRs for the SESA were prepared, consulted upon, approved and disclosed on February 6, 2014 in the Bank's Infoshop and in South Sudan.
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	The project does not involve pest management.
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. The project is largely focused on providing TA at the level of the

		central government. It is also financing the installation of solar equipment at public facilities in villages and towns and thus does not involve traditional lands. Local communities will be consulted and participate in installing and maintaining the equipment.
Involuntary Resettlement OP/BP 4.12	No	No land acquisition leading to involuntary resettlement and/or restrictions of access is envisaged.
Safety of Dams OP/BP 4.37	No	N/A
Projects on International Waterways OP/BP 7.50	No	N/A
Projects in Disputed Areas OP/BP 7.60	No	The project is not taking place in disputed areas.

II. Key Safeguard Policy Issues and Their Management

A. Summary of Key Safeguard Issues

<p>1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:</p> <p>The proposed Project mainly focuses on technical support and capacity building with a pilot program on prepaid energy meters and off-grid access at limited scale. There are no adverse and irreversible environmental or social impacts expected due to the implementation of the proposed Project and the associated risk rating is 'Low'. The activities under Component 3 and 4 would have negligible to minimal environmental and social impacts. The anticipated impacts could be easily mitigated and/or avoided through sensible and diligent safeguards management practices that would be implemented according to national and local laws and procedures. The environmental assessment category of the proposed Project is assigned to Category 'B' and the Bank's Operational Policy on Environmental Assessment (OP/BP 4.01) is triggered.</p>
<p>2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:</p> <p>None anticipated.</p>
<p>3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.</p> <p>Not considered.</p>
<p>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.</p> <p>Currently, the sector institutions have limited capacity for preparation and implementation of environmental and social safeguards instruments. Therefore, to lay the foundation for the sectoral safeguards management under the proposed Project and to ensure sound environmental and social safeguards implementation, the Project will support a Strategic Environmental and Social Assessment (SESA). The SESA will assist in developing clear procedures and methodologies for environmental and social screening, planning, review, approval, and implementation of upcoming energy sector projects; establish a mechanism to determine and assess the potential environmental and social impacts of the upcoming investments in the energy sector; set out appropriate</p>

mitigation, monitoring and institutional measures to be taken during implementation and operation to avoid and/or minimize the expected environmental and social impacts to acceptable levels; and provide clear guidance on the training, capacity building and technical assistance needed to successfully implement the provisions of the safeguards instruments.

The TORs for the SESA have been prepared, consulted, approved and publicly disclosed on February 6, 2014 in the Bank's InfoShop and in South Sudan. The PMU will include Environmental and Social Safeguards Officers who will not only support awareness creation but also safeguards capacity enhancement activities at all levels during implementation of the Project. With the ongoing support of the Bank's safeguards team, ESTAP will focus on establishment of sound country systems for future growth of the sector.

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

During the preparation of the SESA, consultation will be carried out with a range of stakeholders including communities, NGOs, representatives of government from the relevant ministries, and other Donors at the national and state levels. The final SESA draft will also be consulted upon prior to finalizing the SESA. As part of the feasibility assessments for 3-4 high-priority projects that are needed to augment generation and transmission capacity of South Sudan by assisting with preparation of bankable transactions; extensive consultations will be carried out as part of the Environmental and Social Assessments that will inform the designs of these investments.

The project does not involve any activities that will result in adverse impacts on communities. The project will have positive impacts on communities based on the prepaid energy meters intervention which will provide access for poor households to electricity, and the off-grid access based on renewables which will involve public service centers like schools, health clinics and government offices in boma and payam levels which will benefit communities. While rolling out both these components extensive consultations with communities will be carried out to elicit their participation and ownership of these initiatives.

B. Disclosure Requirements

Environmental Assessment/Audit/Management Plan/Other	
Date of receipt by the Bank	03-Feb-2014
Date of submission to InfoShop	03-Feb-2014
For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors	
"In country" Disclosure	
South Sudan	03-Feb-2014
<i>Comments:</i>	
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.	
If in-country disclosure of any of the above documents is not expected, please explain why:	

C. Compliance Monitoring Indicators at the Corporate Level

OP/BP/GP 4.01 - Environment Assessment

Does the project require a stand-alone EA (including EMP) report?	Yes [<input type="checkbox"/>] No [<input checked="" type="checkbox"/>] NA [<input type="checkbox"/>]
The World Bank Policy on Disclosure of Information	
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"/>]
All Safeguard Policies	
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:	Name: Rahul Kitchlu	
Approved By		
Practice Manager/ Manager:	Name: Lucio Monari (PMGR)	Date: 20-Nov-2014