PROJECT INFORMATION DOCUMENT (PID)
CONCEPT STAGE

Report No.: AB7707

Project Name	Renewable Energy Power Guarantee Project
Region	AFRICA
Country	**Mali**
Sector(s)	Energy and Mining: Hydropower (50%) and Other Renewable Energy (50%)
Theme(s)	Infrastructure services for Private Sector Development (100%)
Project ID	P148355
Borrower(s)	Republic of Mali
Implementing Agency	Segou Solar JV *[for Segou Solaire project, the first of the series]*
Environment Category	B
Date PID Prepared	29-Sep-2015
Estimated Date of Board Approval	31-May-2016

I. Introduction and Context

Country Context

Mali is a large (1,241,238 square km) landlocked country in the Sahelian belt in West Africa. It has a rapidly growing population of about 14.9 million unevenly distributed due to the fact that about 60 percent of its surface area is desert. Population density is low and highly dispersed. The majority of the population (about 73 percent) lives in rural areas.

In 2012 and the beginning of 2013, Mali faced a complex crisis on three fronts (conflict and insecurity in the North, institutional and political turmoil in the South, and humanitarian and food insecurity across the country due to the 2011 drought) that had eroded the base of Mali's economy and society, including the Government's ability to provide basic services for the population. The situation in 2014 and 2015 remains fragile. Security remains highly volatile following the signing of a peace agreement in June 2015.

Sectoral and Institutional Context

Despite significant progress over the last decade, access to modern energy services remains low in Mali. Current rates of access to electricity are estimated at about 30 percent nationally, corresponding to an access rate of 55 percent in urban areas and 18 percent in rural areas.

Electricity service provision in urban areas is provided by Energie du Mali- SA (EDM), the vertically integrated majority state-owned utility. The rural electrification agency, *Agence Malienne pour le Développement de l'Energie Domestique et l'Electrification Rurale* (AMADER) has led impressive progress on rural access with a ten-fold increase from about 1 to 2 percent of the rural population, to 18 percent in less than a decade. The large majority of rural households still satisfy their energy needs by using kerosene and dry-cell batteries, which are extremely expensive and unreliable. Other key institutions in the sector include the Commission de Régulation de l'Electricité et de l'Eau (CREE) – which regulates the sector; and the Ministry of Energy (MoE), under which fall the Direction Nationale de l'Energie (National Directorate of

Energy, DNE), as well as various agencies dedicated to sub-segment of the energy sector.

At the end of 2015, EDM client base will reach about 400,000 connections, against 120,000 twelve years earlier. Till 2006, the expansion of grid-electricity was made possible by the availability of low-cost hydropower from the Manantali hydropower plant. Since then, the Government adopted a strategy combining expensive short-term domestic thermal generation with longer term regional solutions expected to result in lower generation costs. The regional solutions included building infrastructure to interconnect with Cote d'Ivoire, and further development of Mali's hydropower potential, in particular through the Félou regional hydropower project.

Thermal generation represented 47 percent of the generation mix in 2013 and is expected to reach 62 percent in 2017. Thermal generation is fueled by imported petroleum products, which are especially costly in Mali, a landlocked country connected with importing ports through poor transport infrastructure.

This shift in the generation mix was not reflected in adjustments to the regulated national electricity tariffs. From 2004 to 2012, the Malian authorities did not implement any tariff adjustments, with the exception of a limited 3 percent increase in 2009. The national utility company faced increases in operating costs, which it could not pass-on to consumers, resulting in a distressed financial situation and a deterioration of the utility's technical and operational performance. It also accumulated short term debts with local Banks and suppliers. EDM reduced capital and maintenance expenditure to a minimum. Since 2010, significant GoM subsidies to EDM have been required to cover operating costs (fuel purchase) and maintain electricity supply. In 2014, EDM received approximately US$98 million in subsidies.

In 2013, the new authorities put in place a Task Force jointly chaired by the Minister of Energy and the Minister of Budget to identify and implement key actions to redress the sector. Other members of the Task Force include CREE and EDM. The Task Force developed a recovery plan (with World Bank technical support) to eliminate subsidies by 2018 while being able to accommodate rapidly growing demand.

The recovery plan foresees tariff adjustments, investments in hydro capacity, conversion to heavy fuel, higher imports from Cote d'Ivoire, fiscal exoneration for emergency power generation rental in Senegal, as well as measures to improve EDM operational and commercial performance. The improvement of EDM financial situation in 2015 and 2016 despite the absence of tariff adjustments, will nonetheless be mostly attributable to exogenous factors, ie. the drop in oil price started at the end of 2014 and the increase of imports from Ivory Coast planned for 2016.

Inspired by the reform of the water sector initiated in 2009, GoM intends to use a similar approach for the power sector through the creation of an asset company and an operator, both fully state owned by 2018.

The development of renewable energy, including the exploitation of hydro and solar potential is part of the least-cost development plan to put the sector on a sustainable path.

Relationship to Country Strategy

The project is fully consistent with the World Bank Country Partnership Framework with Mali endorsed by the WBG Board of Executive Directors on December 10, 2015. The World Bank Group Country Partnership Framework (CPF) for FY16-19 lays out three areas of focus that WBG interventions expect to help Mali achieve: (i) improve governance; (ii) create economic opportunities; and (iii) build resilience. A comprehensive program has been proposed for the first two years of the CPF that includes knowledge activities and development policy operations to address the binding constraints to poverty reduction identified in the Systematic Country Diagnostic (SCD) completed in July 2015, as well as build citizen engagement, and address the drivers of Mali's fragility, in particular governance, climate change and demographic growth. The Framework proposes a well-balanced set development and investment financing, partnerships, and joint IFC/IDA investments and guarantees. Key areas include competitiveness and agricultural productivity, statistical capacity, climate change, water and sanitation, safety nets programs, energy, irrigation and transport, accompanying the peace process with support to decentralization and reinsertion programs.

The proposed Project will directly support the second area of focus of the CPF (create economic opportunities) supporting the country economic development by securing the affordable, reliable, and sustainable energy supply, needed to end poverty and promote shared prosperity.

II. Proposed Development Objective(s)

The project development objective of the series is to increase the supply of renewable energy by Independent Power Producers (IPP).

Key Results

The series will consist of two guarantees. The first guarantee is for Segou solar project. The second guarantee is for the Kenie hydropower project. Other projects may be considered based on GoM's request and availability of IDA resources. Progress towards achieving the outcomes of the series will be measured by the following indicators: (i) Amount of electricity generated by the Segou solar and Kenie hydropower projects (GWh/year); (ii) amount of private capital leveraged (US$); (iii) project beneficiaries (number), of which female (%).

The project beneficiaries are current and prospective commercial and household electricity consumers, facing unreliable service due to supply limitation and access constraints. EDM will benefit from additional cost-effective power that will contribute to reduce average electricity cost of production, thus alleviating financial constraints. The Government of Mali will benefit from freed public resources that would have otherwise been used in subsidies to EDM to bridge the gap between electricity tariff and actual cost.

III. Preliminary Description

The proposed operation consists of a series of IDA payment guarantees to mitigate the risks of the low creditworthiness of EDM as a sole power off-taker, as well as selected obligations of GoM under the concession contract, in order to enable renewable energy IPP investments in the sector. The first guarantee of the series will support the development of the Segou Solar project.

Description of the Segou solar project

Segou solar project has been developed with the support of IFC InfraVentures since January 2011. It is the most advanced solar IPP of a number of solar projects pursued by GoM. Both concession and PPA contracts have been signed on July 9, 2015. This pioneering on-grid large scale solar photovoltaic IPP project will pave the way for subsequent solar IPP developments in Mali and throughout the sub-region.

The Project consists in the construction and the financing of a greenfield 33MW polycrystalline PV plant, made of approximately 130.000 PV modules installed on a fixed structure, located in Segou, the fifth largest city in Mali, 236 km North-East from Bamako. The plant will generate 57 GWh on yearly basis. It will be connected to a 33 kV line on the national grid through an existing substation and a 2.5 km transmission line to be constructed by the project. The plant will be built, operated and maintained by Segou Solaire SA, the project's concessionaire. This JV is composed by Scatec Solar AS, IFC Infraventures and a local partner. The main shareholder will be Scatec Solar AS, a company experienced in developing, constructing and operating solar plants in Africa. This company will also be EPC and O&M contractor under specific agreements with the project's concessionaire.

The total project cost is estimated at about EUR 50 million, of which EUR 40 million for the EPC works and EUR 4 million for development costs. Equity will finance 25% of the overall costs. Concessional and commercial debts will cover the rest. Construction is expected to start by mid-2016 and the project is expected to start commercial operation 10 months later.

IV. PERFORMANCE STANDARDS THAT MIGHT APPLY TO SEGOU SOLAR PROJECT

Performance Standards *(please explain why)*	Yes	No	TBD
PS 1: Assessment and Management of Environmental and Social Risks and Impacts	**X**		
The project has been categorized as Category B and meets the criteria in OP 4.03 for application of the World Bank Performance Standards.			
PS 2: Labor and Working Conditions	**X**		
PS 3: Resource Efficiency and Pollution Prevention	**X**		
PS 4: Community Health, Safety, and Security	**X**		
PS 5: Land Acquisition and Involuntary Resettlement	**X**		
Some land acquisition and subsequent resettlement or losses of assets/access to livelihoods will take place due to the construction of the plant and transmission line; therefore the PS 5 is triggered for this project to address such negative social impacts. A Resettlement Action Plan (RAP) is being prepared to address any adverse social impacts and will be subject to consultations, approved and disclosed publicly.			
PS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources			
PS 7: Indigenous Peoples		**X**	
No groups that meet the definition in PS7 have been identified in the project area.			
PS 8: Cultural Heritage	**X**		
The ESIA will verify if there is cultural heritage, such as shrines or archaeological remains, in the project area.			
OP 7.50: Projects on International Waterways		**X**	

V. Segou Solar Project Financing (in EUR Million)

Total Project Cost:	50.20	Total Bank Financing:	0.00
Financing Gap:	0.00		

Financing Source	**Amount**
Equity	12.60
Concessional debt (SREP)	15.10
Commercial debt (incl. AfDB and IFC)	22.50
Total	50.20

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