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Project Information Document/ Integrated Safeguards Data Sheet (PID/ISDS)

Concept Stage | Date Prepared/Updated: 28-Jun-2017 | Report No: PIDISDSC22125



BASIC INFORMATION

A. Basic Project Data

Country Western Africa	Project ID P162933	Parent Project ID (if any)	Project Name North Core/Dorsale Nord Regional Interconnector Project (P162933)
Region AFRICA	Estimated Appraisal Date Feb 26, 2018	Estimated Board Date Sep 25, 2018	Practice Area (Lead) Energy & Extractives
Financing Instrument Investment Project Financing	Borrower(s) Government of Nigeria, Government of Burkina Faso, Government of Niger	Implementing Agency Government of Benin	

Proposed Development Objective(s)

The Project Development Objective is to increase and enhance electricity trade between Niger, Nigeria, Benin and Burkina Faso.

Financing (in USD Million)

Financing Source	Amount
African Development Bank	84.82
Borrower	11.72
FRANCE: Govt. of [MOFA and AFD (C2D)]	56.42
International Development Association (IDA)	418.61
Islamic Development Bank	38.44
Total Project Cost	610.01

Environmental Assessment Category B-Partial Assessment	Concept Review Decision Track II-The review did authorize the preparation to continue
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Environmental Assessment Category: B – Partial Assessment

Other Decision (as needed) None

B. Introduction and Context

Country Context

1. The Economic Community of West African States (ECOWAS), established on May 28 1975, comprises 15 member states and encompasses over 300 million inhabitants, with nearly 170 million of them lacking access to electricity or adequate energy services. Despite the region's large energy endowment, the per capita consumption of electricity is among the lowest in the world with approximately 160 kWh per capita. The three major shortcomings in the region are: (a) lack of sector planning and capacity to expand the electricity sector in a coherent and cost-efficient manner; (b) lack of adequate transmission infrastructure (within and between national power systems), which curtails the possibility of the countries to link remote sources of electricity to the main consumption centers; and (c) insufficient investment in distribution and rural electrification to bring services to the people, even when electricity is available.

2. Recognizing the fact that past efforts to achieve national self-sufficiency in electricity supply have been uneconomical due to the high cost of establishing power generation and transmission infrastructure, in 2000 the ECOWAS Member States agreed on and in 2006 founded the West African Power Pool (WAPP), a cooperative power pooling mechanism for integrating national power system operations into a unified regional electricity market. The expectation of the WAPP is that it will, over the medium to long term, serve to ensure a stable and reliable supply of electricity at affordable costs for all ECOWAS citizens.

Sectoral and Institutional Context

1. The countries of the ECOWAS prepared a WAPP Business Plan, a blueprint for the integration of energy markets in the region, which comprises a number of distinct but mutually reinforcing infrastructure sub-programs, planned to over time create a unified regional power grid. These include:
 - Coastal Transmission Backbone (Cote d'Ivoire, Ghana, Benin/Togo, Nigeria);
 - Inter-zonal Transmission Hub Sub-program (Burkina Faso and Mali via Ghana, OMVS via Mali, Liberia-Sierra Leone-Guinea via Cote d'Ivoire);
 - OMVG/OMVS Power System Development Sub-program (The Gambia, Guinea, Guinea Bissau, Mali, Mauritania and Senegal);
 - North Core/Dorsale Nord Transmission Sub-program (Nigeria, Niger, Burkina Faso, Benin); and Cote d'Ivoire, Liberia, Sierra Leone and Guinea Power Interconnection Project



2. The proposed North Core/Dorsale Nord Regional Interconnector commences in Burkina Faso, stretching across Niger into Northern Nigeria and Benin.
3. The World Bank has supported the WAPP through the Adaptable Program Lending (APL) instrument, launched in 2005 within the framework of the World Bank's Regional Integration Assistance Strategy (RIAS) for West Africa as the main vehicle for providing IDA credit support to the WAPP initiative. At that time, the Bank dedicated US \$350 million in IDA resources under the IDA Regional Pilot Program to put in place a multi-year programmatic framework, to help ensure the timely implementation of WAPP priority investments and technical assistance activities under the Revised WAPP Master Plan. The APL instrument provided a framework for IDA credit support to the original set of WAPP priority projects, and allowed for the reinforcement of policies through dedicated policy triggers, such as the country commitments and ratification of the ECOWAS Energy Protocol.
4. While the original APL umbrella envelope of US \$350 million has been used, the World Bank's support to the WAPP expanded into its engagement in the ongoing implementation of the WAPP Business Plan priority projects, such as the CLSG (IDA Cr. US\$144.5M, Grant US\$31.5M approved in May 2012) and the Interconnection project for the Gambia River Basin Development Organization (OMVG) (IDA Cr. US\$200 million approved in April 2015). More recently, the Bank has also launched the preparation of another regional project, the interconnection project for the Senegal River Basin Development Organization (OMVS), and has expressed interest in participating in the financing of another project, to build the Guinea-Mali Transmission Interconnector.

Relationship to CPF

1. The goals of the North Core/Dorsale Nord Project are aligned with the World Bank corporate goals of ending extreme poverty and promoting shared prosperity through providing its four countries with additional affordable, reliable and sustainable electricity. In addition, the goals are expressed in the project's promotion of regional integration, which is likely to contribute to the further integration of the countries' and the overall regional markets, infrastructure and natural resource management, therefore likely resulting in more sustainable growth and development through increased trade and economic competitiveness and improved physical connectivity.
2. The proposed Project also supports the first pillar of the World Bank's Africa Strategy on promoting competitiveness, as, through lowering generation costs, it aims to aid in the stabilization and financial recovery of the countries' utility companies, and to reduce their dependency on government subsidies.
3. In the energy sector, the project is in line with both: Directions for the World Bank Group's Energy Sector, which emphasized the leveraging of private sector resources and experience to enable reliable and more efficient energy sectors in developing countries; and the Africa Energy Strategy, particularly the first three pillars that target scaling up regional power generation and transmission capacity, expanding electricity coverage, and improving sector planning and utility performance.
4. Finally, country-wise, the proposed Project is in line with the strategic context of the World Bank in each country, with energy as one of the focus areas of the Country Partnership Frameworks of Niger, Nigeria, Benin and Burkina Faso.



C. Proposed Development Objective(s)

Note to Task Teams: The PDO has been pre-populated from the datasheet for the first time for your convenience. Please keep it up to date whenever it is changed in the datasheet.

The Project Development Objective is to increase and enhance electricity trade between Niger, Nigeria, Benin and Burkina Faso.

Key Results (From PCN)

The expected PDO level results include:

- Additional annual energy traded between Nigeria and Niger (GWh/year);
- Additional annual energy traded between Nigeria and Burkina (GWh/year);
- Additional annual energy traded between Nigeria and Benin (GWh/year);

D. Concept Description

1. The proposed project will comprise construction of 875 km of a 330 kV high voltage transmission line, from Birnin Kebbi (Nigeria) to Ouagadougou (Burkina Faso) through Zabori (Niger), Niamey (Niger) and with a connection to Malanville (Benin). In addition to the transmission line, the project will include the construction or extension of six substations (Birnin Kibbi in Nigeria, Zabori and Gorou Banda in Niger, Ouaga East and Ouaga South East in Burkina Faso and Malnaville in Benin), and the installation of SCADA, construction and/or rehabilitation of National Load Dispatch in the four countries Center dispatch centers, synchronization/compensation equipment and fiber optic along the line. This regional interconnector will have an initial transport capacity of about 430 MW, which could reach up to 600 MW five to ten years after initial entry in service.

2. The proposed project includes two components, each of them being implemented independently. The first component is dedicated to the construction of the North Core/Dorsale Nord Power Interconnection. The second component will cover the technical assistance to the WAPP and the four participating countries to build the skills and institutional strength needed to effectively implement the project and ensure the sustainability of the results, and an efficient trade of energy in a regionally integrated market. The overall cost of the project is estimated at USD 729.2 million, with the IDA commitment estimated at USD 419.5 million.

3. In addition, the North Core Project includes electrification activities in each of the participating countries, which will allow to bring access to electricity from the Transmission Line to the local populations either from the substations or directly from the line, using low cost shield wire technology. These activities have a total estimated cost of US\$ 119.21 million and will be implemented in consistence with the national electrification strategies in each participating country and will be managed by their respective national utilities. It will finance the electrification of communities along the line within a radio of 5 km on each side of the line. IDA resources channeled through existing WB-financed electrification projects in Benin will finance the electrification activity in the case of Benin, which has a cost of US\$0.92 million. This will require a restructuring of the project currently under implementation, which will be processed in parallel with the preparation of this proposed regional project.

4. The project's main components are the following:



Component 1: Power Interconnection between Niger, Nigeria, Benin and Burkina Faso (Project USD 602.3 million, of which IDA Credit USD 411.9 million).

Under this component, the infrastructure of the 880 kms of transmission interconnection between Niger, Nigeria, Benin and Burkina Faso is being financed. The component will be implemented by an Project Management Unit, hosted in the WAPP Secretariat, and it will be co-financed by AfDB, AFD, EU, IsDB, EBID and IDA. The co-financing structure is based on parallel financing. A coordinated procurement strategy for the structuring of the bidding process and bidding documents has been adopted.

Component 2: Technical Assistance (Project USD 7.7 million, IDA Credit USD 6.7 million):

1. This component will be mostly financed through a IDA grant provided to the WAPP- Secretariat, and managed by the PMU of the North Core. The remaining TA financed by the AFDB (\$1 million) aims specifically to support Burkina Faso and will be managed by SONABEL.

2. This component will focus on technical assistance (TA) and capacity building activities related to institutional, technical and commercial aspects related to the use of this North Core Interconnector. Technical assistance under this component will aim to facilitate the integration of these countries into a regional energy market, foster cost efficient exchanges of electricity through the line, and build the capacity of the various stakeholders, in the WAPP and in the four participating countries to make the best use of the line.

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SAFEGUARDS

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

The proposed Project will comprise the construction of 875 km of a 330 kV high voltage transmission line across four countries; from Birnin Kebbi (Nigeria) to Ouagadougou (Burkina Faso) through Zabori (Niger), Niamey (Niger) and with a connection to Malanville (Benin). The right-of-ways of the transmission line cross some sensitive areas such as protected forests, such as touching the limits of the Gonse protected forest near Ouagadougou, natural habitats, although no national parks will be affected as they have been avoided. In Niger, the Dallol Maouri Ramsar site will be crossed for 24 km as well as the Dallol Bosso Ramsar site for 37 km. The line crosses in Niger the bird and biodiversity area of Makalondi for 50 km and passes through an area of classified forests; line will also cross some human settlements and farms although these have, as far as possible, been avoided. In Nigeria and Benin no sensitive ecosystems will be crossed. In the project design and line routing, significant efforts have been made to avoid and minimize negative impacts to the physical environment as well as the local populations. Mitigation measures are included in the safeguards instruments for the project; ESIA's and RAPs.

B. Borrower's Institutional Capacity for Safeguard Policies

A Project Management Unit (PMU) will be set up in the initial stage of project preparation until satisfactory reception of



the completed facilities by the countries’ utilities. It will be housed within the WAPP. During this process, special care will be taken to ensure sufficient capacity is developed within the PMU to ensure adherence to safeguard policies. The possibility of having national level safeguards teams is being discussed. Recruitment of highly qualified Environmental and Social specialists is already included in the organigram of the proposed PMU. Bank missions will also include environmental and social specialists.

C. Environmental and Social Safeguards Specialists on the Team

Robert A. Robelus, Social Safeguards Specialist
Amos Abu, Environmental Safeguards Specialist
Paivi Koskinen-Lewis, Social Safeguards Specialist

D. Policies that might apply

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	The construction of the 875 km transmission line will cause environmental, social and Health & Safety impacts, which need to be avoided, mitigated and managed. The ESMP is comprehensive and Health and Safety measures are included. A detailed Analysis of Alternatives was carried out to select the most optimal line route from a technical, environmental and social perspective by applying a Multi-criteria Analysis. Three different line routes were analyzed in detail.
Natural Habitats OP/BP 4.04	Yes	The transmission line Right-of-Way passes through natural habitat, such as the Dallol Maouri Ramsar site in Niger, which will be crossed for 24 km as well as the Dallol Bosso Ramsar site to be crossed for 37 km. The line crosses in Niger the bird and biodiversity area of Makalondi for 50 km. and passes through an area of classified forests.
Forests OP/BP 4.36	Yes	The transmission line Right-of-Way passes through a protected forest area. In Niger the lines passes through an area of classified forests, as well as the limits of the protected Gonse forest near Ouagadougou.
Pest Management OP 4.09	No	
Physical Cultural Resources OP/BP 4.11	Yes	Consultation with local communities did not identify any physical cultural resources sites such as graves. However, during construction of the towers accidental finds could occurs. For this reason all construction contracts will include “A Chance Find Procedure.”.
Indigenous Peoples OP/BP 4.10	No	There are no Indigenous Peoples as per the criteria in OP 4.10 in the project areas.
Involuntary Resettlement OP/BP 4.12	Yes	This policy is triggered due to the adverse social



impacts related to land acquisition (permanent or temporary) and clearing of the Right-of-Way (ROW); the construction of new substations and tower spots; and stringing of the transmission line. To mitigate such impacts, Resettlement Action Plans are being prepared for each of the countries following the requirements of OP 4.12 and will be consulted upon and publicly disclosed prior to appraisal. Physical resettlement is to be minimized, while some economic displacement may occur.

Safety of Dams OP/BP 4.37	No	The project does not include any dam.
Projects on International Waterways OP/BP 7.50	No	The project will not affect international waterways
Projects in Disputed Areas OP/BP 7.60	No	There are no disputed areas in the project Right-of-Way

E. Safeguard Preparation Plan

Tentative target date for preparing the Appraisal Stage PID/ISDS

Jan 15, 2018

Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing should be specified in the Appraisal Stage PID/ISDS

Expected to be prepared for clearance by January 15, 2018, and approved and disclosed before the date of the appraisal commencement, February 26, 2018 .

CONTACT POINT

World Bank

Clemencia Torres De Mastle, Franklin Koffi S.W. Gbedey, Pedro E. Sanchez
Senior Energy Economist

Borrower/Client/Recipient

Government of Nigeria
Gladys EKWERE EKWERE
Chief Admin. Officer, Infrastructure,International Econornlc
gladyset003@yahoo.com

Government of Burkina Faso
Abdoul Azir OUEDRAOGO



Inspecteur du Tresor
azizouedraogo@yahoo.fr

Government of Niger
Idi DAN KARI
Directeur de la Dette Publique
ididkar94@yahoo.fr

Implementing Agencies

Government of Benin
Clément Bill AKOUEDENOU DJE
Directeur General de l'Energie p.i
bill.akoue@yahoo.fr

Tcharabalo ABIYOU
Directeur General de l'Energie
tcharabal_abiyou@yahoo.fr

FOR MORE INFORMATION CONTACT

The World Bank
1818 H Street, NW
Washington, D.C. 20433
Telephone: (202) 473-1000
Web: <http://www.worldbank.org/projects>

APPROVAL

Task Team Leader(s):	Clemencia Torres De Mastle, Franklin Koffi S.W. Gbedey, Pedro E. Sanchez
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Approved By

Safeguards Advisor:	Maman-Sani Issa	08-Nov-2017
Practice Manager/Manager:	Manuel Luengo	20-Nov-2017
Country Director:	Indira Konjhodzic	05-Dec-2017

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