INTEGRATED SAFEGUARDS DATA SHEET
CONCEPT STAGE

Report No.: AC3342

Date ISDS Prepared/Updated: 09/05/2008

I. BASIC INFORMATION

A. Basic Project Data

Country: Africa	Project ID: P108934
Project Name: Regional Transmission Development APL	
Task Team Leader: Somin Mukherji	
Estimated Appraisal Date: June 7, 2010	Estimated Board Date: March 7, 2011
Managing Unit: AFTEG	Lending Instrument: Adaptable Program Loan
Sector: Power (70%);Other domestic and international trade (30%)	
Theme: Infrastructure services for private sector development (67%);Regional integration (33%)	

IBRD Amount (US$m.):	0.00	
IDA Amount (US$m.):	90.00	
GEF Amount (US$m.):	0.00	
PCF Amount (US$m.):	0.00	
Other financing amounts by source:		
BORROWER/RECIPIENT		10.00
IDA Guarantee		50.00
Financing Gap		350.00
		410.00

B. Project Objectives [from section 2 of PCN]

Program- Regional Development Objective: Catalyzing the implementation of private sector investment in generation and transmission developments that are consistent with the "SAPP Indicative Generation and Transmission Expansion Plan", specifically focusing on opportunities where WBG support can mobilize significant amounts of private capital.

APL 1 Project Development Objective: Build the first stage of the Mozambique north-south transmission backbone system required to evacuate electricity from the planned Tete Power Plants which will (i) enable competitively-priced electricity to reach the Southern Africa Power Pool network, (ii) enable the provision of a supply of least-cost generation at a high level of reliability to the Mozambique domestic market and (iii) enable the generation of revenues for the Mozambique treasury which will significantly contribute to continued strong balance of payments and robust economic growth necessary to underpin the Government's continued poverty reduction efforts.

C. Project Description [from section 3 of PCN]

The scale of the financing required to meet the regional demand for electricity is such that public sector financing alone cannot provide the resources necessary. There will have to be a large amount of private capital mobilized to realize the required expansion in generation and transmission investments. In order to play a catalyzing role in these developments, WB needs a mechanism for providing catalytic support on time and in the form needed (i.e. credit / loan / guarantee etc.) to facilitate participation of private sector sponsors and financing.A horizontal APL series is proposed as the appropriate WB instrument to provide this catalytic support.

A critical element of such an instrument is flexibility. Hence it would be important to design the program based on criteria for eligibility, which would support financing of eligible privately-led investments progressively identified as a part of the evolving SAPP generation and transmission system. While the SAPP Indicative Generation and Transmission Expansion Plan will be an important guide to selection of eligible projects, the plan is based only on economic considerations. Private sector in selecting and financing these projects will take into account the economic and financial viability of projects, but other considerations will also be important, e.g. perceived risk, strategic requirements of off-takers, conditions by commercial lenders, transmission constraints, etc. Hence the World Bank support mechanism through the proposed APL would avoid prescribing the order and specific set of projects. Instead the World Bank support mechanism would explicitly recognize the factors that will be key for private participants. In addition, the World Bank support would limit conditions to those that are relevant to each specific project – and would avoid imposing conditions relating to the progress or performance of other projects where the same private party is not involved and/ or where a government outside the host country(ies) is involved as this would expose the implementing private party to risks which they cannot manage, mitigate or price.

Proposed Eligibility Criteria

Countries would become eligible for WB support under the proposed horizontal APL series:

- if they are a member of SAPP and are abiding by the SAPP guidelines; and if WB is satisfied that the country / borrower has the ability to effectively participate in regional trade (e.g. reasonable tariffs, policy, regulatory, legal systems that allow for import and export of power; necessary technical capacity to integrate into the SAPP network) or the project could finance technical upgrades as needed.

- Along with these general criteria, there would be triggers relating to normalWB due diligence in terms of Bank standard requirements (fiduciary, safeguards) and that the proposed project fits into the WB country partnership strategy(ies).

Projects would be considered on the basis of:

- Project is private-sector led and leverages considerable private sector finance for the power sector. (This could include transmission line investments that are public sector-financed but are necessary to move forward with a privately-financed Generation project).

- Project is (i) identified in SAPP Indicative Generation Transmission Expansion Study, or (ii) a transmission investment (domestic or trans-boundary) that is necessary to implement a generation project that is identified in SAPP Indicative Generation Transmission Expansion Study; or (iii) a new Generation or Transmission project that can be demonstrated to be competitive (taking into account cost, timing, market and financing) with projects mentioned in the plan. This last criterion is necessary since the plan will be a guide rather than a master plan, and should not exclude the possibility of new, competitive projects being considered as they are identified and developed.

- The process for the selection of the private party, financing plan, risk sharing arrangements are acceptable to the Bank and the project entity agrees to comply with Bank's policies and guidelines.

- WB is satisfied that the proposed project has regional benefits.

Preliminary Project Description: APL 1 - Mozambique Regional Transmission Development Program Stage 1

The timing of the mega-generation projects and the stages of the North-South Transmission backbone system have to be synchronized. In order for project sponsors to reach financial close for the generation investments it will be necessary to demonstrate that financing for the transmission, required to evacuate electricity from the new power plants, is also lined up. Similarly, financing for the transmission investment cannot be arranged without a high degree of certainty regarding the generation investments.

The Moatize and Mphanda Nkuwa generation project sponsors have set out ambitious schedules, based on a perceived window of opportunity in terms of selling electricity to Eskom . Individually, each of the generation projects and the north-south transmission backbone project have huge financing requirements which will be tackled on a project finance basis, with significant amounts expected from commercial lenders. The timing of the generation developments will depend on several factors not completely within the control of the developers or the Government (e.g. completion of fuel supply agreement, power off-take agreements etc.). Considering the shorter construction time for thermal-based generation compared to hydro, it appears likely that the Moatize project will be commissioned first, and it is possible that the first units of the Mphanda Nkuwa project could come on line a few years later.

A key feature in the design of a project to support the development of the North-South transmission line is flexibility. Support for the north-south transmission backbone project must be designed to (i) provide early clarity on the commercial and technical design for the whole transmission backbone system; (ii) mobilize financing for the first stage of the transmission backbone system on the schedule planned for the first Tete power plant; and (iii) mobilize financing for the subsequent stages of the transmission backbone system on the schedule planned for the subsequent Tete generation projects.

EDM has hired consultants under World Bank financing to undertake a least cost integrated transmission backbone system study. The consultants have completed the inception report which was presented to the key stakeholders (ME, EDM, developers, Eskom, WB etc.) on April 4, 2008. The inception report presents two options for staged development of the transmission system. The option which, according to the initial assessment, best fulfils the objectives, is as follows:

- Stage 1 (linked with the first stages of new generation i.e.1,200 MW at Moatize, possibly 700 MW at Mphanda Nkuwa, and possibly 500MW at Benga) : One or two HVAC lines from Matambo (Tete) to Maputo (2013);
- Stage 2 (linked with the next increment of new generation capacity i.e. another 1,200 MW at Moatize, 700 MW at Mphanda Nkuwa): A second HVAC line if only a single circuit is included in the first stage. Upgrade the existing Songo-Apollo HVDC system from 1920 MW to 3300 MW if technically feasible (2014).
- Stage 3 (linked with, Cahora Bassa North, and the recently-proposed Benga coal-fired generation project): Build new 4,000 MW HVDC system from Matambo to KwaZulu Natal in South Africa (2015).

The following single line transmission diagram (figure 3 below) depicts the preliminary view of the staged development of the above transmission system based on the inception report. This will be updated when the final report is received at the end of July, 2008. The transmission links from the generating stations to the Matambo substation will be the responsibility of respective generators and will be financed and constructed by the consortium developing the particular generating station.

Depending on the timing of the second and third stages of the transmission backbone, there could be a subsequent project in this APL series to support further stages of the north-south transmission backbone.

Proposed Transmission Special Purpose Vehicle (SPV) A Transmission SPV would be established to develop, own and operate the planned new transmission backbone system under a BO(O)T arrangement. Initially the Transmission SPV would focus on the development of the first stage of the system, associated with the first new Tete generation project. EDM, along with the generation developers and possibly other interested parties would hold equity in the Transmission SPV. This would then become the vehicle for the development of subsequent stages of the north-south transmission backbone system. The developers for the Tete generation projects would contribute equity and assist in financing of the development of the first and subsequent stages of the integrated North-South transmission backbone system. Having an existing revenue-earning commercial entity in place for the first stage could potentially facilitate the financing of the second and third stages of the transmission backbone system.

Proposed EDM Role In the near term, EDM will play a lead role in technical coordination of the key stakeholders of the north-south Transmission System. EDM is also expected to have significant equity in the Trasnsmission SPV. Over the medium-to-long term, full ownership and responsibility for operation of the backbone system would revert to the Government as per the planned BO(O)T arrangement. EDM, as the state-owned electric utility (or potentially a state-

owned, successor transmission company derived from EDM), would be the Government's designated vehicle for transmission assets and operations. The transition from the current relatively small domestic utility to an owner and system operator of a key SAPP transmission corridor will take some years. The APL structure will enable the World Bank and EDM (and other partners as appropriate) to work together over the medium to long term in implementing the transition successfully.

Transmission System Coordination Working Group A Transmission System Coordination Working Group (WG) has been convened, with EdM taking the lead role in coordination on technical issues. EDM, Ministry of Energy and each generation developer are represented. ESKOM will be invited to participate in the deliberations of the working group as appropriate. The purpose of the WG is to ensure coordination regarding commercial and technical considerations for the north-south Transmission backbone project.

Taking into account these project design criteria, the following Project is proposed:

• APL 1: MOZAMBIQUE REGIONAL TRANSMISSION DEVELOPMENT PROGRAM STAGE 1: (indicative cost $900 million) would contribute to financing the investment and technical assistance focused on the development of the first stage of the North-South Transmission backbone line required for the first Tete Generation project(s).

The components of the proposed project would be:

- Component A: IDA credit and PRG to contribute to the financing of the transmission and substation investment.

- Component B: technical assistance to EDM (and possibly Ministry of Energy) related to their roles in the north-south transmission backbone project.

Proposed IDA financing would be $90 million (1/3 from Mozambique IDA allocation and 2/3 from regional IDA) - to be split about $60m for EDM equity in the Transmission SPV and technical assistance and $30m available for an IDA PRG.

As the north-south transmission backbone system and related generation projects are planned to be implemented under project financing structures, the developers have indicated that additional Bank support through a PRG in support of commercial debt required to finance the projects may be required. Once the developers have finalized their approach towards financing of the transmission and generation projects for stage 1 and a request for PRG is received (from GOM) the team will update the PCN and circulate for management concurrence. In view of the possible IDA constraints, the team also proposes to explore the possibility of IBRD enclave PRG in support of these operations.

Thorough due diligence on both the transmission and generation aspects with respect to financing approach and risks, and ownership structure and participants will be undertaken at an early stage of preparation, to ensure that risks are fully understood and that the proposed

structure and ownership are acceptable. Due diligence regarding the fuel supply agreement and power supply agreement(s) will be undertaken as these agreements are prepared. The due diligence assessment would be fully presented and discussed at the decision meeting.

D. Project location (if known)

The transmission project would connect with the existing EDM and HCB transmission system in Tete Province (Matambo and /or Songo substations or potentially a new substation located nearby) to the Motraco HVAC transmission corridor which connects Maputo / Matola with Swaziland and Apollo substation in South Africa. The technical design of the overall north-south transmission backbone system (i.e. combination of AC and DC and number of circuits of each) will be decided following completion of the on-going least cost integrated transmission backbone system study. Following a decision on the overall design, a feasibility study and ESIA for the first stage of the transmission backbone system would be undertaken, anticipated to be concluded by July 2009. Earlier studies have considered the routing options for a transmission backbone corridor. However the final decision on the corridor would only be possible following completion of the feasibility study. The exact right of way, needed to complete the resettlement action plan, would be identified as part of the detailed design phase, following the feasibility study.

E. Borrower's Institutional Capacity for Safeguard Policies [from PCN]

EDM is in the process of implementing another transmission investment project with World Bank financing and has developed some institutional capacity in this area. However it is anticipated that capacity building with respect to safeguard issues would be incorporated under the project.

The first stage (as well as subsequent stages) of the north-south transmission backbone system will be implemented by the to-be-established Transmission SPV, which will be jointly owned by EDM, the generation developers (including large international companies such as AES and Camargo Correa with extensive experience in developing power projects and undertaking major civil works - including hydropower dam - projects respectively) and potentially other public and / or private participants. In establishing the Transmission SPV it will be essential to ensure that there is adequate capacity for handling the environmental, social and resettlement aspects of the proposed project.

EDM has provided a draft TOR for the Environmental and Social Impact Assessment (ESIA) for the proposed Transmission Backbone project for comment from the World Bank. The World Bank will also provide comments on the TOR for the Strategic Environmental Assessment (SEA) and respective Mitigation / Management Plans for the North-South Transmission Backbone project. The World Bank will have the opportunity to comment on drafts of the reports. The studies will be in accordance with Mozambican law and with the environmental, social and safeguard policies and environmental, health and safety guidelines (including on consultation and disclosure) of the development partners contributing to the financing the project, including the World Bank. The studies will also be in accordance with the Equator Principles to which most of the larger private financiers in the world adhere at present.

For the Transmission Backbone project, as per OP/BP 4.12, a Resettlement Action Plan (RAP) will be prepared in accordance with the World Bank's requirements and procedures. It is likely that the exact location of the right of way may not be known at appraisal. In this case a Resettlement Policy Framework (RPF) will be prepared and made available according to the World Bank guidelines on disclosure . In this case the RAP would be prepared during project preparation. Proposed mechanisms will be discussed and agreed with the World Bank. The Transmission Backbone project-specific ESIA study, the Strategic Environmental Assessment, and either the RPF or RAP as appropriate will be prepared and disclosed before appraisal and 120 days before presentation to the World Bank Board.

The first generation project(s) to come on line will be considered associated facility(ies) for the first stage of the North-South Transmission Backbone System. The expected schedule for the development of the generation projects is under review and is subject to change during project preparation based on technical, commercial or financing considerations. Currently the Moatize coal-fired or the Mphanda Nkuwa hydropower generation projects are likely candidates to anchor the first stage of the transmission backbone. As the generation schedule and the phasing of the transmission system development are firmed up, it will be determined which of these projects would be considered associated with the first stage of the Transmission Backbone project. In addition to a SEA and project-specific ESIA for the Transmission Backbone Project (Category A), an ESIA and Resettlement Action Plan for any associated generation project(s) would be prepared and disclosed before appraisal and 120 days before presentation of the project to the World Bank Board. With regard to the Moatize coal-based generation project, the coal would be from a coal mine for which the concession has already been awarded to a private company. Development and operation of the mine is designed for the export of high grade coal, rather than for the development of the proposed power plant. Hence the coal mining development is not considered associated with the transmission backbone project.

Specifically in relation to the planned Mphanda Nkuwa hydropower development on the Zambezi River, a multi-donor financed study: The Zambezi basin multi-sector Investment Opportunity Analysis is already underway. The overall objective of the study is to provide decision support guidance to the main stakeholders responsible for managing and developing water and related resources in the Zambezi River basin. This guidance will be based on a multi-sectoral economic analysis of growth-focused development options and investment potential from both a basin and country perspective for the eight riparian countries. The study will identify the main characteristics of existing and planned infrastructure projects (e.g. dams, irrigation, perimeters, etc.) and will draw from the analysis the main diagnostic elements, problems and constraints of cross-cutting issues (e.g. environmental, socioeconomic, institutional, etc.). The results will be summarized in a "detailed socioeconomic assessment". The findings and recommendations of the study will be incorporated in the safeguards assessment of the Mphanda Nkuwa generation project as appropriate.

F. Environmental and Social Safeguards Specialists

Mr Mohamed Arbi Ben-Achour (AFTCS)
Mr Robert A. Robelus (AFTQK)

II. SAFEGUARD POLICIES THAT MIGHT APPLY

Safeguard Policies Triggered	Yes	No	TBD
Environmental Assessment (OP/BP 4.01)	X		
To be determined by the ESIA			
Natural Habitats (OP/BP 4.04)	X		
To be determined by the ESIA			
Forests (OP/BP 4.36)	X		
To be determined by the ESIA			
Pest Management (OP 4.09)		X	
Physical Cultural Resources (OP/BP 4.11)			X
To be determined by the ESIA			
Indigenous Peoples (OP/BP 4.10)		X	
Involuntary Resettlement (OP/BP 4.12)	X		
To be determined by the ESIA			
Safety of Dams (OP/BP 4.37)			X
If it is determined that the Mphanda Nkuwa hydropower generation project is an "associated" project for the first stage of the Transmission Backbone project, then this OP/BP would be triggered.			
Projects on International Waterways (OP/BP 7.50)			X
If it is determined that the Mphanda Nkuwa hydropower generation project is an "associated" project for the first stage of the Transmission Backbone project, then this OP/BP would be triggered.			
Projects in Disputed Areas (OP/BP 7.60)		X	

Environmental Category: A - Full Assessment

III. SAFEGUARD PREPARATION PLAN

A. Target date for the Quality Enhancement Review (QER), at which time the PAD-stage ISDS would be prepared: 11/28/2008

B. For simple projects that will not require a QER, the target date for preparing the PAD-stage ISDS: N/A

C. Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing[1] should be specified in the PAD-stage ISDS.

The draft TOR for the ESIA for the Transmission Backbone Project has been prepared by EDM. The TORs for the SEA and the RPF are under preparation. It is expected that the Request for Proposals for the safeguard studies will be launched in the weeks to come. The ESIA(s) and RAP(s) for the associated projects will be undertaken by the Generation Project Developers and are currently at various stages of preparation. an ESIA and Resettlement

[1] 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.

Action Plan for any associated generation project(s) would be prepared and disclosed before appraisal and 120 days before presentation of the project to the World Bank Board.

IV. APPROVALS

Signed and submitted by:		
Task Team Leader:	**Ms Wendy E. Hughes**	**09/05/2008**
Approved by:		
Regional Safeguards Coordinator:	**Mr Warren Waters**	**09/12/2008**
Comments:		
Sector Manager:	**Mr Subramaniam V. Iyer**	**09/11/2008**
Comments:		