African Union | AUDA-NEPAD AFRICAN UNION DEVELOPMENT AGENCY | GOVERNO DE ANGOLA

III LUANDA FINANCING SUMMIT FOR AFRICA'S INFRASTRUCTURE DEVELOPMENT

Investment Prospectus – Isang (Botswana) – Mahikeng (South Africa) 400 kV Transmission Line

PROJECT SUMMARY	
Project Name	Isang (Botswana) – Mahikeng (South Africa) 400 kV Transmission Line
Location	Southern Africa: Botswana (Isang Substation, Gaborone) to South Africa (Mahikeng Substation) | Cross-border transmission infrastructure connecting Botswana to South Africa within Southern African Power Pool (SAPP) requiring bilateral coordination and harmonized power sector regulatory frameworks, establishing alternative transmission corridor between strong and weak SAPP systems
Sector	Energy
Sub-Sector	Transmission Infrastructure | High-voltage transmission infrastructure establishing 400 kV interconnection with branching architecture (Mahikeng-Pluto and Mahikeng-Mookodi lines) for regional electricity trade, SAPP power pool integration, and large-scale renewable energy projects integration in Botswana
Development Stage	S3A: Structuring | Structuring stage (S3A) with ESIA and feasibility studies completed, requiring finalization of project structuring and transaction support for investment readiness
Project Sponsor	To be confirmed during structuring phase | Project sponsorship to be confirmed during structuring phase with expected bilateral support from Botswana Power Corporation (BPC) and Eskom South Africa, coordination through SAPP Project Accelerator Unit (PAU)
Project Cost	Estimated CAPEX is US$114 million | Total capital expenditure estimated at USD 114 million for 211 km 400 kV

	transmission line connecting Isang Substation (Gaborone, Botswana) to Mahikeng Substation (South Africa) with branches to Mahikeng-Pluto and Mahikeng-Mookodi
Funding Requirement	Estimated CAPEX is US$114 million | Total funding requirement of USD 114 million for complete 400 kV transmission line infrastructure including main interconnector and branching lines
Project Preparation Status	ESIA and feasibility studies were completed | Project preparation advanced stage with Environmental and Social Impact Assessment (ESIA) and feasibility studies completed, requiring progression to financial structuring and transaction support
Expected Commercial Operation Date	Expected CoD: 2030 | Expected Commercial Operation Date in 2030 subject to completion of structuring phase, financing mobilization, and construction of transmission infrastructure

FINANCIAL OVERVIEW	
Total Project Cost	Estimated CAPEX is US$114 million | Total capital expenditure estimated at USD 114 million for 211 km 400 kV transmission line infrastructure connecting Isang Substation (Gaborone, Botswana) to Mahikeng Substation (South Africa) with branching architecture to Mahikeng-Pluto and Mahikeng-Mookodi lines
Capital Structure	To be determined during structuring phase | Capital structure and financing arrangements to be determined during S3A structuring phase with expected blended financing combining development finance institutions support (KfW, DBSA, EU, AIIB) and government contributions from Botswana and South Africa
Financial Metrics	IRR of 16% | Financial performance indicators with projected Internal Rate of Return (IRR) of 16% demonstrating commercial viability, additional metrics (payback period, DSCR) to be confirmed during structuring phase aligned with regional transmission infrastructure investment standards
Revenue Model	To be determined during structuring phase | Revenue generation model to be defined during structuring phase with expected wheeling charges for cross-border electricity trade between South Africa and Botswana, capacity charges from SAPP power pool, bilateral power purchase agreements, and renewable energy off-take arrangements supporting Botswana Mega Solar Project
Market Demand	Promote electricity trade between South Africa and Botswana and facilitate the integration of large renewable

	energy projects in Botswana. Aligned with SAPP initiatives to encourage the integration of large solar PV projects in Namibia and Botswana. The Interconnector may also facilitate the exchange of coal-based electricity due to the generation portfolios of both Botswana and South Africa. | Strong regional market drivers including promotion of electricity trade between South Africa and Botswana, facilitation of large-scale renewable energy projects integration in Botswana (Botswana Mega Solar Project), alignment with SAPP initiatives for large solar PV projects integration in Namibia and Botswana, potential facilitation of coal-based electricity exchange leveraging generation portfolios of both countries

SUSTAINABILITY AND IMPACT	
Social Impact	To be assessed during structuring phase | Social impact assessment to be conducted during structuring phase with expected benefits including improved electricity access, enhanced regional economic integration, job creation during construction and operation, strengthened cross-border cooperation, support for renewable energy development, and improved energy reliability supporting economic development
Environmental Impact	ESIA completed | Environmental and Social Impact Assessment (ESIA) completed with environmental considerations addressing compliance with regional environmental regulations and international safeguards frameworks for 211 km transmission line route
Strategic Importance	Establish an alternative transmission corridor between Botswana and South Africa and improve the SAPP stability between strong and weak systems. Promote electricity trade between South Africa and Botswana and facilitate the integration of large renewable energy projects in Botswana. Aligned with SAPP initiatives to encourage the integration of large solar PV projects in Namibia and Botswana. | Critical strategic importance for SAPP regional power pool integration through establishment of alternative transmission corridor between Botswana and South Africa, improved SAPP power pool stability between strong and weak systems, promoted electricity trade, facilitated large-scale renewable energy projects integration in Botswana (Botswana Mega Solar Project), alignment with SAPP initiatives for solar PV projects integration, contribution to regional energy transition and decarbonization
SDG and Agenda 2063 Alignment	To be detailed during structuring phase | Alignment with Sustainable Development Goal 7 (Affordable and Clean

	Energy through renewable energy integration), SDG 9 (Industry, Innovation, and Infrastructure), SDG 13 (Climate Action through renewable energy facilitation), SDG 17 (Partnerships for the Goals), African Union Agenda 2063 Aspiration 1 (Prosperous Africa) and Goal 10 (World-class Infrastructure), SAPP regional power pool development plans supporting regional integration and renewable energy access

TECHNICAL DETAILS	
Project Description	The 211 km 400 kV transmission line will connect Isang Substation (Gaborone) in Botswana to Mahikeng Substation (Mahikeng) in South Africa. The Isang–Mahikeng 400 kV line then branches off at Mahikeng into two branches: Mahikeng – Pluto and Mahikeng – Mookodi 400 kV lines. | Cross-border transmission infrastructure comprising 211 km 400 kV transmission line connecting Isang Substation (Gaborone, Botswana) to Mahikeng Substation (South Africa) with branching architecture at Mahikeng node dividing into Mahikeng-Pluto and Mahikeng-Mookodi 400 kV lines, establishing alternative transmission corridor for electricity trade and renewable energy integration
Technology & Design	400 kV transmission line with branching architecture | Advanced technical specifications including 400 kV transmission line technology, branching architecture at Mahikeng substation enabling multiple connection points (Pluto, Mookodi), compliance with SAPP regional transmission system standards and interconnection codes, substation infrastructure at Isang (Botswana) and Mahikeng (South Africa), technical specifications confirmed through completed feasibility studies
Capacity/Size	211 km main interconnector with branches | Infrastructure capacity including 211 km main 400 kV interconnector from Isang (Gaborone) to Mahikeng plus branching lines to Mahikeng-Pluto and Mahikeng-Mookodi, transmission capacity and power transfer capability confirmed through feasibility studies
Construction Timeline	Expected CoD: 2030 | Construction timeline with expected Commercial Operation Date in 2030 subject to completion of structuring phase (2025-2026), financing mobilization (2026-2027), and construction of main interconnector and branching lines (2027-2030)
Route Optimization	ESIA and feasibility studies were completed | Comprehensive route optimization completed through Environmental and Social Impact Assessment (ESIA) and

	feasibility studies (Source: Aurecon BOSA Transmission Project – Transaction Advisory Services Report, 2016)
Renewable Energy Integration	Facilitate the integration of large renewable energy projects in Botswana | Infrastructure designed to facilitate integration of large-scale renewable energy projects in Botswana including Botswana Mega Solar Project, supporting SAPP regional initiatives for solar PV projects development

RISK MANAGEMENT	
Risk Assessment	To be detailed during structuring phase | Comprehensive risk management to be detailed during structuring phase including implementation risk mitigation, financial risk mitigation addressing financing mobilization for USD 114 million CAPEX, regulatory risk mitigation for bilateral coordination between Botswana and South Africa, technical risk mitigation for construction and integration with existing power systems
Regulatory Risks	To be addressed during structuring phase | Regulatory challenges to be addressed during structuring phase through engagement of governmental bodies of Botswana and South Africa for finalization of institutional frameworks (bilateral agreements), regulatory frameworks (cross-border wheeling tariffs, interconnection agreements), and financing frameworks (cost-sharing arrangements, revenue allocation mechanisms)
Environmental and Social Safeguards	ESIA completed | Environmental and Social Impact Assessment (ESIA) completed addressing compliance with Botswana and South Africa environmental regulations, international safeguards frameworks (KfW, DBSA, EU, AIIB standards), community engagement requirements, and sustainable transmission infrastructure development practices for 211 km transmission line route

KEY STAKEHOLDERS	
Sponsors	To be confirmed (expected: Botswana Power Corporation, Eskom South Africa) | Project sponsorship to be confirmed during structuring phase with expected bilateral support from Botswana Power Corporation (BPC) and Eskom South Africa, coordination through SAPP Project Accelerator Unit (PAU)
Current Partners	SAPP, KfW, DBSA | Current project partners including Southern African Power Pool (SAPP) for regional coordination, KfW (German Development Bank) for project

	preparation support, Development Bank of Southern Africa (DBSA) for financing support
Potential Investors	KfW, DBSA, EU, AIIB | Potential investor base including KfW (German Development Bank), Development Bank of Southern Africa (DBSA), European Union development finance facilities, Asian Infrastructure Investment Bank (AIIB), and additional development finance institutions for blended financing structure
Contractors & Operators	To be selected via international tender | Technical contractors and operational partners to be identified through international competitive tendering process following completion of structuring phase, with expected operation by Botswana Power Corporation and Eskom South Africa under bilateral operation and maintenance agreement
Legal and Financial Advisors	To be appointed during structuring phase | Professional advisory services to be engaged during structuring phase to support bilateral contractual structuring, cross-border regulatory compliance, financing negotiations, and transaction advisory (Source: Aurecon BOSA Transmission Project – Transaction Advisory Services Report, 2016 provides baseline)
SAPP Coordination	SAPP Project Accelerator Unit (PAU) | Project structuring and transaction support activities led by Southern African Power Pool (SAPP) Project Accelerator Unit (PAU) for regional coordination and implementation facilitation

WAY FORWARD	
Investment Ask	Estimated CAPEX is US$114 million | Investment requirement of USD 114 million total capital expenditure for 211 km 400 kV transmission line infrastructure including main interconnector and branching lines
Next Steps	The project needs expediting to build a strong case for the Botswana Mega Solar Project. Project structuring and transaction support are required, and these activities are being led by the SAPP PAU. | Strategic implementation pathway including expediting project development to build strong case for Botswana Mega Solar Project, project structuring and transaction support led by SAPP Project Accelerator Unit (PAU), engagement of governmental bodies of Botswana and South Africa for finalization of institutional, regulatory, and financing frameworks, mobilization of development finance institutions (KfW, DBSA, EU, AIIB) for financing support

Implementation Timeline	2025-2030 | Systematic implementation timeline with structuring phase completion led by SAPP PAU (2025-2026), financing mobilization (2026-2027), construction of main interconnector and branching lines (2027-2030), and expected Commercial Operation Date in 2030
Linkage to Renewable Energy	Botswana Mega Solar Project | Critical linkage to Botswana Mega Solar Project requiring expedited transmission infrastructure development to enable large-scale renewable energy integration aligned with SAPP regional solar PV initiatives
Contact Information	AUDA-NEPAD (Infrastructure and Energy Division) / SAPP Project Accelerator Unit (PAU) / Botswana Power Corporation / Eskom South Africa