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

III LUANDA FINANCING SUMMIT FOR AFRICA'S INFRASTRUCTURE DEVELOPMENT

Investment Prospectus – Mozambique-Zambia Interconnection 400 kV Transmission Line

PROJECT SUMMARY	
Project Name	Mozambique-Zambia Interconnection 400 kV Transmission Line
Location	Eastern and Southern Africa: Mozambique (Matambo substation) to Zambia (Chipata West substation in Eastern Zambia) | Cross-border transmission infrastructure connecting Mozambique to Zambia within Southern African Power Pool (SAPP) requiring bilateral coordination and harmonized power sector regulatory frameworks, leveraging Mozambique's huge generation potential based on diversified resources (gas, coal, hydro, renewables)
Sector	Energy
Sub-Sector	Transmission Infrastructure | High-voltage transmission infrastructure establishing 400 kV interconnection for regional electricity trade and power pool integration within SAPP, enabling Mozambique's positioning as net electricity exporter in the long run
Development Stage	S2B: Feasibility | Feasibility stage (S2B) with outcomes expected from pending feasibility studies, requiring finalization of institutional, regulatory, and financing frameworks for investment readiness
Project Sponsor	Electricidade de Mozambique (EDM) and ZESCO Zambia | Bilateral sponsorship through Electricidade de Mozambique (EDM) and ZESCO Limited (Zambia Electricity Supply Corporation) with government support from Mozambique and Zambia for cross-border transmission infrastructure implementation

Project Cost	Total CAPEX US$ 411 million | Total capital expenditure of USD 411 million for approximately 2 x 380 km long 400 kV transmission lines from Matambo substation (Mozambique) to Chipata West substation (Eastern Zambia)
Funding Requirement	Total CAPEX US$ 411 million | Total funding requirement of USD 411 million for complete 400 kV transmission line infrastructure across Mozambique and Zambia segments
Funding Gap	US$82.2 million (20% of CAPEX) | Funding gap of USD 82.2 million representing 20% of total CAPEX for project development and construction
Expected Commercial Operation Date	Expected CoD: 2028 | Expected Commercial Operation Date in 2028 subject to completion of feasibility studies, financing mobilization, and construction of both Mozambique and Zambia transmission segments

FINANCIAL OVERVIEW	
Total Project Cost	Total CAPEX US$ 411 million | Total capital expenditure of USD 411 million for approximately 2 x 380 km long 400 kV transmission lines infrastructure connecting Matambo substation (Mozambique) to Chipata West substation (Eastern Zambia) with USD 82.2 million funding gap (20% of CAPEX) for project development and construction
Capital Structure	To be determined during feasibility studies | Capital structure and financing arrangements to be determined during S2B feasibility studies with expected blended financing combining development finance institutions support (AfDB, World Bank), multilateral support (NEPAD-IPPF), and government contributions from Mozambique and Zambia
Financial Metrics	Outcomes expected from pending feasibility studies | Financial performance indicators including Internal Rate of Return (IRR), payback period, and Debt Service Coverage Ratio (DSCR) to be determined following completion of pending feasibility studies aligned with regional transmission infrastructure investment standards
Revenue Model	To be determined during feasibility studies | Revenue generation model to be defined during feasibility studies with expected wheeling charges for cross-border electricity trade from Mozambique (net exporter) to Zambia (importer), capacity charges from SAPP power pool, and bilateral power purchase agreements between EDM and ZESCO utilities
Market Demand	Enhance the security of electricity supply to Zambia, particularly in light of the increasing frequency of droughts due to climate change. Facilitate cross-border electricity

	trade, allowing Zambia to import power from Mozambique. This will significantly mitigate the impacts of power deficits and improve overall energy reliability in the region. Mozambique has huge generation potential based on diversified resources such as gas, coal, hydro and other renewables. Mozambique is therefore poised to be a net exporter of electricity in the long run. | Strong regional market drivers including enhanced electricity supply security for Zambia addressing increasing drought frequency from climate change, facilitation of cross-border electricity trade enabling Zambia power imports from Mozambique, significant mitigation of power deficits and improved regional energy reliability, leveraging Mozambique's huge generation potential from diversified resources (gas, coal, hydro, renewables) positioning country as net electricity exporter in long run

SUSTAINABILITY AND IMPACT	
Social Impact	To be assessed during feasibility studies | Social impact assessment to be conducted during feasibility studies with expected benefits including enhanced electricity supply security for Zambia, improved regional economic integration, job creation during construction and operation, strengthened cross-border cooperation, mitigation of power deficit impacts, and improved energy reliability supporting economic development
Environmental Impact	To be determined during feasibility studies | Environmental and Social Impact Assessment (ESIA) to be conducted during feasibility studies addressing compliance with regional environmental regulations and international safeguards frameworks, with environmental considerations for approximately 760 km transmission line route optimization
Strategic Importance	Enhance the security of electricity supply to Zambia, particularly in light of the increasing frequency of droughts due to climate change. Establish direct interconnection facilitating cross-border electricity trade, allowing Zambia to import power from Mozambique. Significantly mitigate the impacts of power deficits and improve overall energy reliability in the region. Leverage Mozambique's huge generation potential based on diversified resources (gas, coal, hydro, renewables) for regional supply. | Critical strategic importance for SAPP regional power pool integration through direct interconnection between Mozambique (net exporter) and Zambia (importer), enhanced electricity supply security for Zambia addressing climate change-induced drought impacts, facilitated cross-border electricity trade, significant mitigation of power

	deficits, improved regional energy reliability, leveraging Mozambique's diversified generation potential (gas, coal, hydro, renewables) for regional energy security
SDG and Agenda 2063 Alignment	To be detailed during feasibility studies | Alignment with Sustainable Development Goal 7 (Affordable and Clean Energy), SDG 9 (Industry, Innovation, and Infrastructure), SDG 13 (Climate Action through climate resilience and renewable energy integration), 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 energy access

TECHNICAL DETAILS	
Project Description	Approximately 2 x 380km long 400kV lines from Matambo substation in Mozambique to Chipata West substation in Eastern Zambia. The project aims to enhance the security of electricity supply to Zambia, particularly in light of the increasing frequency of droughts due to climate change. By establishing a direct interconnection between Mozambique and Zambia, the initiative will facilitate cross-border electricity trade, allowing Zambia to import power from Mozambique. | Cross-border transmission infrastructure comprising approximately 2 x 380 km long 400 kV transmission lines (total approximately 760 km) connecting Matambo substation (Mozambique) to Chipata West substation (Eastern Zambia), establishing direct interconnection for cross-border electricity trade enabling Zambia power imports from Mozambique to enhance supply security addressing climate change-induced drought impacts
Technology & Design	400kV transmission lines | Advanced technical specifications including 400 kV transmission line technology, compliance with SAPP regional transmission system standards and interconnection codes, substation infrastructure at Matambo (Mozambique) and Chipata West (Zambia), technical specifications to be confirmed during feasibility studies
Capacity/Size	Approximately 2 x 380 km long 400kV lines (total approximately 760 km) | Infrastructure capacity including approximately 760 km total transmission line length comprising two parallel 380 km 400 kV lines from Matambo (Mozambique) to Chipata West (Eastern Zambia), transmission capacity and power transfer capability to be confirmed during feasibility studies
Construction Timeline	Expected CoD: 2028 | Construction timeline with expected Commercial Operation Date in 2028 subject to completion of feasibility studies (2025-2026), financing mobilization (2026),

	and phased construction of Mozambique segment and Zambia segment (2026-2028)
Route	Matambo substation (Mozambique) to Chipata West substation (Eastern Zambia) | Route alignment from Matambo substation in Mozambique to Chipata West substation in Eastern Zambia with detailed route optimization to be confirmed during feasibility studies (Source: Feasibility Studies for Mozambique-Zambia Interconnection Project 2022)

RISK MANAGEMENT	
Risk Assessment	The project depends on the completion of both sections in Mozambique and Zambia. Some risks include financial uncertainties related to energy demand as well as regulatory changes that could impact implementation. Technical challenges may arise during construction and integration with existing systems, while environmental and social risks include habitat degradation and health impacts on local communities due to workforce influx. | Comprehensive risk management including implementation risk mitigation addressing dependency on completion of both Mozambique and Zambia transmission segments, financial risk mitigation addressing energy demand uncertainties and financing mobilization for USD 82.2 million funding gap, regulatory risk mitigation addressing potential regulatory changes impacting implementation, technical risk mitigation for construction challenges and integration with existing power systems, environmental and social risk mitigation addressing habitat degradation and health impacts on local communities from workforce influx
Regulatory Risks	Engagement of governmental bodies of Mozambique and Zambia to finalise institutional, regulatory, and financing frameworks | Regulatory challenges addressed through engagement of governmental bodies of Mozambique and Zambia for finalization of institutional frameworks (bilateral agreements), regulatory frameworks (cross-border wheeling tariffs, interconnection agreements), and financing frameworks (cost-sharing arrangements, revenue allocation mechanisms) during feasibility studies
Environmental and Social Safeguards	Environmental and social risks include habitat degradation and health impacts on local communities due to workforce influx. | Environmental and Social Impact Assessment (ESIA) to be conducted during feasibility studies addressing mitigation of habitat degradation risks for approximately 760 km transmission line route, management of health impacts on local communities from workforce influx, compliance with

	Mozambique and Zambia environmental regulations, international safeguards frameworks (AfDB, World Bank standards), community engagement requirements, and sustainable transmission infrastructure development practices

KEY STAKEHOLDERS	
Sponsors	Electricidade de Mozambique (EDM) and ZESCO Zambia | Bilateral sponsorship through Electricidade de Mozambique (EDM) and ZESCO Limited (Zambia Electricity Supply Corporation) with government support from Ministries of Energy in Mozambique and Zambia for cross-border transmission infrastructure implementation
Current Partners	World Bank / NEPAD-IPPF, Government of Mozambique and Zambia | Current project partners including World Bank and NEPAD Infrastructure Project Preparation Facility (NEPAD-IPPF) for project preparation support, Government of Mozambique and Government of Zambia for institutional coordination and regulatory framework development
Potential Investors	AfDB, WB | Potential investor base including African Development Bank (AfDB), World Bank (WB), and additional development finance institutions for blended financing structure supporting cross-border transmission infrastructure development
Contractors & Operators	To be selected via international tender | Technical contractors and operational partners to be identified through international competitive tendering process following completion of feasibility studies, with expected operation by EDM and ZESCO under bilateral operation and maintenance agreement
Legal and Financial Advisors	To be appointed during feasibility studies | Professional advisory services to be engaged during feasibility studies to support bilateral contractual structuring, cross-border regulatory compliance, financing negotiations, and transaction advisory for Mozambique-Zambia transmission interconnector project

WAY FORWARD	
Investment Ask	Total CAPEX US$ 411 million, Funding Gap US$82.2 million (20% of CAPEX) | Investment requirement of USD 411 million total capital expenditure including USD 82.2 million funding gap (20% of CAPEX) for project development and construction

Next Steps	Engagement of governmental bodies of Mozambique and Zambia to finalise institutional, regulatory, and financing frameworks, and scouting development finance institutions to secure funds for the Mozambique and Zambia section | Strategic implementation pathway including engagement of governmental bodies of Mozambique and Zambia for finalization of institutional, regulatory, and financing frameworks, scouting development finance institutions (AfDB, World Bank) to secure USD 82.2 million funding gap, leveraging support from NEPAD-IPPF, completion of pending feasibility studies for financial and technical finalization
Implementation Timeline	2025-2028 | Systematic implementation timeline with feasibility studies completion (2025-2026), financing mobilization (2026), construction of Mozambique and Zambia segments (2026-2028), and expected Commercial Operation Date in 2028
Contact Information	AUDA-NEPAD (Infrastructure and Energy Division) / EDM Mozambique / ZESCO Zambia