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

III LUANDA FINANCING SUMMIT FOR AFRICA'S INFRASTRUCTURE DEVELOPMENT

Investment Prospectus – Egypt (Saloum) – Libya (Tobruk) Interconnector

PROJECT SUMMARY	
Project Name	Egypt (Saloum) – Libya (Tobruk) 500/400 kV Interconnector
Location	Saloum 500 kV substation, Egypt, to Tobruk 400 kV substation, Libya | Strategic North Africa transmission corridor linking Egypt's northwest grid to Libya's eastern system, establishing critical Egypt-Libya connectivity within ELTAM (Egypt-Libya-Tunisia-Algeria-Morocco) Transmission Interconnection framework and North-South Power Transmission Corridor development
Sector	Energy
Sub-Sector	Transmission Infrastructure | 500 kV HVAC transmission interconnector upgrade from existing 220 kV infrastructure, supporting Egypt energy hub strategy, Libya eastern power shortage mitigation, and North African regional electricity market integration within EAPP coordination framework
Development Stage	S1 (Project Definition) - planning phases for expansion | S1 project definition stage with comprehensive technical feasibility study and Environmental and Social Impact Assessment requirements for brownfield upgrade from 220 kV to 500 kV transmission technology
Project Sponsor	Government of Egypt, through the Ministry of Electricity and Renewable Energy (MoERE), Egyptian Electricity Holding Company (EEHC) and Egyptian Electricity Transmission Company (EETC), Egypt, Government of Libya, through the Ministry of Electricity and Renewable Energy (MoERE), and General Electricity Company of Libya (GECOL) | Bilateral government sponsorship representing Egypt-Libya strategic energy cooperation within EAPP regional coordination

	framework and COMELEC (Maghreb Electricity Committee) integration objectives
Project Cost	Approximately USD 300 Million for Transmission Lines – Converter Station – Right of Way – Extension Bays (2021 prices – need to be revised) | USD 300 Million estimated CAPEX (2021 prices) requiring comprehensive cost revision for 2025 pricing, including 165 km new 500 kV double circuit line, 500/400 kV converter transformation at Tobruk substation, and 200 km Marsa Matrouh to Saloum extension infrastructure
Funding Requirement	No specific commitments have been made by potential financial partners towards the CAPEX | Funding requirements to be comprehensively assessed during feasibility studies with expected bilateral government financing coordination, blended financing mechanisms for cross-border transmission infrastructure, and political risk mitigation strategies addressing Libya instability challenges
Project Preparation Status	The project is in the S1 (Project Definition) maturity stage | S1 project preparation requiring pre-feasibility studies to upgrade from 220 kV to 500 kV operation, detailed feasibility study conduct, Environmental and Social Impact Assessment for arid/semi-arid zones routing, AUDA-NEPAD and EAPP coordination mandate establishment
Expected Commercial Operation Date	To be determined during feasibility studies | Commercial operation date to be established through comprehensive feasibility study conclusions, with phased development approach considering Egypt energy hub strategy implementation timeline and Libya eastern power shortage mitigation urgency

FINANCIAL OVERVIEW	
Total Project Cost	Approximately USD 300 Million (2021 prices – need to be revised) | USD 300 Million estimated CAPEX requiring comprehensive cost revision from 2021 to 2025 pricing for 165 km new 500 kV double circuit transmission line, 500/400 kV converter station at Tobruk, Saloum substation upgrade to 500 kV, and 200 km Marsa Matrouh to Saloum corridor completion
Capital Structure	To be determined during feasibility studies with bilateral government financing coordination, blended financing mechanisms combining development finance institution support, political risk mitigation instruments addressing Libya instability, and innovative brownfield upgrade financing approaches supporting ELTAM framework implementation

Financial Metrics	To be comprehensively assessed during feasibility studies including Egypt export revenue optimization from 15 GW surplus generation capacity, Libya load shedding reduction economic benefits through eastern power shortage mitigation, cross-border electricity trade financial viability analysis, and investment recovery projections based on regional market development potential
Revenue Model	Electricity trade between Egypt and Libya, wheeling charges for cross-border transmission | Revenue generation through Egypt surplus energy monetization (15 GW recent capacity addition), Libya cost reduction from expensive liquid fuel replacement in ageing power plants, cross-border transmission wheeling charges, Egypt energy hub strategy implementation revenues, North African regional electricity market participation
Market Demand	Egypt has a significant surplus, having added 15 GW of generation in recent years, and is positioned to export power to its neighbours. The interconnector will address power shortages in eastern Libya | Exceptional market demand driven by Egypt 15 GW generation surplus requiring export optimization and Libya eastern power shortages creating import demand, enhanced by Egypt energy hub regional strategy, Libya ageing power plants replacement needs, ELTAM framework regional electricity market development, North-South Power Transmission Corridor integration requirements

SUSTAINABILITY AND IMPACT	
Social Impact	Transformational social impact through Libya eastern region load shedding reduction improving industrial, commercial and residential customer service quality, Egypt export revenue generation maximizing returns on 15 GW power investment, enhanced economic development through stable electricity supply, job creation during construction and operation phases, improved energy access supporting socio-economic development across both countries
Environmental Impact	The environmental impact primarily involves potential disturbances to local ecosystems, especially in arid and semi-arid zones where the transmission line will pass. The construction phase may lead to vegetation clearance and habitat disruption, while the presence of the overhead lines could affect the visual landscape and create electromagnetic field (EMF) exposure concerns | Comprehensive ESIA required addressing arid and semi-arid zones environmental compliance, route optimization for ecosystem protection, Resettlement Action Plan (RAP) development,

	archaeological sites impact assessment, EMF exposure mitigation, international environmental standards adherence ensuring project adverse effects minimization
Strategic Importance	The project was selected as a priority project in the CMP studies. The interconnector is a critical component of the broader Egypt – Libya – Tunisia – Algeria – Morocco (ELTAM) Transmission Interconnection project, aiming to integrate the power markets of North Africa. The line will link to the Egypt–Sudan interconnector through Egypt's transmission system, an essential component of the North–South Power Transmission Corridor | Exceptional strategic importance as PIDA PAP 2 (2021-2030) priority project establishing Egypt-Libya connectivity within ELTAM framework, North-South Power Transmission Corridor development linking northern African region with Eastern African grid, potential transcontinental interconnection foundation for West Africa (via Algeria) and Europe (across Mediterranean) connections, Maghreb-Mashreq electrical integration enabler
SDG and Agenda 2063 Alignment	Strong alignment with Sustainable Development Goal 7 (Affordable and Clean Energy) through enhanced Egypt-Libya cross-border electricity trade and clean energy access improvement, SDG 9 (Industry, Innovation, Infrastructure) supporting 500 kV HVAC transmission technology and North African regional connectivity enhancement, African Union Agenda 2063 Goal 10 (World-class Infrastructure) advancing continental infrastructure integration through ELTAM framework and North-South Power Transmission Corridor development

TECHNICAL DETAILS	
Project Description	A new 165 km Saloum (Egypt) - Tobruk (Libya) 500 kV double circuit line will be built to enhance capacity, stability and redundancy. A 500 kV double circuit line will be added to run in parallel with the existing 220 kV double circuit line | 500 kV HVAC transmission interconnector upgrade establishing 165 km new double circuit line parallel to existing 220 kV infrastructure operational since May 1998, enhancing capacity from 300 MW to 2 GW (×6 increase), providing enhanced stability and redundancy for Egypt-Libya cross-border electricity trade
Technology & Design	500 kV HVAC transmission technology | Proven 500 kV HVAC transmission technology with double circuit line configuration providing operational redundancy benefits, compliance with EAPP technical coordination frameworks and international transmission standards, robust design

	optimized for arid climate conditions and cross-border operational requirements
Capacity/Size	By adding the new 500 kV circuit, the Saloum – Tobruk exchange capacity is expected to increase to 2 GW, more than six times the current capacity | Massive capacity expansion from current 300 MW (existing 220 kV line since 1998) to 2 GW (new 500 kV infrastructure), representing ×6 capacity increase enabling substantial Egypt surplus export and Libya eastern power shortage mitigation
Construction Timeline	To be determined during comprehensive feasibility studies considering brownfield upgrade complexity, environmental compliance requirements for arid/semi-arid zones routing, Libya political stability factors, and Egypt energy hub strategy implementation priorities
Route Details	165 km new 500 kV double circuit line from Saloum substation (Egypt) to Tobruk substation (Libya) | Strategic 165 km routing from Saloum 500 kV substation (Egypt northwest) to Tobruk 400 kV substation (Libya eastern), with 200 km additional 500 kV line construction from Marsa Matrouh to Saloum completing corridor to Borg El-Arab for comprehensive Egypt 500 kV network integration
Converter Infrastructure	A 500/400 kV converter transformation will be established at the Tobruk substation in Libya, and the Saloum substation in Egypt will be upgraded to 500 kV | Advanced 500/400 kV converter transformation installation at Tobruk substation enabling Libya 400 kV grid integration, Saloum substation upgrade to 500 kV capability, converter technology optimized for bi-directional power flow and operational flexibility
Existing Infrastructure	A 220 kV double circuit overhead line (OHL) connecting Saloum in Egypt to Tobruk in Libya has been in operation since the late 1990s. This line was commissioned in May 1998 and by January 2020, it had increased to about 150 MW and later to 300 MW | Proven operational experience from existing 220 kV double circuit line operational since May 1998 with capacity evolution from initial 100 MW to current 300 MW, providing solid foundation for 500 kV upgrade implementation and bilateral operational coordination between EEHC/EETC (Egypt) and GECOL (Libya)

RISK MANAGEMENT	
Risk Assessment	Although the project enjoys political support in both countries, continued political conflicts and security challenges in Libya may disrupt project construction, operations, or maintenance activities | Key project risks

	including Libya political conflicts and security challenges requiring comprehensive mitigation strategies, Egypt-Libya bilateral coordination optimization, experienced contractor selection with proven cross-border transmission expertise, security protocols development for construction and operational phases
Regulatory Risks	Regulatory risk mitigation requiring Egypt-Libya bilateral regulatory framework harmonization, cross-border transmission tariff coordination, EAPP technical standards compliance, COMELEC (Maghreb Electricity Committee) integration protocols, ELTAM framework regulatory alignment ensuring seamless cross-border operations
Environmental and Social Safeguards	There is also the possibility of impacting archaeological sites and local communities during land acquisition. However, these impacts can be mitigated through route optimisation, pre-construction surveys, the development of a Resettlement Action Plan (RAP), and adherence to international environmental standards | Comprehensive Environmental and Social Impact Assessment critical for arid and semi-arid zones routing optimization, archaeological sites protection through pre-construction surveys, Resettlement Action Plan (RAP) development for community consultation, international environmental standards adherence ensuring project adverse effects minimization while maximizing regional benefits
Implementation Risks	Implementation risk mitigation addressing Libya political instability through experienced contractor procurement with proven security management capabilities, Egypt leadership coordination leveraging EEHC/EETC operational expertise, innovative financing mechanisms including political risk insurance, project phasing optimization to minimize exposure periods

KEY STAKEHOLDERS	
Sponsors	MoERE of Egypt, EEHC and EETC, MoERE of Libya and GECOL | Primary project sponsors including Egypt Ministry of Electricity and Renewable Energy (MoERE), Egyptian Electricity Holding Company (EEHC), Egyptian Electricity Transmission Company (EETC), Libya Ministry of Electricity and Renewable Energy (MoERE), General Electricity Company of Libya (GECOL) representing comprehensive bilateral cooperation framework
Current Partners	Africa Union Development Agency (AUDA-NEPAD) and Eastern Africa Power Pool (EAPP) | Strategic partnership network including AUDA-NEPAD for continental infrastructure development coordination, EAPP (Eastern

	Africa Power Pool) for regional technical coordination, COMELEC (Maghreb Electricity Committee) for North African electricity integration, ELTAM framework implementation support
Potential Investors	Governments of Egypt and Libya | Comprehensive development finance institution engagement expected including African Development Bank and World Bank for brownfield upgrade financing expertise, International Finance Corporation for innovative financing mechanisms, European Investment Bank and European Union for ELTAM framework support, bilateral development finance institutions for Egypt-Libya cooperation funding, political risk insurance providers for Libya instability mitigation
Contractors & Operators	To be selected through competitive international procurement emphasizing 500 kV HVAC transmission expertise and brownfield upgrade experience, converter transformation specialized contractors, operation and maintenance by EEHC/EETC (Egypt) and GECOL (Libya) under bilateral operational coordination agreements
Legal and Financial Advisors	To be appointed during project structuring including legal advisors for Egypt-Libya bilateral framework development and cross-border regulatory compliance, financial advisors for blended financing mechanisms and political risk mitigation, technical advisors for ELTAM integration and North-South Power Transmission Corridor development

WAY FORWARD	
Investment Ask	USD 300 Million revised estimate (from 2021 prices) requiring comprehensive assessment for 165 km new 500 kV double circuit transmission line, 500/400 kV converter transformation at Tobruk substation, Saloum substation upgrade to 500 kV, and 200 km Marsa Matrouh to Saloum corridor completion infrastructure
Next Steps	The AUDA-NEPAD and/or EAPP to engage MoERE / EEHC / EETC of Egypt and MoERE / GECOL of Libya on the next steps to expedite the project development process. Conduct the pre-feasibility studies to upgrade from 220 kV to 500 kV operation, addressing technical, economic, and financial aspects. Conduct a detailed Feasibility Study and Environmental Impact and Social Assessment (ESIA) | Critical immediate actions including AUDA-NEPAD and EAPP coordination mandate establishment with Egypt and Libya governments, comprehensive pre-feasibility studies conduct for 220 kV to 500 kV upgrade analysis, detailed

	feasibility study and ESIA implementation, Egypt-Libya bilateral framework finalization.
Implementation Timeline	To be determined during comprehensive feasibility studies with S1→S2→S3 project maturity progression, considering Egypt energy hub strategy implementation priorities, Libya eastern power shortage mitigation urgency, ELTAM framework development schedule, political stability factors optimization
ELTAM Integration	Strategic integration within Egypt-Libya-Tunisia-Algeria-Morocco (ELTAM) Transmission Interconnection framework, enhancing Maghreb Electricity Committee (COMELEC) operational effectiveness through real-time power exchange facilitation, reserve sharing coordination, and deeper Maghreb region interconnection development toward comprehensive North African electricity market
North-South Corridor Development	Critical component of North-South Power Transmission Corridor connecting northern African region (Libya) with Eastern African grid (Egypt, Sudan and beyond) through Egypt transmission system integration, facilitating greater regional power exchanges and continental electricity network development
Egypt Energy Hub Strategy	Strategic implementation of Egypt energy hub regional strategy leveraging 15 GW recent generation capacity addition for surplus export optimization, alongside existing Jordan and Sudan interconnections and upcoming Saudi Arabia HVDC link, maximizing returns on power investments through regional electricity trade expansion
Libya Energy Security	Critical priority addressing Libya eastern power shortage mitigation through stable electricity imports from Egypt, reducing reliance on costly liquid fuels in ageing power plants, load shedding reduction improving industrial, commercial and residential customer service quality, enhanced energy security supporting economic development
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