

Annex IV: Power Sector Reform Project Logic

A. ESCOM FINANCES

POWER SECTOR REFORM PROJECT LOGIC

Project Objective: (i) to restore the financial health of ESCOM and rebuild ESCOM into a strong, well-governed and managed utility, and (ii) to develop a regulatory environment that supports investment in generation and grid capacity at an affordable cost, with the potential participation of the private sector.

Problem	Activities	PROCESS MILESTONES		Stakeholder	OUTPUTS		OUTCOMES		MEDIUM AND LONG TERM OUTCOMES		COMPACT GOAL				
		Result Statement	Indicators		Result Statement	Indicators	Result Statement	Indicators	Result Statement	Indicators	Result Statement	Indicators			
Power sector is financially and operationally unsustainable due to the weak fiscal position of ESCOM stemming from: a) low billings and collections rate, b) insufficient or incorrect customer information, c) insufficient operational cost data to inform tariff design, d) low cost recovery of tariff and commercially unviable indexation framework, e) high technical and non-technical losses, and f) excessive govt and 3rd-party debt.	Activity 1. ESCOM Financial Turnaround	Development of a new automated financial management system	Value of contract signed	ESCOM	ESCOM's evidence decision making process improved by providing consistent and reliable data/information reporting mechanism.	Financial MIS implemented	Billing and Collections Efficiency	Reduced commercial losses and improve revenue collection	Business sales losses due to power interruptions and quality	Reduced Cost of Doing Business in Malawi	Poverty rate or poverty gap	Poverty rate for female headed households			
			Value of contract disbursed										Number of staff trained in customer data base and financial management system	Non Technical Losses	Back-up diesel generation for firms
			Financial MIS procured												
			Improve financial operating controls												
			Review and re-engineer financial systems and controls regularly												
			Develop Asset Management Policy												
			Implement Network Asset Mapping Project												
			Assist with fixed asset mapping												

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The broader impacts on the power sector of this fiscal position include: a) limited ongoing maintenance to sustain operations of national grid and power plants, b) no major investments made to upgrade or expand the transmission system in recent years, c) delayed replacement and modernization of existing equipment, d) poor reliability and quality of service		Development of a detailed financial plan for fiscal years 2013-2017	Value of contract signed	GoM	Sufficient working and investment capital for ESCOM	Turnaround Facility funded by GoM	Improved fiscal position of ESCOM	Average Cost of Electricity Billed	Reduced cost of energy sector on economy	Hidden costs of electricity		
	Value of contract disbursed		Third-Party Debt Re-structuring									
Detailed Financial Plan completed	Debt to GoM is cleared	More reliable TAF number for GOM contribution in the annual budget.										
		Quarterly update of Financial Plan		ESCOM	ESCOM's decision making process improved by providing consistent and reliable management accounts for ESCOM's financial decision-making	Better tracking of TAF expenditures by ESCOM.		Debt Equity Ratio	Improved Electricity Access and Availability for the Malawian people and businesses	Number of customers connected to the grid		
	Activity 2. Tariff Reform	Strengthening ESCOM's ability to submit more accurate tariff applications, enabling it to recover costs,	Value of contract signed	ESCOM	Improved ability by ESCOM to recover costs	Tariff application that recovers ESCOM's cost of service and supports service improvements		Acid or Quick Test		Electric Power Consumption per capita	Economic Growth	Annual real GDP growth rate
		Value of contract disbursed										

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		Result Statement	Indicators		Result Statement	Indicators	Result Statement	Indicators	Result Statement	Indicators	Result Statement	Indicators	
		and strengthening its financial position and solvency.	Develop the Cost of Supply Model to determine the long run marginal cost										
			Mentoring arrangements in place at ESCOM to assist with tariff and regulatory issues										MERA approval on revised tariffs and pricing structure
			Strategy for cost reflective and pro-poor tariff framework developed										
			Cost of Service analysis completed										
		Assist ESCOM in the design of tariffs and the preparation of tariff applications to MERA.	Financial model containing cost of service elements completed	MERA and ESCOM	New sustainable and pro-poor tariff regime which allows for future investments is implemented		Increased commercial sustainability of sector		Expansion of Sector to Better Meet Demand for Power		Annual real per capita income		
			Review Cost of Service Study from Financial Model									Timely and accurate tariff applications submitted to MERA	Cost Recovery ratio: operational costs
					Phased implementation plan for cost-reflective tariff regime developed					Investment in Energy Sector - total MW			

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			Review ESCOM's pricing strategy and structure.			Life line tariff access		replacement charges		Total electricity generated		Manufacturing and industry output growth rate
			Revise the pricing structure			Tariff updates approved on schedule		Cost Recovery ratio: operational costs + capital replacement charges + capital expansion charges		Total electricity consumed		
			Net tariff application completed			Renewable Energy Feed-in Tariff						
						Tariff indexation framework adopted						

Key Assumptions and Risks

Technical staff turnover and availability within ESCOM and MCA	Legal and regulatory environment strengthened to allow TPA	Availability of maintenance spares from ESCOM
Political will to implement reforms; Parliament does not approve necessary reforms	ESCOM board to commit to new HR practices	

External Factors Outside Control of the Project

Malawi's MCC score card deteriorates	Public perception: supply of electricity likely to remain below notional demand for years	Demand growth is known and accommodated. New IPP generation and Kapichira II installed	Foreign Exchange and finance available for business
Vandalism of ESCOM equipment and transformers		Macroeconomic and fiscal instability	

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		Result Statement	Indicators		Result Statement	Indicators	Result Statement	Indicators	Result Statement	Indicators	Result Statement	Indicators
Procurements successful and on-time		MAREP extensions increases system instability					Input price changes and exchange rate movements		Power quality and reliability improves and customers reduce generator, charcoal and fuel wood use			

Bold indicators denote Annex III indicators

 Indicates a Compact Conditions Precedent

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major investments made to upgrade or expand the transmission system in recent years, c) delayed replacement and modernization of existing equipment, d) poor reliability and quality of service			Annual Maintenance Plan developed Procurement policies and procedures Turnaround Support Team deployed		Billing system installed by Q1 2016 Maintenance management system in place Well maintained assets Maintenance plan in place and implemented		ESCOM Billing and Collection Efficiency Reduction in Losses Quantity of Electricity Metered Quantity of Electricity Billed					
		Improve and adopt best practices in quality customer service, operational and maintenance management, and procurement management leading to system efficiency, reliability and commercial viability	Value of contract signed Value of contract disbursed Train Revenue staff in customer service Improve plant operations and maintenance systems Occupational health and safety improvements		ESCOM	Average time to respond to forced outages Customer satisfaction and perceptions of service Improved ESCOM Operational Management Improved occupational health and safety	Improved ESCOM Operational and Management Efficiency ESCOM Maintenance Expenditures ratio to planned maintenance budget ESCOM Maintenance Expenditures plans	Improved Electricity Access and Availability for the Malawian people and businesses	Number of customers connected to the grid Electric Power Consumption per capita		Poverty rate for female headed households	

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			TA to support live wire repairs, improved management of assets, diagnostic equipment and spare parts		and Efficiency	Wires repaired		Average cost of electricity billed					
			Institute and implement total quality management		Improved management of procurements	Improved asset management		Annual Procurement Audit					
			TA to strengthen internal controls			Procurement policies and procedures in place							
						Training plans developed and implemented for key managers							
						Internal controls strengthened							
		Strengthening of oversight, performance management	Value of contract signed	ESCOM	Better trained management and staff to support improved operational management and efficiency at ESCOM	ToRs for mentors and other technical assistance	Improved efficiency, reliability and commercial viability of ESCOM	Reduced Outages	Expansion of Sector to Better Meet Demand for Power	Investment in Energy Sector - total USD	Economic Growth	Annual real GDP growth rate	
			Value of contract disbursed										
			Gap Analysis of technical & non-technical needs										
			Train staff in root cause analysis of equipment failure.										

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		Result Statement	Indicators		Result Statement	Indicators	Result Statement	Indicators	Result Statement	Indicators	Result Statement	Indicators
			Train staff in financial risk management Human Resources study/ strategy recommendations implemented CEO Recruited and hired Organizational re-design Performance management review process developed			HR Strategy implemented Performance review system adopted		Voltage Quality Satisfactory results of Annual performance audit reports		Investment in Energy Sector - total MW Total electricity generated		
	Activity 2. ESCOM Corporate Governance	Development and implementation of a framework and guidelines for good corporate governance practices.	Coordinating entity established Strategic planning process developed Corporate Governance framework developed Corporate Benchmarking Study of ESCOM	GOM and ESCOM	Improved corporate planning/ governance processes at ESCOM. Strategic plan adopted New plans created and adopted by ESCOM Board Board restructured	Improved Internal and External Corporate Governance of ESCOM Corporate Benchmarking study recommendations implemented Peer Review						Annual real per capita income

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		Result Statement	Indicators		Result Statement	Indicators	Result Statement	Indicators	Result Statement	Indicators	Result Statement	Indicators
			Staggering of ESCOM Board Terms		Nominations and appointments framework adopted		<p align="center">Public annual report and audited financial statements</p>		<p align="center">Total electricity consumed</p>		<p align="center">Manufacturing and industry output growth rate</p>	
		<p>Implementation of corrective action to address any material weaknesses or recommendations from the Semi-Annual Performance Audit.</p>	Benchmarking study; Corrective Actions as per semi-annual review	<p>ESCOM's fiduciary duties improved by adopting commercial and corporate governance principles.</p>	Financial Plans updated							
			Monitor and evaluate compliance with relevant legislation and policies		Annual financial and operational targets established and measured							
			Capacity Building		Annual audited financial statements and reports published							
			Conduct Annual Performance Audit									

Key Assumptions and Risks

Technical staff turnover and availability within ESCOM and MCA	Legal and regulatory environment strengthened to allow TPA	Availability of maintenance spares from ESCOM
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External Factors Outside Control of the Project

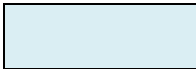
Malawi's MCC score card deteriorates	Public perception: supply of electricity likely to remain below notional demand for years	Demand growth is known and accommodated. New IPP generation and Kapichira II installed	For Exchange and finance available for business
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		Result Statement	Indicators		Result Statement	Indicators	Result Statement	Indicators	Result Statement	Indicators	Result Statement	Indicators
Political will to implement reforms; Parliament does not approve necessary reforms		ESCOM board to commit to new HR practices					Vandalism of steel members and transformers		Macroeconomic and fiscal instability			
Procurements successful and on-time		MAREP extensions increases system instability					Input price changes and exchange rate movements		Power quality and reliability improves and customers reduce generator, charcoal and fuel wood use			

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Problem	Activities	PROCESS MILESTONES		Stakeholder	OUTPUTS		Theory of Change	OUTCOMES		MEDIUM AND LONG TERM OUTCOMES		COMPACT GOAL	
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deteriorating operational and financial performance, and (c) impeded expansion of the sector to successfully meet demand.		Strengthen MERA's regulatory capacity	Peer-to-peer relationships	MERA and GOM	Strengthened MERA Operations	Exchange visits with regulators		Indicator	Improved Electricity access to electricity for the Malawian people and businesses	Number of customers connected to the grid	Growth	GDP growth rate	
	MERA BOD membership		Cost-reflective levies and charges										
Benchmarking study	Improved management capacity												
"Use of system" charges and 3rd party access to grid													
		Review of levies and charges											
	Activity 2. Enabling Environment for Public and Private Sector Investment	Create enabling environment for private sector participation	Parliamentary oversight	MOE, MERA, Parliament	Improved Market Structure for Private Investment	Credit-worthy single buyer	Improved Financial Sustainability/Solvency of ESCOM	Cost Recovery Ratio	Expansion of Sector to Better Meet Demand for Power	Investment in Energy Sector - total USD	Annual real per capita income		
Public outreach/education			Power Market Structure report produced			Debt-Equity Ratio				Investment in Energy Sector - total MW			
			Guidelines for MERA M&E of single buyer transactions					Acid or Quick Test					

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			Building blocks of bilateral power trade market		Revised laws for differential tariffs for off grid generation		the sector.				Total electricity generated		Manufacturing and industry output growth rate
			Clarify REA		Revised Energy Laws to strengthen electricity market				Current Ratio		Total electricity consumed		
					Revised rural electrification act without MW and IRR restrictions				Number of IPP solicitations				
					Independent System and Market Operator developed								
					Updated codes for captive, cogeneration and other forms of generation								

Key Assumptions and Risks	External Factors Outside Control of the Project
Legal and regulatory environment strengthened to allow TPA	Malawi's MCC score card deteriorates Public perception : supply of electricity likely to remain below notional demand Demand growth is known and accommodated. New IPP generation and Kapichira II installed For Exchange and finance available for business

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Procurements successful and on-time		MAREP extensions increases system instability						Vandalism of steel members and transformers Input price changes and exchange rate movements			Macroeconomic and fiscal instability Power quality and reliability improves and customers reduce generator, charcoal and fuel wood use		

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