THE UNITED REPUBLIC OF TANZANIA

MINISTRY OF ENERGY

ELECTRICITY SUPPLY INDUSTRY REFORM STRATEGY AND ROADMAP (2025-2035)

JUNE 2025

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ABBREVIATIONS

AfDB	African Development Bank
CMS	Corporate Management System
CNA	Capacity Needs Assessment
CoMS	Commercial Management System
CRM	Customer Relationship Management
DNO	Distribution Network Operator
DSE	Dar es Salaam Stock Exchange
DTZS	Draft Tanzania Standard
EAPP	Eastern Africa Power Pool
EIPC	Electricity Infrastructure Procurement Coordinator
EPP	Emergency Power Producer
ERB	Engineers Registration Board
ESCBP	Energy Sector Capacity Building Project
ESIA	Environmental and Social Impact Assessment
ESI	Electricity Supply Industry
ESI-SR	Electricity Supply Industry Reform Strategy and Roadmap
EWURA	Energy and Water Utilities Regulatory Authority
GCC	Grid Control Center
GDP	Gross Domestic Product
GoT	Government of Tanzania
GWh	Gigawatt hour
HFO	Heavy Fuel Oil
ICC	Independent Competition Commission
ICB	International Competitive Bidding
ICT	Information and Communication Technology
IMO	Independent Market Operator
IPP	Independent Power Producer
ISO	Independent System Operator

ITC	Inter-Ministerial Technical Committee
JNHPP	Julius Nyerere Hydropower Project
KPI	Key Performance Indicator
kV	Kilovolt
kWh	Kilowatt hour
LNG	Liquefied Natural Gas
MEPAF	Monitoring, Evaluation and Performance Accountability Framework
MoE	Ministry of Energy
MoF	Ministry of Finance
MoU	Memorandum of Understanding
AfDB	African Development Bank
CMS	Corporate Management System
CNA	Capacity Needs Assessment
CoMS	Commercial Management System
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ESCBP	Energy Sector Capacity Building Project
ESIA	Environmental and Social Impact Assessment
ESI	Electricity Supply Industry
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EWURA	Energy and Water Utilities Regulatory Authority
GCC	Grid Control Center
GDP	Gross Domestic Product
GoT	Government of Tanzania
GWh	Gigawatt hour
HFO	Heavy Fuel Oil
ICC	Independent Competition Commission

ICB	International Competitive Bidding
ICT	Information and Communication Technology
IMO	Independent Market Operator
IPP	Independent Power Producer
ISO	Independent System Operator
ITC	Inter-Ministerial Technical Committee
JNHPP	Julius Nyerere Hydropower Project
KPI	Key Performance Indicator
kV	Kilovolt
kWh	Kilowatt hour
LNG	Liquefied Natural Gas
MEPAF	Monitoring, Evaluation and Performance Accountability Framework
MoE	Ministry of Energy
MoF	Ministry of Finance
MoU	Memorandum of Understanding
MW	Megawatt
NAO	National Audit Office
NEMC	National Environment Management Council
PPA	Power Purchase Agreement
PPP	Public-Private Partnership
PSMP	Power System Master Plan
RBF	Results-Based Financing
REA	Rural Energy Agency
REF	Rural Energy Fund
RMS	Resource Management System
SADC	Southern African Development Community
SAAP	Southern African Power Pool
SAIDI	System Average Interruption Duration Index
SAIFI	System Average Interruption Frequency Index
SCADA	Supervisory Control and Data Acquisition
SGR	Standard Gauge Railway
SHS	Solar Home Systems
Sida	Swedish International Development Cooperation Agency

SPP	Small Power Producer
TDV	Tanzania Development Vision
TIC	Tanzania Investment Centre
TPDC	Tanzania Petroleum Development Corporation
TPES	Total Primary Energy Supply
TR	Treasury Registrar
TREEP	Tanzania Rural Electrification Expansion Program
TSA	Tanzania Startup Association
TSMS	Technical Services Management System
TZS	Tanzanian Shilling
UDSM	University of Dar es Salaam
USD	United States Dollar
VETA	Vocational Education and Training Authority
VSPP	Very Small Power Producer
ZECO	Zanzibar Electricity Corporation

FOREWORD

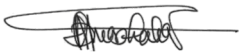
Reliable, affordable and sustainable electricity is the lifeblood of modern economies. It powers homes and hospitals, enables learning and innovation, drives industry and commerce, and lights the way to a more prosperous and inclusive future. For the United Republic of Tanzania, unlocking the full potential of our people and natural endowments and advancing to induatrialized middle income country, depends on an electricity sector that is efficient, competitive and responsive to the needs of its citizens.

Over the past decade, Tanzania has made significant strides in reforming its electricity sub-sector. Key milestones include financial and operational turnaround of TANESCO, driven by systematic phasing out of costly Emergency Power Plants (EPPs) and off-grid diesel plants made possible through ongoing grid extension. Electricity access has expanded across both rural and urban areas, underpinned by substantial public investmment in rural electrification and in increasing generation, most notably the Julius Nyerere Hydropower Project (JNHPP) 2115MW. Now fully operational, JNHPP provides a low-cost baseload source that enhances grid stability and reduces dependence on gas-fired generation. The country has also developed a robust regulatory framework to support the emergence of a competitive wholesale electricity market. Yet, as we all recognize, today's achievements bring tomorrow's challenges. Rapid urbanisation, accelerated industrialisation, digital transformation, and the global shift toward low-carbon energy sources are intensifying pressure on the electricity supply industry (ESI). Meeting these emerging demands requires nothing less than a fundamental transformation in the way electricity is generated, transmitted, distributed, and regulated.

The Electricity Supply Industry Reform Strategy and Roadmap (2025–2035) is the Government's comprehensive response to this evolving context. Building on the foundations of the 2014 - 2025 Reform Strategy and Roadmap and aligned with key national and international policy instruments, this Strategy and Roadmap outlines a clear and time-bound path toward a competitive, resilient, and sustainable electricity market. It embraces emerging opportunities in renewable energy, distributed energy systems, regional power trade, and public-private partnerships.

Implementation now rests with all of us. The milestones and key performance indicators set out herein will guide our progress, but it is partnership, perseverance and accountability that will determine our success. I therefore call upon each stakeholder, policy maker, regulator, utility, development partners, financier, entrepreneur and consumer to embrace the spirit of reform and work together to power Tanzania's next leap forward.

With the adoption of this Strategy and Roadmap, we reaffirm our commitment to leaving no one behind on our journey to middle-income status. Let us harness our abundant resources, innovative spirit and shared determination to deliver an electricity supply industry that truly illuminates the ambitions of every Tanzanian.



DR. DOTO MASHAKA BITEKO, MP
DEPUTY PRIME MINISTER AND MINISTER FOR ENERGY

PREFACE

The Government of the United Republic of Tanzania recognizes the critical role that a modern, reliable, and financially sustainable electricity supply industry plays in driving economic growth, enhancing social welfare, and achieving national development goals. Over the past decade, significant progress has been made through the implementation of the Electricity Supply Industry Reform Strategy and Roadmap (2014–2025). However, emerging challenges, evolving technologies, and increasing energy demands necessitate a bold and forward-looking transformation.

This Implementation Roadmap for the Electricity Supply Industry Reforms (2025–2035) has been developed to operationalize the next phase of reforms. It outlines specific reform actions, timelines, institutional responsibilities, and measurable milestones to support the strategic objectives of the revised ESI Reform Strategy. The roadmap is designed to guide the transition toward a competitive, inclusive, and climate-resilient power sector—one that enables broad-based private sector participation, enhances TANESCO's performance, and expands affordable access to electricity for all Tanzanians.

The roadmap also responds to Tanzania's commitments under the National Energy Compact and Vision 2050, and serves as a coordination tool for government, development partners, and investors. Its implementation will require strong leadership, sustained commitment, and a results-oriented approach across all sector stakeholders.

ENG. FELCHESMI JOSSEN MRAMBA
PERMANENT SECRETARY

EXECUTIVE SUMMARY

The Government of Tanzania, through the Ministry of Energy, has developed a comprehensive 10-year Implementation Roadmap (2025–2035) to support the next phase of Electricity Supply Industry (ESI) reforms. This roadmap operationalizes the strategic objectives outlined in the revised ESI Reform Strategy, focusing on financial sustainability, private sector participation, universal access, and energy transition.

The reform objectives include.

- Guide Tanzania toward a modern, inclusive, and financially sustainable electricity market.
- Enhance private investment in generation and distribution.
- Expand access to affordable, reliable, and clean energy.
- Support TANESCO's transformation and strengthen regulatory oversight

The roadmap is structured into three **time-bound phases:**

Short-Term (2025–2027)

- Institutional Reforms: Establish an ESI Reform Steering Committee, publish a Reform Action Plan, and conduct a Capacity Needs Assessment.
- Utility Transformation: Corporatize and ring-fence TANESCO Strategic Business Units (SBUs); implement KPI-based performance management.
- Legal & Regulatory Reforms: Enable private sector participation in distribution via franchising; revise Small Power Producer (SPP) frameworks; introduce net metering and updated tariffs.
- Finance & Access: Conduct a cost-of-service study; introduce results-based financing (RBF) and tax incentives for clean cooking and solar.
- Grid Modernization: Pilot smart meters; launch a national loss reduction program; implement clean cooking and distributed renewable energy (DRE) projects.

Medium-Term (2028–2032)

- Franchise Expansion: Roll out 2–3 distribution franchise pilots and scale to 5–7 zones.
- Transmission PPPs: Facilitate private investment in high-voltage lines and prepare for independent transmission operators.
- Tariff & Subsidy Reform: Institutionalize cost-reflective tariffs with pro-poor subsidies.
- Regional Integration: Complete interconnectors with Zambia, Uganda, Malawi, Mozambique, and Kenya to enable regional power trade.

Long-Term (2033–2035)

- Sector Restructuring: Expand franchising nationally (60–80% of customers), with possible consolidation of utilities.
- Market Maturity: Prepare for competitive wholesale markets and potentially unbundle TANESCO further.

- Financial Independence: Achieve full cost recovery and eliminate recurrent government transfers to TANESCO.
- Green Finance Mobilization: Leverage up to $300M in climate finance for clean energy and grid resilience.

Cross-Cutting Themes are.

- Governance & Accountability: Annual performance reporting, mid-term and final evaluations, and legislative updates (e.g. revised Electricity Act).
- Capacity Building: A sustained program targeting key institutions including MoE, EWURA, REA, and TANESCO.
- Donor Alignment & Private Investment: Reform-linked financing, output-based aid (OBA), and transaction advisory support are integrated throughout.

This roadmap marks a shift from vision to execution, ensuring that the ESI reforms deliver measurable results aligned with Tanzania's Vision 2050, the National Energy Compact, and SDG7 targets. It provides a credible platform for government, private investors, and development partners to coordinate efforts and accelerate transformation of the electricity sector.

01 INTRODUCTION

1.1. Electricity Supply Industry (ESI) Structure

Tanzania operates under a vertically integrated electricity supply system, dominated by the state-owned utility TANESCO (Tanzania Electric Supply Company Limited), although private sector participation is allowed in power generation in the form of Independent Power Producers (IPPs), Small Power Producers (SPPs) or min-grids and off-grid systems operators. Table 1 and Figure 1 provides an overview of the ESI structure in Tanzania.

Table 1: Entities involved in the electric delivery system

Component	Description
Generation	Mixed: public (TANESCO), private regulated entities (Independent Power Producers (IPPs)/Small Power Producers (SPPs) /Very-Small Power Producers (VSPPs)
Transmission	Centralized, national grid operated by TANESCO
Distribution	TANESCO is the sole distributor; mini-grids and off-grid systems serve rural areas
Retail Supply	TANESCO and licensed mini-grid operators

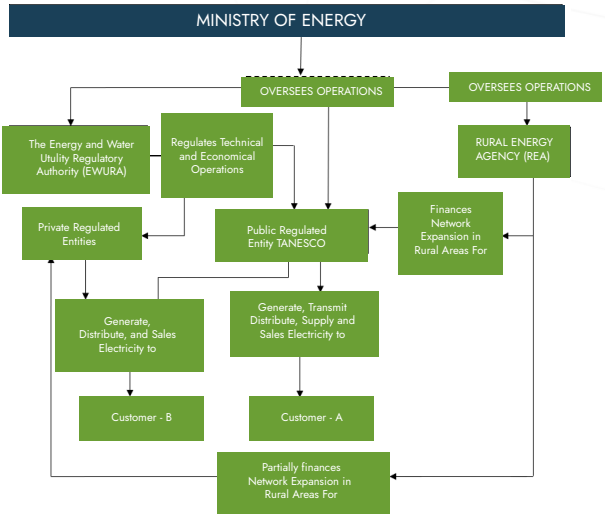


Figure 1: The Electricity Supply Industry Institutional Structure
Source: Energy and Water Utilities Regulatory Authority (EWURA)

The roles of key ESI institutions indicated in Figure 1 are described below

- Ministry of Energy (MoE)- Sets National Energy Policy and Planning
- Energy and Water Utility Regulatory Authority (EWURA) - Regulates tariffs, service quality and licenses (electrical installation, electricity generation, electricity transmission, electricity distribution, electricity supply, and cross-border electricity trade)
- Rural Energy Agency (REA)- Responsible for implementing grid extension in rural areas and supporting private sector small-scale rural power generation projects (both grid and off-grid).
- Tanzania Electric Supply Company (TANESCO)- Power generation, transmission, distribution
- Tanzania Petroleum Development Corporation (TPDC)-Supplies natural gas for power generation to TANESCO or IPPs

1.2. Electricity Generation Mix

As of Aprill 2025, the installed capacity of power plants connected to the National Grid system was 4,031.71 MW of which 2,716.27 MW (67.37 per cent) comes from hydropower, 1,198.82 MW (29.73 per cent) comes from natural gas, 101.12 MW (2.51 per cent) comes from diesel and HFO, 5.00 MW (0.12 percent) comes from solar and 10.50 MW (0.26 per cent) of electricity generated from biomass. Figure 2 illustrates the installed capacity by energy source . As of April 2025, the reserve margin was 52% of the installed capacity, equivalent to 2,110.27 MW. The installed capacity for non-connected grid plants is 38.372 MW which includes Tanzania Electric Supply Company Limited (TANESCO)- owned plants capable of generating 28.942 MW, 7.4 MW from SPPs and 2.03 MW from VSPPs owned by private entities.

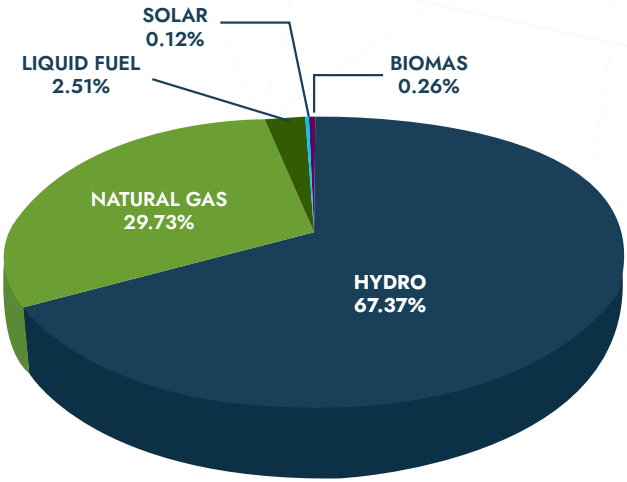


Figure 2: National Installed Capacity by Energy Source
Source: MoE (2025)

1.3. Electricity Demand

The served load demand for electricity in the National Grid system continued to grow and reached 1 ,921.44 on 9th April 2025 compared to 1,645.23 MW on 14th June 2024 equivalent to an increase of 14.4 per cent.

1.4. Electricity Transmission Network

As of April 2025, the country's electricity transmission network is comprised of 8,141 km of transmission lines owned and operated by TANESCO. The main transmission lines include 1,525km of 400 kV, 4,096 km of 220 kV, 1,940 km of 132 kV and 580 km of 66 kV .

1.5. Distribution Network

As of April 2025, the electricity distribution network comprises 200,266.25 km, connecting 4,957,278 customers across the country as of 30 June 2024 . Compared to the year ending May 2022, there was an increase in distribution networks of 4.8 per cent. The rural electrification initiatives under the Rural Energy Agency have significantly contributed to expanding the TANESCO distribution network.

1.6. Electricity Generation, Demand and Supply Situation Analysis

1.6.1. Load Forecast

The Tanzania Power System Master Plan 2024 update exercise has prepared a twenty-five-year load forecast from 2024 to 2050 based on a review of historical electricity consumption, economic factors (GDP, Population) performance, and electricity needs to support emerging demands. The emerging issues that form the key drivers of future power demand include adopting E-mobility, clean cooking technologies, the Standard Gauge Railway (SGR) project, and Liquefied Natural Gas (LNG) development.

The Power System Master Plan 2024 Update shows that the electricity consumption demand will increase from 16,007.5 GWh in 2025 to 40,932.87 GWh in 2030. The forecast demand translates into an increase in per capita consumption from 243 kWh in 2025 to 528 kWh in 2030. The connectivity rate is projected to increase from 50% in 2025 to 87% in 2030 with an estimated 13.5 million customers .

1.6.2. Power Generation Expansion Plan

Based on forecasted electricity demand, the total installed capacity increases from 3,191.71 MW in 2024 to 19,905.19 MW in 2050. Renewables are projected to account for 57% of the total installed capacity with the increase of non-hydro renewable energy capacity contribution from 1% to 52% of total renewable energy capacity in the same period as shown in the Table 2 below. The corresponding energy increases from 16,445.63 GWh in 2024 to 40,932.87 GWh in 2030 and to 108,203.90 GWh in 2050.

Table 2: Power Generation Expansion Plan

Year	2024	2025	2028	2030	2038	2050
Installed Capacity-MW	3,191.71	4,181.71	8,735.09	11,822.39	15,638.19	19,905.19
Renewable	59%	69%	65%	62%	62%	57%
Non-Renewable	41%	31%	35%	38%	38%	43%
Renewable non-Hydro	1%	2%	46%	45%	44%	52%

Source: Power System Master Plan 2024 Update

1.6.3. Transmission Network Expansion

To evacuate power generation, a total of 16,552.16 km of new transmission lines will be developed over the planning horizon, as shown in Table 3. Thus, by the end of the planning horizon, a total transmission line will be 24,284.54 km. The investment will lead to a subsequent reduction in transmission losses from 5.80% in 2024 to 2.85% by 2050.

Table 3: Transmission Network Plan

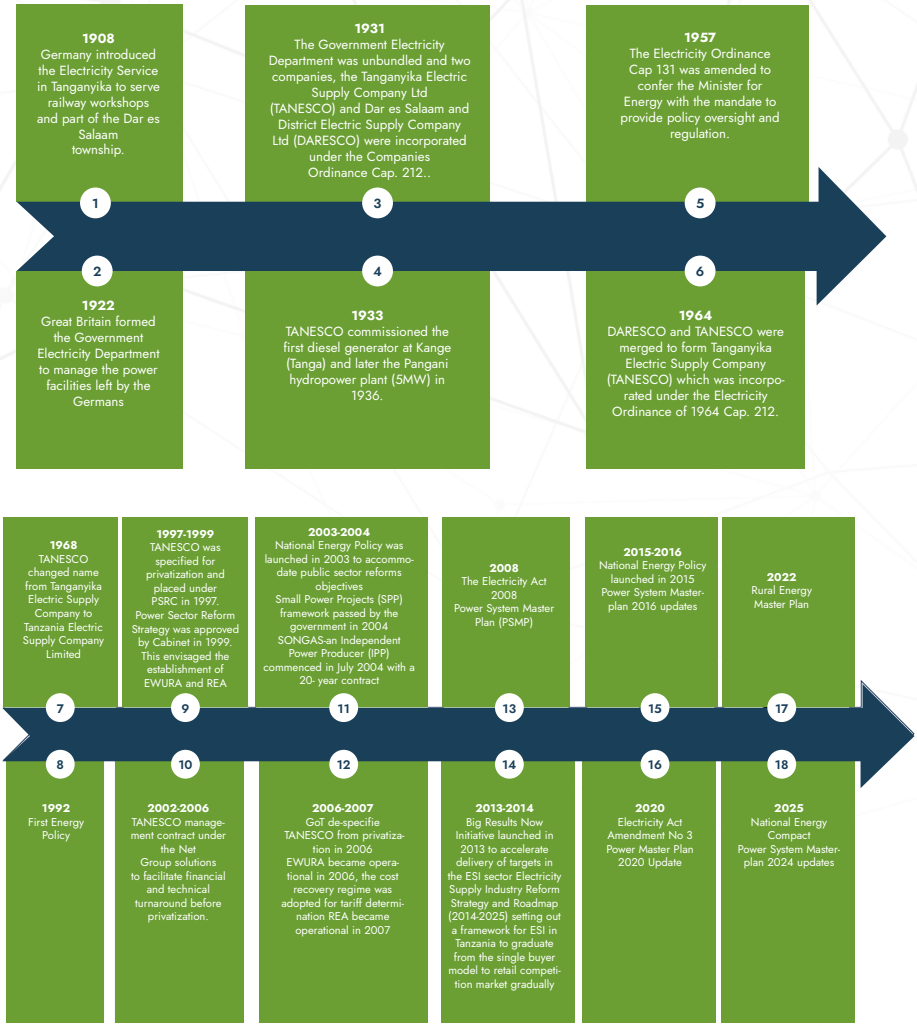
SN	Voltage Level	Transmission System Additions (KM)			
		2024–2028	2029–2038	2039–2050	Total
1	400kV	1,922.00	2,558.33	880.22	5,360.55
2	220kV	2,663.58	5,769.72	1,098.00	9,531.30
3	132kV	1,299.01	175.7	108.6	1,583.31
	Total	**5,884.59**	**5,884.59**	**5,884.59**	**5,884.59**

Source: Power System Master Plan 2024 Update

1.7. Evolution of ESI Reforms in Tanzania

The Tanzania ESI subsector has undergone various reforms from its inception during the colonial era (1900s-1961), through independence/socialist era (1961–1980s), liberalization era (1990s), institutional reforms and access expansion (2000s) and recently to the return of more centralized governance through a mixed strategy of institutional reform, major project deployment, and rural electrification (2010-present). Figure 3 summarizes the key ESI reforms milestones based on various literatures.

Figure 3: Summary of key ESI reforms in Tanzania



1.8. Electricity Supply Industry Reform Strategy and Roadmap (ESI-SR 2014–2025)

Between February and June 2025, the Government of Tanzania, through the Ministry of Energy (MoE), commissioned an independent consultant to assess the implementation of the Electricity Supply Industry Reform Strategy and Roadmap 2014–2025 (ESI-SR 2014–2025), and to recommend forward-looking reforms aligned with national energy goals. The ESI-SR 2014–2025 aimed to transition the electricity supply market from a vertically integrated, state-led model to a more efficient, competitive structure promoting private sector participation, institutional reforms, and financial sustainability of TANESCO.

As such the assessment reviewed the implementation of 23 major reform activities outlined in the ESI-SR 2024-2025, focusing on four core thematic areas:

- Institutional capacity building
- Turnaround of TANESCO
- Regulatory framework development
- Unbundling of TANESCO

Additionally, the assessment evaluated the performance of the Electricity Supply Industry (ESI) and TANESCO, analysed energy loss trends, and benchmarked international experiences to inform future reforms. Below are the key assessment findings

Reform Implementation Status

- Out of 23 reform activities, 52% remain unimplemented, while only 22% were fully implemented.
- TANESCO turnaround efforts showed significant progress (75% broadly or fully implemented), including digital transformation (CMS project), cost reductions, and enhanced operational efficiency.
- Unbundling reforms stagnated, with 86% of planned activities unimplemented, largely due to shifts in investment priorities post-2015.
- Institutional capacity building efforts were fragmented and lacked a structured Capacity Needs Assessment.

TANESCO Viability

- While TANESCO reduced operational losses and digitized many processes, financial sustainability remains constrained by low-cost recovery, high system losses (14.6% in 2024), and limited tariff adjustments.
- Public perception of TANESCO's service quality remains mixed, necessitating continued reforms in customer service, transparency, and reliability.

Power Sector Performance

- Generation capacity grew from 1,500 MW (2014) to 4,031 MW (2025), led by government investments like the JNHPP (2,115 MW).
- Electricity connectivity increased from 24% to 46%, approaching the 2025 target of 50%, due to rural electrification initiatives (e.g., REA and TREEP).
- Energy loss reduction improved from 19% (2014) to 14.61% (2024), achieving 82% of the targeted reduction.

Regulatory and Market Development

- Significant progress was made in developing a robust regulatory framework (e.g., EWURA rules and codes), but enforcement and operationalization remain weak.
- The Electricity Infrastructure Procurement Coordinator (EIPC) was never operationalized, limiting competitive procurement of IPPs.

Lessons from International Experience

Benchmarking of peer countries (e.g., Kenya, Uganda, Nigeria, Namibia) emphasized the importance of:

- Clear and enforced regulatory frameworks
- Transparent and competitive IPP procurement
- Gradual, politically supported unbundling
- Strong institutional and governance capacity

Recommendations for ESI-SR 2025–2035

1. Adopt a phased reform roadmap focused on performance-based restructuring before full unbundling.
2. Strengthen EWURA's enforcement powers and accelerate tariff reforms to reflect true cost of service.
3. Operationalize EIPC and ISO to facilitate competition and grid efficiency.
4. Expand clean energy and off-grid access, especially in underserved rural regions.
5. Develop a capacity building plan, underpinned by a formal Capacity Needs Assessment.
6. Align reforms with Tanzania's National Energy Compact (Mission 300), including targets for 75% electricity access and increased renewable energy share by 2030.

1.9. Experience and Lessons on the Implementation of ESI Reforms from other countries

The assessment phase included the review of experience of implementation of ESI sector reforms in other countries of similar context including Kenya, Uganda, Malawi, Zambia, Namibia, South Africa, Mozambique, Côte d'Ivoire & Nigeria. Experience and lessons from these countries offer important insights to Tanzania's reforms initiatives as depicted in Figure 4.

Figure 4: Synthesis of key lessons from various countries

1.10. Electricity Supply Reform Strategy (2025-2035)

The Electricity Supply Industry Reform Strategy 2025–2035 (ESI-SR 2025–2035) is the Government of Tanzania's strategic framework for transforming the electricity sector into a modern, financially viable, and inclusive system that supports national development, industrialization, and climate resilience. Building on lessons from the 2014–2025 strategy, this new reform phase introduces targeted interventions to address structural, operational, and investment challenges that continue to affect the sector.

Purpose

To guide the next decade of power sector reforms aimed at expanding access, attracting private investment, improving reliability and affordability, and positioning Tanzania as a regional electricity trade hub.

Vision

A competitive, resilient, and financially sustainable electricity market that delivers reliable, clean, and affordable energy to all Tanzanians.

Strategic Objectives

1. Improve operational and financial sustainability of TANESCO and other sector institutions.
2. Expand electricity access to at least 75% of households by 2030, including underserved rural populations.
3. Enable private sector participation across generation, distribution, and transmission through PPPs and franchising.
4. Modernize the grid with smart technologies, loss reduction, and improved system reliability.
5. Accelerate the energy transition by increasing the share of renewables to 75% of the energy mix by 2035.
6. Enhance sector governance and regulatory capacity, including performance monitoring and transparency.
7. Strengthen regional integration through interconnections and active participation in EAPP and SAPP markets.

Key Reform Pillars

- Institutional & Governance Reform: Capacity building, performance-based management, and restructuring TANESCO.
- Legal & Regulatory Frameworks: Enabling frameworks for franchising, IPPs, SPPs, and competitive procurement.
- Private Sector Participation: Scaling PPPs, expanding mini-grids, and mobilizing climate and green finance.
- Financial Sustainability: Cost-reflective tariffs, targeted subsidies, and improved utility creditworthiness.
- Infrastructure Expansion & Modernization: Grid reinforcement, smart metering, and regional interconnectors.
- Renewable Energy & Clean Cooking: Scaling solar, wind, geothermal, and access to clean cooking solutions.

Implementation Approach

The strategy is supported by a 10-year Implementation Roadmap (2025–2035) with time-bound reform activities, milestones, responsible institutions, and monitoring frameworks. It adopts a phased, performance-based approach, ensuring flexibility and stakeholder alignment throughout the decade.

Alignment

The strategy aligns with the Tanzania Development Vision 2050, the National Energy Policy, SDG 7 (Affordable and Clean Energy), the National Energy Compact and Mission 300 and East and Southern Africa Power Pool objectives

02 PROPOSED ESI REFORM

2.1. Strengths, Weaknesses, Opportunities and Challenges Analysis

A Strengths, Weaknesses, Opportunities and Challenges (SWOC) Analysis sums up an enterprise's strategic situation. It provides a quick overview of the enterprise's internal strengths and weaknesses, while taking into consideration the environmental opportunities and challenges. Owing to the strategic importance of the ESI, particularly TANESCO, in the economy and national development, the restructuring of TANESCO needs to address its inherent weaknesses and challenges of the entire electricity sub-sector. It must aim to create a vibrant sub-sector in which institutions and structures will improve power supply in the country,

An analysis of the internal and external environment in which TANESCO operates reveals some strengths, weaknesses, opportunities and challenges listed in Figure 5 and further elaborated in Table 4 below.

Figure 5: SWOC Analysis

Table 4: Elaboration of SWOC Analysis

SN	STRENGTHS		
	Issue	**Description**	**Strategy**
1	Market Dominance and Integration	TANESCO controls about 91% of Tanzania mainland generation capacity and all transmission and distribution assets. This monopoly status provides economies of scale and unified planning across generation, transmission, and retail supply. The company's extensive customer base (≈6.6 million as of 2025) also underpins strong revenue potential.	• Optimize generation, transmission, and distribution processes. • Standardize operating procedures. • Develop a skilled workforce and implementing efficient management practices.
2	Diversified Generation Portfolio	TANESCO operates a mix of large hydro and natural gas/thermal plants.	• Adopt a Diversified Energy Mix,
3	Government Support and Financial Backing	There is interest and commitment by the Government of Tanzania in ensuring sector performance	• Ensure the government's Power System Master Plan (2024 updates) and Vision 2050 prioritize electricity expansion, ensuring policy alignment and funding for TANESCO's growth.
4	High Service Coverage and Collection Efficiency	The grid network covers all urban and 99.1% of villages, reflecting successful electrification efforts. Notably, TANESCO has ~99% revenue collection efficiency	• Rehabilitate, reinforce, and expand system to reach more customers particularly in rural areas.

SN	WEAKNESSES		
	Issue	**Description**	**Strategy**
1	High Technical and Non-Technical Losses	Despite improvements, TANESCO's overall system losses remain high – about 14.6% in FY2023/24. These losses (half transmission, half distribution) stem from outdated infrastructure, aging/damaged meters, and energy theft. They directly erode revenue and require additional generation to meet load. Persistent losses indicate operational inefficiency and unserved energy, constraining profitability.	• Upgrade transformers, conductors, and capacitor banks. • Smart metering, community surveillance, enforcement • Mass metering and billing system reform • GIS audits, feeder-level data analysis • Awareness campaigns and structured amnesty programs

2	Financial Strain and Subsidy Dependence	As of early 2025, TANESCO's total outstanding debt stands at TZS 238.7 billion, split between TZS 111.4 billion in principal and TZS 127.2 billion in accrued interest and regularly depends on government subsidies to cover operating losses.	• Tariff and Revenue Reform: Implement cost-reflective, multi-year tariffs approved by EWURA; Introduce Fuel Cost Adjustment and FX pass-through mechanisms to reduce government backstopping. • Operational Efficiency: Reduce energy losses through grid modernization and smart metering; Improve billing and collection efficiency (target >95%), especially from government institutions. • Financial Restructuring: Complete debt restructuring and limit new non-concessional borrowing; stablish a utility liquidity buffer fund for short-term shocks. • Targeted Subsidy Reform: Shift to output-based subsidies (e.g. per connection or low-income block consumption); Avoid blanket subsidies that distort cost signals and consumption behavior. • Private Sector Leverage: Attract IPPs and PPPs to share investment burden in generation and distribution; Use performance-linked concessions or distribution franchises to reduce fiscal pressure. • Institutional and Policy Support: Strengthen coordination between TANESCO, MoF, and EWURA on fiscal planning and subsidy budgeting; Regularly publish subsidy needs and performance metrics for transparency.
3	Operational and Technical Limitations	TANESCO acknowledges that many processes remain manual with no fully integrated IT/ERP system, hampering efficiency. This leads to slow decision-making and planning. The company's aging infrastructure (generation units and long-neglected distribution lines) requires frequent maintenance, further straining budgets. Skill gaps and low representation of technical staff (only ~10.8% female engineers suggest workforce development needs. In sum, internal capacity constraints limit TANESCO's agility in a modernizing sector.	• Rehabilitate hydro/thermal plants, improve O&M • Build 400 kV lines, upgrade key substations. • Grid audits, smart metering, enforcement. • Asset health monitoring, preventive maintenance scheduling • Expand SCADA, use automated reclosers and Outage Management System (OMS) • Technical training, digital operations upskilling

4	Resource Dependence and Vulnerability	A significant share of TANESCO's power still comes from hydropower. This creates supply risk: recent droughts and low rainfall severely undercut hydro output. Without sufficient dry-year alternatives, TANESCO must run expensive thermal plants or import power during droughts. Moreover, much of Tanzania's hydro potential lies far from demand centers, straining the grid. These factors make TANESCO vulnerable to climate variability and transmission bottlenecks.	• Diversify the Generation Mix: Scale up solar and wind; Tap geothermal potential; Support small hydro and biomass. • Build Flexible, Resilient Grid Infrastructure: Invest in 400 kV backbone transmission lines for regional balancing (e.g., North-West Grid, central-south corridor); Expand storage (batteries or pumped hydro) to support renewable integration; Modernize SCADA and dispatch systems to manage diverse sources. • Decentralize Supply and Support Off-Grid Solutions: Encourage mini-grids and embedded generation in underserved areas; Promote productive use of electricity to support local economies and reduce stress on national grid. • Encourage adaptation of roof-top solar panels through introduction of net metering especially for residential, commercial and office buildings • Strengthen Supply Redundancy and Fuel Options: Ensure dual-fuel capability in thermal plants (gas-diesel switching); Increase gas storage and pipeline reliability; Maintain emergency diesel capacity but as a last resort. • Improve Climate and Resource Forecasting: Use hydrological modelling and seasonal forecasting to manage reservoir operations and plan dispatch; Partner with TMA and global climate services for drought early warning systems.

SN	OPPORTUNITIES		
	Issue	**Description**	**Strategy**
1	Abundant Renewable Energy Potential	Tanzania has rich untapped renewable resources. High solar insolation, wind corridors (estimated ~0.65 GW wind potential), and geothermal prospects (~650 MW identified) provide opportunities. Biomass from agro residues is also extensive.	• Leverage falling costs of solar PV, wind turbines, and grid-scale storage to diversify away from costly thermal generation. • Implement innovative framework (e.g. net-metering rules) to stimulate private investment in renewables. • Deploy distributed solar or mini grids to reduce transmission strain

2	Regional Power Trade and Interconnection	Tanzania's strategic position linking the Eastern African Power Pool (EAPP) with the Southern African Power Pool (SAPP) opens export opportunities. Projects like the Tanzania–Zambia 400 kV interconnector (TAZA) and Kenya–Tanzania lines will let TANESCO sell surplus into SAPP/EAPP markets. With the Julius Nyerere dam generating ~2,115 MW, Tanzania is already shifting towards net power exporter . Regional trade agreements and EAPP membership bolster this: TANESCO's planned upgrades (e.g. 400 kV lines to Kenya/ Zambia) are positioning it as a regional hub	• Complete & Commission Interconnectors: Prioritize TAZA, Kenya-Tanzania, Tanzania – Mozambique, Tanzania - Malawi and Tanzania - Uganda projects; Ensure synchronization with SAPP and EAPP operations and protocols. • Develop a National Export-Import Strategy: Identify times/seasons of surplus and deficit, and plan cross-border trade; accordingly, build a forecasting model integrating hydro inflows, gas dispatch, and load growth. • Enhance Domestic Grid Readiness: Reinforce backbone transmission (400 kV) and critical substation capacity; Enable bidirectional flow capabilities near border regions (e.g. Kagera, Mbeya, Songwe, Arusha). • Market Access: Harmonize regulatory frameworks with EAPP/SAPP • Institutional: Coordinate with regional operators, develop cross-border PPA templates
3	Growing Domestic Demand	Tanzania's economy and population are growing fast, driving electricity demand increases of ~10–15% per year. Ambitious national goals (e.g. 75% household electrification by 2030) will expand the customer base. This demand growth (from industry, railways, commerce, e-mobility, e-cooking, etc.) means TANESCO can absorb new capacity and raise sales	• Generation and Grid Expansion: Scale up generation, grid capacity, and customer service to match this growth. • Productive Use of Electricity: Promote electric irrigation, agro-processing, carpentry, cold storage, etc. in rural areas; Encourage micro-industries and SMEs to use electricity for value-added activities. • Time-of-Use and Demand Management: Introduce differentiated tariffs to shift usage to off-peak hours (especially in industrial zones); Roll out smart meters for high-demand customers to enable load monitoring and management. • Energy Efficiency: Promote energy-efficient appliances and public education on reducing peak load; Partner with industries to implement energy audits and efficiency retrofits

4	Policy and Financial Support	The Tanzanian government and regulators have articulated clear power-sector plans (Power System Master Plan, REA rural programs, net-metering rules, SPP standardized tariffs). These frameworks encourage new capacity additions and efficient operation. TANESCO also benefits from multilateral financing and technical assistance for infrastructure and corporate reform (e.g. World Bank's support for TANESCO's commercial management and transmission readiness	• Tariffs & Regulation: Gradual cost-reflective tariffs, performance-based regulation • Financing: Concessional loans, equity injections, liquidity facility • Private Participation: Guarantees, PPP frameworks, transparent PPA approvals. • Institutional Coordination: Joint planning platforms and fiscal oversight mechanisms

SN	CHALLENGES		
	Issue	**Description**	**Strategy**
1	Climate and Supply Risksl	Tanzania's hydropower output is highly weather-dependent. Recurrent droughts (e.g. in 2021/22) drastically reduced water inflows, undermining generation. If hydropower remains a large share of TANESCO's mix, climate variability threatens system reliability.	• Energy Mix: ensure backup capacity (thermal or imports) and accelerate renewable energy deployment. • Infrastructure: Climate-proof substations and lines; risk mapping • Operational Flexibility: Add peaking plants; enable power imports. • Forecasting & Response: Improve weather/load forecasts; develop emergency plans. • Policy & Finance: Integrate climate in planning; tap green financing
2	Infrastructure and Grid Constraints	Despite expansion, Tanzania's grid still has gaps. Many remote and high-potential sites lack adequate transmission, risking curtailment of new plants. Aging lines and transformers also raise the risk of outages	• Transmission: Upgrade aging lines, add 400 kV corridors, looped designs • Distribution: Reinforce feeders, smart automation, transformer upgrades • Grid Stability: Voltage control, reactive compensation, SCADA. • Decentralization: Mini-grids, demand-side management, embedded generation • Financing & Policy: PSMP alignment, blended financing,

3	Regulatory and Tariff Uncertainty	Balancing investment needs with affordable tariffs is politically sensitive. TANESCO may face pressure to keep tariffs low despite high project costs (e.g. the Sh6.558 trillion JNHPP). Subsidized rates and retrospective tariffs for small power producers create financial stress. Frequent policy changes or lack of consistent implementation or delayed regulation could deter private investment and complicate TANESCO's planning.	• Regulatory Engagement: Build internal capacity, support Multi-Year Technical Framework (MYTF) , participate early. • Financial Planning: Model uncertainty, cut costs, optimize capital planning. • Legal Certainty: Use regulatory compacts or formal MoUs. • Public Acceptance: Educate stakeholders, improve service transparency. • Long-Term Reform: Strengthen regulator independence and adopt performance-based frameworks.
	Financial and Currency Risks	Many of TANESCO's large projects and fuel purchases are financed in foreign currency. Tanzanian shilling depreciation can therefore inflate costs (for imported turbines, grid equipment, NG etc.), worsening the debt profile. Global energy price volatility (for NG or oil-fired generation) also threatens TANESCO's operating costs. In short, exchange rate swings and market risks could strain an already weak financial position.	• Revenue sustainability: Implement a gradual, multi-year tariff adjustment mechanism tied to actual cost structures + improved billing/collections. • Liquidity: Cash reserves, efficient budgeting, credit lines • FX risk: Currency-indexed tariffs, natural hedging, local-currency borrowing • Operational efficiency: Cut energy losses, optimize fuel & debt payments
	Competition and Technological Change	Emerging distributed energy (rooftop solar, mini grids) and increasingly efficient IPPs/SPPs introduce competition.	• Partner with IPPs/SPPs and mini-grid operators to expand and/or improve services. • Improve TANESCO's commercial services and offering new services (e.g. grid management for third-party generators, charging Electic Vehicles, Venture into 5G and fibrecom business etc.,)

2.2. Key ESI Reforms Agenda

The Electricity Supply Industry (ESI) Reform Agenda for 2025–2035 outlines a comprehensive roadmap to achieve a modern, sustainable, and inclusive power sector that supports Tanzania's socio-economic transformation. The agenda is structured around critical reform pillars aimed at improving financial sustainability, service equity, private sector participation, utility performance, regulatory effectiveness, and regional integration.

As shown in Figure 6, key areas include:

i. Tariff reforms to ensure cost-reflectivity and reduce dependency on government subsidies.
ii. Enhancing TANESCO's creditworthiness and financial discipline.
iii. Expanding transmission, distribution networks and off-grid solutions to achieve universal access, particularly in underserved areas.
iv. Streamlining private sector engagement through competitive procurement, mini-grids, and franchising models.
v. Optimizing utility operations across technical, financial, and customer service domains.
vi. Accelerating renewable energy deployment and smart grid modernization to enable a low carbon future.
vii. Strengthening regulatory institutions and transparency mechanisms such as tariff reviews; and
viii. Facilitating regional power trade through strategic interconnections and active participation in SAPP and EAPP.

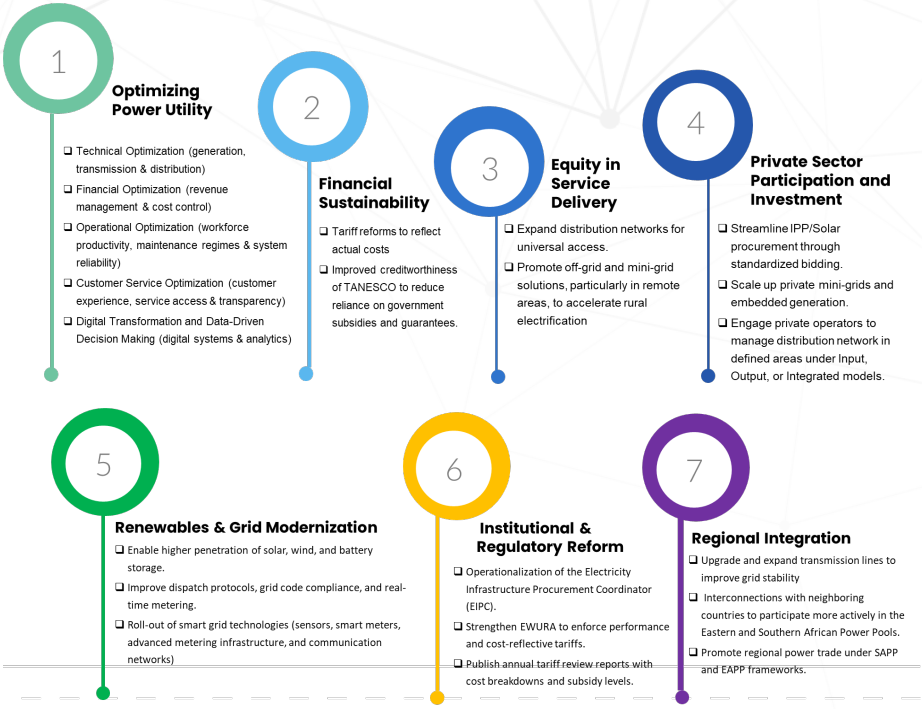


Figure 6: Key ESI reform agenda

Together, these reforms aim to build a resilient, customer-centric, and investment-friendly electricity sector that meets national needs and supports regional energy integration.

2.3. Strategic Shifts to ESI Reforms

The strategic direction of Tanzania's Electricity Supply Industry (ESI) reforms for 2025–2035 reflects a deliberate departure from rigid, one-size-fits-all reform models toward more adaptive, politically informed, and context-specific approaches. These shifts aim to align sector transformation with local realities, institutional capabilities, and long-term development goals. As shown in Figure 7, key strategic shifts include:

- Promoting locally led, incremental reforms rather than wholesale unbundling or privatization.
- Reframing private sector engagement to allow for diverse forms of participation, including joint public-private models.
- Advocating a transparent and comprehensive subsidy policy that clarifies the role and scope of fiscal transfers.
- Realigning institutional roles, particularly by returning full autonomy of construction of on-grid rural electrification to TANESCO while REA focuses on fund management.
- Embracing mixed electrification approaches—combining grid, off-grid, and mini-grid solutions to optimize access and efficiency; and
- Transitioning from passive regulation to performance-based, proactive oversight.

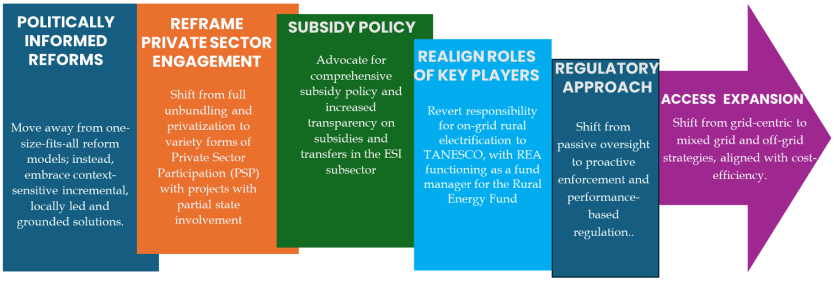


Figure 7: Strategic shifts to ESI reforms

These strategic shifts are foundational to delivering a resilient, inclusive, and sustainable electricity sector that is responsive to Tanzania's development ambitions and socio-political context.

2.4. Drivers and Objectives of the ESI Reforms

The Electricity Supply Industry (ESI) reforms for the period 2025–2035 are driven by a combination of structural, economic, and technological factors that necessitate a comprehensive transformation of Tanzania's power sector. As shown in Figure 8, key drivers include rapidly growing electricity demand due to population expansion and industrialization, the urgent need to achieve universal access, and the imperative to build investor confidence for increased private sector participation in generation, transmission, and distribution.

Figure 8: Drivers and objectives of the ESI reforms

In response to these pressures, the reform objectives aim to:

- Improve the investment climate and attract private capital,
- Expand electricity access and enhance service reliability,
- Accelerate the transition to clean and modern energy technologies,
- Strengthen TANESCO's operational and financial sustainability, and
- Enhance Tanzania's readiness for regional power trade through integration into EAPP and SAPP frameworks.

Together, these drivers and objectives form the strategic foundation for building a resilient, inclusive, and future-ready electricity sector that supports national development and regional energy cooperation.

2.5 Proposed Targets for ESI Reforms

The proposed targets for Tanzania's ESI reforms are outlined under Table 5 aligned with the National Energy Compact and the Power System Master Plan (PSMP 2024 Updates). They aim to transform the electricity sector into a reliable, sustainable, and inclusive engine for economic growth and regional competitiveness. Key targets include:

- Installed Generation Capacity: Expand from 4,182 MW to 12,500 MW by 2035, meeting growing domestic and regional demand.
- Renewable Energy: Increase the overall share of renewable energy to 75% by 2030, with a major

boost in non-hydro renewables from 2% to 45%.

- Electricity Access: Achieve universal connectivity by 2035—100% in urban and rural areas—up from a 50% national rate in 2023.
- Private Capital Mobilization: Scale up from US$0.5 billion to over US$4 billion by 2025 to support infrastructure expansion and innovation.
- Loss Reduction: Cut total system losses from 14.6% to 11.5%, with notable reductions in both transmission and distribution segments.
- Power Reliability and Availability: Improve power plant availability to 90% and reduce SAIFI and SAIDI values to meet or exceed international benchmarks.
- TANESCO Financial Performance: Achieve full cost recovery by 2035, rising from a current recovery rate of 80%.
- Customer Satisfaction: Introduce and raise the Customer Satisfaction Assessment Tool (CSAT) index to 75% by 2030 and 80% by 2035.
- Energy Consumption: More than double per capita electricity consumption from 243 kWh/year to 528 kWh/year by 2030.
- Private Sector Participation: Expand private sector market share to 20% in generation, 5% in transmission, and 10% in distribution by 2035.
- Electricity Exports: Grow the share of electricity exported from less than 0.1% to 15–20% by 2035, positioning Tanzania as a net power exporter.

These targets are pivotal for achieving a resilient, financially viable, and climate-aligned electricity supply industry that supports Tanzania's development aspirations and regional integration goals.

Table 5: ESI reform targets (2025-2035)

Indicator	Baseline	Targets		Benchmark
	2025	2030	2035	
Installed Generation Capacity	4,181.71 MW	11,822.39 MW	12,500.00 MW	N/A
Increase Share of Renewable Energy (RE)	61.8%	75%	75%	N/A
Share of RE (non-hydro)	2%	45%	45%	N/A
Increase Electricity Connectivity Rate	50%	87% (national) 100 %(urban) 74% (rural)	100% (national) 100 % (urban) 10% (rural)	100%(national) 100% (urban) 100% (rural)
Amount of Private Capital Mobilized	US$0.5 billion	US$4.039 billion	No target	N/A

Reduction of Energy Losses	14.61% (System Losses) 5.86% (Transmission) 8.75 % (Distribution)	12.49% (System Losses) 5.0% (Transmission) 7.49 % (Distribution	11.5% (System Losses) 4.5% (Transmission) 6% Distribution	10% (System Losses)
Power Plant Availability	83.5%	90%	90%	85-90%
Power reliability	Transmission SAIFI: 3.89 interruptions/ year Transmission SAIDI: 2.83 hours/year Distribution SAIFI:11 interruptions/year Distribution SAIDI: 18.8 hours	Transmission SAIFI: 7 interruptions/year Transmission SAIDI: 3.94 hours/year Distribution SAIFI: 14.7 interruptions/ year Distribution SAIDI:<16.66 hours	Transmission SAIFI: 5 interruptions/year Transmission SAIDI: 3.44 hours/year Distribution SAIFI: 4.7 interruptions/ year Distribution SAIDI:<10.66	Transmission SAIFI: < 10 interruptions/ year Transmission SAIDI: < 6–8 hours/year Distribution SAIFI: 15–20/year Distribution SAIDI:20–30 hours/ year
TANESCO Cost Recovery Ratio	80%	≥ 90%	≥ 100%	≥ 100%
Customer satisfaction index (CSAT)	55.6%	75%	80%	75-85%
Increased per capita energy consumption	243kWh/year	528kWh/year	No target	~4,700 kWh/year (for upper-middle-income countries)
Private sector market share in electricity delivery system	9% (Generation) 0% (Transmission) < 1% (Distribution)	15% (Generation 2% (Transmission) 5% (Distribution)	20% (Generation 5% (Transmission) 10% (Distribution)	N/A
Share of Generation Exported	< 0.1%	~12–15%	~15–20%	5–15% (varies by country)

2.6. Stakeholders' Expectations

The ESI reforms for 2025–2035 are being implemented in a dynamic context, with growing electricity demand, climate imperatives, technological innovation, and increased public scrutiny. Stakeholders across the electricity supply industry—ranging from government institutions and regulators to private investors, development partners, civil society, and end-users—hold diverse but converging expectations for the next phase of reform.

Government (MoE, MoF, REA, TPDC)

- A financially sustainable TANESCO with reduced fiscal dependence.
- Expanded electricity access, especially in rural and underserved regions.
- Greater alignment with Vision 2050 and the National Energy Compact targets.
- Streamlined coordination across institutions and reform accountability.

Regulatory Authorities (EWURA, TBS)

- Clear, enforceable regulatory frameworks to support competition and quality of service
- Cost-reflective and socially balanced tariff structures.
- Capacity to monitor, report, and enforce performance benchmarks across the value chain.
- Supportive legal environment for grid and off-grid integration.

TANESCO

- Institutional stability and modern governance, with autonomy and performance-based management.
- Capital restructuring and smart infrastructure investments (e.g., CMS, AMI, SCADA).
- Greater clarity on unbundling, franchising, and public-private partnership roles.
- Recovery of operational costs and a path to financial viability.

Private Sector (IPPs, mini-grid operators, financiers, EPCs)

- Transparent, competitive procurement mechanisms for generation and distribution.
- Predictable tariff regimes and bankable Power Purchase Agreements (PPAs).
- Streamlined licensing and reduced transaction costs.
- Guarantees on payment security and dispute resolution mechanisms.

Development Partners (WB, AfDB, EU, USAID, NORAD, etc.)

- Reform ownership and institutional accountability mechanisms.
- Demonstrable impacts on access, affordability, and climate mitigation.
- Effective coordination with results-based financing (RBF) frameworks.
- Integration of gender, equity, and environmental safeguards.

Local Communities and Consumers

- Reliable, affordable, and quality electricity services.
- More inclusive access through last-mile connections and off-grid solutions.
- Transparent grievance and redress mechanisms.
- Participation in energy planning and accountability processes.

Civil Society and Academia

- Improved governance, transparency, and consumer rights in the sector.
- Greater access to energy data and reform performance reporting.
- Opportunities for independent monitoring and policy dialogue.
- Enhanced focus on climate resilience, social equity, and innovation.

In summary, stakeholders expect the 2025–2035 reforms to deliver a more efficient, equitable, and investor-friendly electricity sector. Meeting these expectations will require transparent implementation, sustained political will, and institutional coordination anchored in clear reform milestones.

03 ELECTRICITY SUPPLY INDUSTRY REFORM PATHWAY OPTIONS

Tanzania's power sector is at a crossroads, with the government considering several reform pathways for the Electricity Supply Industry (ESI) over 2025–2035. The state-owned utility TANESCO currently operates as a vertically integrated monopoly. Although its performance has improved in recent years, it still faces financial strain and service shortcomings. To address these issues, a range of Options (A through G) are proposed, for consideration depending on how the Government of Tanzania would want to realign TANESCO's operating model to improve service delivery (electricity access, connectivity and reliability) by leveraging private sector investment and expertise. It is important to note that, based on the evidence presented in the assessment report, it is assumed that Tanzania will continue to maintain a hybrid power market structure for the next 10 years. Hence the options for a monopoly or a liberalized market structure have been discounted.

These options (A through G) vary in terms of restructuring and private sector involvement. They range from improving TANESCO's internal performance (minimal structural change) to unbundling and partial privatization (major structural reform). Table 6 (below) summarizes how each option is assessed against key criteria. (In this report, "+" denotes a low score, "++" medium, and "+++" high.

Key Evaluation Criteria: The reform options are evaluated based on seven criteria derived from policy objectives (1) Competition level (opening the market to multiple players), (2) Investment and financing environment (attractiveness to private investment), (3) Renewable and decentralized energy integration (ability to integrate clean energy and innovation), (4) Access and equity (expanding electricity access and affordability), (5) TANESCO's financial sustainability, (6) Readiness for regional power trade, and (7) Political acceptability (likelihood of support from government, public, and other stakeholders).

Table 6 Comparative scoring of reform options on key criteria

Evaluation Criterion	Option A Optimal Modernized TANESCO	Option B Reorganization into Subsidiaries	Option C Distribution Franchise	Option D Distribution Concession	Option E Hybrid (A + C) Phased Approach	Option F Improved B+ (Legal Unbundling + Partial Privatization)	Option G Hybrid (D + E) Distribution Concession
Competition	+	++	++	++	+++	+++	++
Investment & Financing	+	++	++	+++	+++	+++	+++
Renewables & Decentralized Integration	++	++	++	++	+++	+++	+++
Access & Equity	++	++	++	++	+++	++	++
TANESCO Financial Sustainability	++	++	++	+++	+++	+++	+++
Readiness for Regional Power Trade	+	++	+	+	++	+++	++
Regulatory & Institutional Capacity Needs	+	++	++	+++	++	+++	+++
Political Acceptability	+++	++	++	+	+++	+	++
Implementation Complexity	+	++	++	+++	++	+++	+++
Overall Performance Balance	Moderate internal gains; limited external investment.	Structural clarity but modest efficiency impact.	Targeted efficiency with limited scope.	High efficiency but low political support.	Best balance of efficiency, investment and acceptability.	Ambitious but politically challenging.	Strong results but requires higher capacity and longer timeline.

In the following sections, each reform option (A–F) is described and analysed in detail, including its summary design, advantages, disadvantages, key risks, and performance on the evaluation criteria. This sets the stage for identifying the most balanced and feasible pathway for Tanzania's power sector reforms.

3.1. Option A: "Optimal Modernized TANESCO" (Enhanced Internal Performance)

International Examples:

- Ethiopia (EEU & EEP) – State utilities remain vertically integrated but improved efficiency through performance contracts and digital systems.
  Zambia (ZESCO) – Internal performance improvement and digital billing reforms under government ownership.

Summary Description: Option A retains TANESCO as a vertically integrated, single utility but seeks to improve its efficiency through internal reforms. Key measures include corporatization (operating more like a commercial entity), creation of strategic business units (SBUs) within TANESCO for focused performance, outsourcing non-core functions, and enforcing strict performance KPIs (key performance indicators). This is essentially a modernization of TANESCO's operations without breaking up the company or inviting private operators into core service delivery, as envisaged in its 10-year corporate strategic plan (2025-2035). The pros and cons for Option A are outlined below.

Pros	Cons
Minimal Disruption: Keeps the existing structure intact, avoiding the complex upheaval of splitting the utility. Changes are incremental, which makes implementation simpler and faster than deeper structural reforms.	Limited Competition & Innovation: TANESCO remains a monopoly under Option A. This perpetuates the lack of competition that has historically led to inefficiencies, corruption, and poor service. Without new entrants in generation or distribution, there is little external pressure to innovate or cut costs.
Improved Efficiency Focus: The corporatization and KPI-driven approach could improve operational efficiency. Clear targets for reducing losses, improving revenue collection, and customer service can sharpen TANESCO's performance culture.	Constrained Investment: Private investment is limited to existing avenues (Independent Power Producers supplying TANESCO). The utility's financial woes and monopoly status continue to make the investment climate less attractive (low score on investment). Large capital needs for generation expansion (to meet Vision 2050 targets) would still rely on government financing or debt, which is challenging given TANESCO's current debts and deficits.

Capacity Building: Internal reforms can build TANESCO's capacity and accountability. Introducing SBUs with clearer roles can make each segment (generation, transmission, distribution) more accountable for results, potentially mimicking some benefits of unbundling without breaking the company apart.	Slow Improvement Pace: Internal reforms can be slow and may not fundamentally change outcomes if not accompanied by structural change. Past reforms within TANESCO have had limited success — the monopoly structure "leads to inefficiencies, corruption and poor customer service, and simply tightening internal controls may not fully overcome these deeply rooted problems. There is a risk of "reform fatigue" if promised improvements do not materialize under the same institutional structure.
High Political Acceptability: This option is politically and socially easy to accept since it does not involve privatization or loss of government control. It avoids triggering public or labor union opposition that often accompanies privatization. Indeed, maintaining TANESCO's monopoly avoids the backlash associated with private takeovers, while still promising better service. As a result, Option A enjoys strong support from status-quo stakeholders (rated +++ acceptability).	Financial Problems Persist: TANESCO's financial sustainability might see only modest improvement. While better management can reduce operational losses, the utility would still struggle with systemic issues like below-cost tariffs and debt overhang. Without new revenue streams or equity injection, TANESCO's solvency remains fragile (low rating on financial sustainability). Essentially, Option A might stabilize the patient, but not fully cure it.

Key Risks related to Option A are outlined below.

- Execution Risk: The success of Option A hinges on effective implementation of corporate governance reforms. There is a risk that bureaucratic inertia or vested interests within TANESCO could dilute the impact of SBUs and KPIs. If managers are not truly held accountable or if political interference continues, the intended efficiency gains may not be realized.
- Insufficient Outcomes: If internal improvements fall short, public frustration could grow while the underlying structural issues remain. This option delays tough decisions like restructuring or tariff reforms. In the worst case, TANESCO's performance might not improve enough to meet Tanzania's growing demand, jeopardizing the 2050 upper middle-income and electrification goals.
- Opportunity Cost: By choosing the status quo path, Tanzania might miss the chance to attract private capital and expertise available under other options. Competitor countries that unbundled and embraced private participation have seen efficiency gains and investments (e.g. Kenya's and Uganda's reforms) — Tanzania risks falling behind if Option A's incremental changes don't keep pace.

  Summary-Criteria Scores (Option A): Our assessment is that Competition remains minimal (+) since no new market entrants are enabled. The investment environment stays weak (+) given TANESCO's unchanged monopoly and finances. Renewables integration potential is limited (+) — while TANESCO can still contract IPPs for renewables, the lack of structural change means no new push for decentralized solutions. Access & equity might see moderate progress (we mark it ++): a more efficient TANESCO could modestly accelerate new connections, but funding constraints remain. Financial sustainability is only slightly improved (+) because internal

savings alone likely won't resolve large debts. Regional trade readiness stays low (+); an insular, financially weak utility is less ready to trade power regionally. Political acceptability is Option A's strength (+++), as it aligns with the government's cautious approach so far (maintaining a state monopoly).

3. 2. Option B: "Reorganization into Subsidiaries" (Generation & Service Delivery Utilities)

International Examples:

- Kenya (KPLC, KenGen, KETRACO) – Corporatization and functional separation under state holding; improved governance but still state-owned.
- Uganda (UEGCL, UETCL, UEDCL) – Legal unbundling under government ownership.

Summary Description: Option B restructures TANESCO into a holding company with distinct subsidiary companies for generation and for "service delivery" (encompassing transmission and distribution). In this model, TANESCO remains parent company, but its operations are split: a new Generation Utility (covering all generation, potentially named Tanzania Power Generation Company, TPGC) and a Service Delivery Utility for transmission & distribution (provisionally Tanzania Power Services, TPS). Existing entities would be realigned accordingly – for example, the Tanzania Geothermal Development Co. (TGDC) would fold into the generation subsidiary, and any transmission/distribution projects companies (e.g. ETDCO, TCPMC) would merge into the service utility. All subsidiaries remain 100% state-owned under TANESCO but operate with more autonomy and clear separation of generation vs. network functions. The pros and cons for Option B are outlined below.

Pros	Cons
Focused Operations: Splitting into a GenCo and a TPS (service utility) allows each side to focus on its core mandate. Generation can concentrate on power production capacity and efficiency, while the service utility focuses on network reliability and customer connections. This specialization often leads to performance improvements as management and finances of each segment become more transparent.	No New Capital or Competition: Option B stops short of bringing in any private investment or new market entrants. The sector remains a state monopoly in practice (just split internally). Thus, the investment environment is only marginally better than Option A – private capital still cannot directly invest in distribution or the generation utility (until a later step). Any funding must come from the government or loans, which does not solve TANESCO's capital constraints.
Transparency and Accountability: With separate accounts for generation and distribution, Option B improves transparency in TANESCO's finances. Cross-subsidies and losses can no longer be masked in a single vertically integrated ledger. Clear financial separation can highlight problem areas (e.g. if distribution losses are dragging the company down) and enable targeted interventions. Over time this could enhance financial discipline and sustainability (moderate improvement).	Complex Implementation: Setting up and managing subsidiaries can introduce new complexity. There may be duplication of functions (each entity needing its own management, IT systems, etc.) and potential coordination issues between the generation and network arms. If not managed well, this could lead to bureaucratic inefficiencies or internal turf wars. In some cases, halfway unbundling can simply add administrative cost without major performance gains.

Foundation for Competition: While Option B itself does not introduce private players, it readies the sector for future competition. A standalone generation subsidiary can contract with IPPs on more equal footing (potentially benchmarking performance). Similarly, a distinct distribution/ transmission arm can be regulated more easily. This provide a good foundation for unbundling is it is something the Government would still want to pursue. Option B is a step in that direction, creating a structure were introducing competition or investors later (as in Option F) becomes more feasible.	Limited Immediate Efficiency Gains: While transparency improves, the same entrenched challenges remain – political interference, overstaffing, low tariffs – just now in two companies instead of one. Without market pressure or profit motive, the subsidiaries might not automatically become more efficient. The risk is a cosmetic change where, for example, losses and delays continue as before, only now reported under separate accounts.
Maintains Public Ownership: Political acceptability is high for Option B (rated +++). The government retains full ownership and control over both subsidiaries. This means no privatization of assets and likely less public resistance. It can be presented as an "administrative reorganization" to improve service, rather than a neoliberal reform. Thus, it could garner support as a logical efficiency move, even from those wary of private sector involvement.	No Direct Improvement in Service Quality Yet: Customers may not see noticeable improvements in the short term. Since no private operators or competition are introduced, improvements hinge entirely on internal reforms (like Option A). If the reorganization is not accompanied by strong performance incentives (or regulatory enforcement by EWURA), consumers could experience status quo service levels, at least initially.
Operational Efficiency Gains: Internally, each subsidiary can implement tailored KPIs, and management practices suited to their function. The generation company, for instance, can pursue cost-reflective pricing with TANESCO as an off-taker, optimize plant maintenance schedules, and plan expansion purely on generation needs. The service utility can devote attention to reducing transmission losses (currently ~5.86%) and distribution losses (~8.75% reported for TANESCO), improvingng billing, and extending the grid. These targeted improvements can cumulatively enhance overall service delivery and reduce the need for government bailouts.	Labor and Organizational Resistance: Although public acceptability is generally high (since jobs remain in a public entity), internally there could be resistance. Staff might be concerned about reassignments between new companies, changes to reporting structures, or future job security if one subsidiary is later privatized. Managing human resources and change will be critical to avoid morale problems that could undermine service in transition.

Key Risks related to Option B are outlined below

- Transition Friction: Carving out two subsidiaries from TANESCO involves asset transfers, reassigning thousands of employees, and reworking contracts. There is a risk of legal or logistical hiccups in this process. Any delay or confusion (for instance, who is responsible for a given maintenance issue during the split) could temporarily disrupt operations or project execution.
- Regulatory Gaps: Option B creates a quasi-market inside a holding company. It will be important for the regulator (EWURA) to establish clear rules for transactions between GenCo and NetCo

(e.g. a transparent power purchase agreement for TANESCO-Generation selling to TANESCO-Service Delivery). Without proper regulation, internal pricing disputes or cost-shifting could occur. Ensuring these entities operate at arm's length commercially is a governance challenge.

- Stagnation Risk: There is a strategic risk that after implementing Option B, momentum for further reform stalls. The government might declare victory on reform with this limited change and not proceed to deeper involvement of the private sector (as envisaged in later options). If Option B alone doesn't yield significant improvements, TANESCO could remain in a suboptimal limbo — reorganized but still financially strained and inefficient — yet harder to reform further due to complacency or false security.

Summary-Criteria Scores (Option B): Option B scores medium (++) on several criteria due to its partial improvements, while keeping political risk low. Competition remains effectively low (+) — no new entrants, though the structure could enable future competition. The investment environment is slightly better than A (++ in our view): clearer financials and a prospect of eventual private participation might improve investor confidence somewhat, but immediate investment flows remain limited. Renewables integration could improve to ++ — a dedicated generation company might more actively pursue diverse generation projects (including renewables), and a focused grid company can work on integrating those (e.g. managing intermittent solar/wind on the network). Access & equity stays around ++ (medium): the service utility can concentrate on last-mile connections and might better implement rural electrification programs, but funding constraints still apply (no new external funding yet). Financial sustainability is ++: transparency and focus could reduce inefficiencies, and each subsidiary can be held accountable for costs, improving overall finance modestly. Regional trade readiness rises to ++ (medium) compared to Option A: having a separate GenCo could foster regional generation projects or power exports, aligning with the goal of promoting regional trading. Finally, political acceptability is very high under Option B (+++), since it aligns with long-standing recommendations to unbundle while avoiding privatization. Our reassessment concurs — Option B is likely to face little political opposition as it retains public ownership and can be presented as modernizing TANESCO in line with national strategies.

3.3. Option C: "TANESCO Distribution Franchise" (Private Management Contracts in Distribution)

International Examples:

- India (Bhiwandi Distribution Franchise, Maharashtra) — Successful urban loss reduction; losses fell from 58% to 15%.
- Nigeria (Abuja, Ikeja Franchises) — Private operators managing specific zones under performance contracts.

Summary Description: Option C keeps TANESCO the owner of the assets but introduces private operators to manage electricity distribution in defined areas under franchise agreements. In this model, TANESCO becomes a franchisor, setting terms and performance targets, while contracting private firms (franchisees) to run day-to-day distribution operations in certain regions or customer segments. Different franchise models could be used — Input-based, Output-based, or Integrated

– referring to how the private partner's performance is measured and compensated (for example, input-based might involve the private firm purchasing bulk power and retaining revenues above a certain payment, whereas output-based might include payment for meeting connection targets, etc.). The core idea is that management of distribution is outsourced to multiple private entities, but TANESCO still owns the network and remains the single buyer of power. This is a form of Public-Private Partnership (PPP) aimed at improving efficiency at the distribution level without a full concession or sale. The pros and cons for Option Care are outlined below.

Pros	Cons
Improved Efficiency and Loss Reduction: Private distribution franchisees bring expertise and profit incentives to reduce losses and improve billing. Experience in other countries shows that management contracts or franchise arrangements can cut technical and commercial losses if structured with proper incentives. For example, a franchisee in an urban area might invest in meter upgrades and stricter bill collection, thereby improving revenue collection and reducing theft. TANESCO's own distribution losses (~8.75% officially) could be driven even lower, and collection rates improved, bolstering overall financial performance.	Fragmented Accountability: Introducing multiple operators can complicate accountability. Consumers might be confused about whether to blame the franchisee or TANESCO for issues. If the power supply from TANESCO generation/ transmission is unreliable, franchisees might underperform through no fault of their own, leading to disputes. Clear delineation of responsibilities is needed, otherwise the blame game can undermine public trust in the reform.
Expanded Access in Difficult Areas: Franchise models, especially output-based franchises, can be used to extend service to underserved areas. The government can design rural franchise contracts where private operators are incentivized (through subsidies or performance payments) to connect hard-to-reach communities. By doing so, Option C can support Tanzania's electrification and equity goals – reaching areas that TANESCO struggles to serve. The source plan even suggests using franchises for rural areas that are difficult to reach, paired with mini-grid partnerships and subsidies. This targeted approach can accelerate last-mile connectivity.	Cherry-Picking Profitable Areas: There is a risk that private firms will prefer franchises in profitable, densely populated urban areas and avoid rural or low-income neighborhoods. If not carefully managed, this could worsen inequities – leaving TANESCO with the toughest, least-profitable service areas (where private interest is low) and handing over only the revenue-rich areas to private management. That outcome would undermine TANESCO's finances and the equity goal. Contracts must be structured to either bundle diverse areas or provide incentives to serve less profitable communities.

Private Capital and Innovation without Full Privatization: Unlike selling off distribution entirely, franchising keeps assets under TANESCO ownership. This arrangement may be more politically palatable yet still attracts some private investment and new ideas. Franchisees might invest in improving local networks (transformers, lines) if the contract allows them to recover costs through improved revenues. They can also introduce innovative practices (smart metering, prepaid billing systems, customer service technology) to meet their performance targets. Such innovation fosters integration of renewables and distributed energy too – for instance, a franchisee in an off-grid prone region might deploy solar mini-grids or storage to serve customers reliably, in coordination with TANESCO.	Contract Management Demands: TANESCO (and the regulator) will need strong capacity to design, monitor, and enforce franchise contracts. This is non-trivial – setting performance targets (loss reduction, new connections, customer satisfaction) and then ensuring compliance requires new skills. If regulatory oversight is weak, franchisees might prioritize profits over public interest (e.g. neglect maintenance or charge improper fees). Without robust contract management, the potential efficiency gains of Option C might not be realized, or consumers could be mistreated.
Incremental and Flexible: Franchises can be piloted in a few areas first and scaled up if successful. They are also easier to terminate or adjust than long-term concessions – if a franchisee underperforms, TANESCO can replace them or alter terms at contract renewal. This flexibility reduces risk compared to outright privatization. It also allows competition for the market: multiple companies can bid for different regional franchises, introducing competitive pressure in the bidding stage and benchmarking of performance across regions.	Limited Scope of Change: Franchising does not address upstream issues in generation or transmission. TANESCO's generation constraints and debts remain. This option tackles distribution efficiency: it may not solve generation shortfalls or the need for large investments in generation capacity. So, while lights might stay on more often in franchise areas (due to better distribution upkeep), there could still be power shortages if generation capacity is not growing. In short, Option C is a partial solution.
Moderate Political Acceptability: Since TANESCO remains the asset owner and overall authority, franchising can be positioned as "bringing in partners to improve service" rather than selling the utility. It addresses public concerns by keeping ownership public while aiming to deliver tangible service improvements. Political acceptability is thus medium (++), higher than a full concession would be. Policymakers can showcase quick wins (like reduced blackouts or faster connections in franchise areas) to build support.	Potential Labor Resistance: Handing parts of distribution to private operators will likely face resistance from TANESCO's workforce. Employees might fear job losses or changes in employment terms if a private company takes over management. Even though in many franchise models staff can be seconded or retained, uncertainty can cause pushbacks from unions. This could reduce political acceptability if not carefully managed (through assurances or absorption of staff by franchisees under similar conditions).

Key Risks related to Option C are outlined below.

- Performance Risk: If the franchisees fail to deliver (e.g., due to mismanagement or financial troubles), service could degrade. There have been mixed outcomes with distribution franchise attempts elsewhere – some have been successful, while others ended early due to non-

performance . Tanzania must be prepared with contingency plans (like taking back control or finding a new partner) to avoid prolonged disruptions in affected areas.

- Tariff and Revenue Risk: Franchisees will collect revenue from customers and typically pay TANESCO for bulk power or a fee. If tariffs remain low or collections are poor, the economics for the franchisee may become untenable, leading them to cut corners or exit. On the flip side, if franchisees are guaranteed a margin, TANESCO might end up shouldering losses. Striking a fair risk-reward balance in contract design is challenging. A failed financial model could either scare off investors or put TANESCO in a worse financial position than before.
- Coordination with TANESCO: Franchise operators will depend on TANESCO for upstream power supply and major network investments. Poor coordination (for instance, if TANESCO doesn't deliver promised infrastructure upgrades or supply is erratic) can derail the franchise model. This interdependence is a risk — improvements in distribution won't mean much if generation and transmission remain weak. Thus, Option C must be paired with continued strengthening of TANESCO's bulk supply operations; otherwise, franchisees and consumers will be frustrated by issues outside the franchisee's control.

Summary-Criteria Scores (Option C): The introduction of private distribution management gives Option C a mix of medium (++) scores with some highs and lows. Competition level is medium (++) — while retail supply competition is still absent, multiple franchise operators mean different entities can participate in distribution (via competitive bidding and performance comparison). Investment environment improves to ++: the power sector opens to private participation in distribution, signaling a more inviting climate for investment. Some capital from franchisees could flow into network improvements, though major investment still depends on TANESCO or donor support. For renewable & decentralized energy, we rate Option C as ++: franchisees, particularly in rural or off-grid areas, are likely to incorporate decentralized solutions (solar mini-grids, storage) to meet their obligations efficiently, thereby fostering innovation in service delivery. Access & equity is a double-edged sword: poorly executed, franchises could favor lucrative areas (hurting equity, rated +), but if structured with pro-poor incentives, they can extend access. With the right design, we assume medium (++) outcome on access (better than pure private focus, but not as universal as direct public service with unlimited funding). TANESCO's financial sustainability should see medium (++) improvement: reduced losses and outsourcing operations can cut TANESCO's costs and increase net revenue. However, TANESCO will also pay franchise fees or share revenue, and it remains the guarantor of service — overall finances improve only if efficiency gains outweigh payments to franchisees. Regional trade readiness stays low (+) in Option C; changes are on the distribution side only, with no direct enhancement to generation or transmission for exports. Finally, political acceptability for Option C is moderate (++). Our assessment agrees that there may be some political resistance due to involving private companies, but it's mitigated by the fact that ownership and ultimate control stay with TANESCO. If service improvements are seen, the public may accept this model, but enthusiasm will be lower than for fully public options. Policymakers must be ready to defend the choice by demonstrating benefits to consumers (reduced outages, faster connections, etc.) in franchise areas.

3.4 Option D: "TANESCO Distribution Concession" (Private Concessionaire for Distribution)

International Examples:

- Uganda (Umeme) – Private concession since 2005; losses cut from 35% to 16%, collections > 98%.
- Senegal (SENELEC partial concession pilots) – Private management of regional distribution improved service reliability.

Summary Description: Option D goes a step further than franchising by granting a full concession of the distribution business to a private company. In this scenario, a private concessionaire would manage and operate the entire distribution network (or large regional portions of it) under a long-term contract, typically 20–30 years. It is "like Option C, but" significantly deeper – the concessionaire assumes much more responsibility, including capital investment in the distribution infrastructure, in exchange for the right to collect revenues from customers. TANESCO's role would shift to that of a wholesaler (selling bulk power to the concessionaire) and regulator/contract monitor, while the concessionaire takes charge of power delivery to end-users, maintenance of distribution assets, new connections, billing, and customer service. The assets usually remain owned by the government, but the private operator has exclusive rights to use them and expand them for the duration of the concession. Essentially, Option D privatizes distribution operations for a defined term, while generation may remain under TANESCO (with IPPs as before). The pros and cons for Option D are outlined below.

Pros	Cons
Major Efficiency Gains and Loss Reduction: A long-term concession creates strong incentives for the private operator to invest in reducing losses (both technical and commercial) and improving collection, as their profits depend on it. We have real-world evidence of such gains: for example, Uganda's private distribution concessionaire, Umeme, reduced distribution losses from ~35% at takeover in 2005 to about 16% by 2019– a dramatic improvement that benefitted the entire power sector. A similar concession in Tanzania could aggressively cut the currently modest but under-reported distribution losses, and maintain low loss levels, thus increasing the revenue available to pay generation costs and invest in network upkeep.	Low Political Acceptability & Public Resistance: Option D is essentially partial privatization of a critical public service (electricity distribution), which can be very unpopular. There may be fears of tariff increases, foreign control of assets, and job losses. In many countries, distribution concessions or privatizations have met with public protests and political pushback (e.g., the attempt to concession Ghana's ECG was ultimately canceled amid controversy) . Tanzanian stakeholders might view this as "selling out" the utility, even though assets remain public. The political acceptability is low (+) – likely the lowest among the options – given the strong ideological preference in Tanzania for public ownership and the potential nationalist narrative against foreign/private operators controlling electricity distribution.

Private Investment in the Network: Unlike a franchise, a concession typically obliges the private company to invest its own capital in expanding and upgrading the distribution network (with assets reverting to the state at contract end). This is a huge pro: Tanzania's distribution network needs significant expansion to connect millions of citizens and modernization to improve reliability. Under a concession, much of the funding burden shifts from government to the private sector. Given TANESCO's financial constraints, this infusion of private capital is crucial to achieve the targeted electricity access scale-up by 2035. It also alleviates pressure on government budgets and potentially accelerates infrastructure development (as the private firm can raise capital from investors or lenders based on the concession's revenue streams).	Job Losses and Labor Opposition: A private concessionaire would almost certainly seek to streamline operations, which could mean workforce reductions or changes in labor conditions. TANESCO's distribution employees would face uncertainty: some might be absorbed by the concessionaire, but perhaps with new performance demands or different benefits; others might be laid off. Labor unions are likely to oppose this reform vigorously, potentially staging strikes or lobbying political allies to block it. Managing the human resources transition (training, possible compensation packages, etc.) is a major challenge and a con of this model.
Improved Service & Innovation: With a profit motive to retain customers, the concessionaire would have a strong drive to improve service quality – fewer outages, timely repairs, better customer care – to reduce losses and encourage consumers to pay. They are likely to introduce innovations like smart grids, advanced metering infrastructure, and modern billing systems across the network. Integration of renewables and distributed energy can be enhanced as well: a concessionaire might invest in mini-grids or distribute solar in remote areas to fulfill connection targets at lower cost than extending the main grid. The private sector's agility can drive adoption of new technologies faster than a bureaucratic utility.	Regulatory and Contractual Complexity: A distribution concession is a complex contract that must anticipate and regulate many aspects: tariff adjustment formulas, service quality standards, investment obligations, handover conditions at end of term, etc. Tanzania's regulatory capacity (EWURA) would be tested in negotiating and overseeing such a concession. If the contract is poorly designed, the country could end up with either an under-performing monopoly (just in private hands) or frequent disputes. For instance, if costs rise and tariffs aren't adjusted appropriately, the concessionaire might under-invest or seek to renegotiate terms. Conversely, if the concessionaire is making large profits, there could be political pressure to claw back gains. Thus, ensuring a fair, transparent concession agreement and robust regulation is crucial and difficult.

Enhanced Financial Viability of the Sector: Option D can substantially improve TANESCO's financial sustainability. If structured well, TANESCO (as the bulk supplier/transmitter) gets paid regularly by the concessionaire for the power sold and no longer bears distribution losses or operating costs. A successful concession means TANESCO's role narrows to generation and transmission, which can be made financially whole with cost-reflective bulk supply tariffs. Additionally, the concessionaire might pay a concession fee or lease for the assets, providing revenue to the government. Overall, the huge drain that distribution inefficiencies placed on TANESCO's finances could be turned into a stable cash flow. This option scored High (+++) on financial sustainability in the source analysis, which our assessment supports given these points.	Risk of Private Monopoly Abuse: By granting an exclusive long-term concession, you essentially create a private monopoly in distribution. Without competition, the concessionaire might become complacent or prioritize profit over equitable service. The government must rely on regulatory enforcement to protect consumers. Any regulatory failure (due to capture or lack of expertise) could leave consumers at the mercy of a private company primarily concerned with its bottom line. Tariff increases might be necessary to ensure the concession's viability, which could be unpopular and hurt low-income households if subsidies or lifeline tariffs aren't maintained.
Potential for Regional Trade Preparation: By sorting out distribution, TANESCO can focus on generation and transmission — including interconnections. A solvent, efficient distribution operation under concession means TANESCO (or a future transmission company) can more confidently engage in regional power trading, knowing domestic revenue collection is improved. While Option D doesn't directly create competition, it aligns the sector closer to a structure where generation is separate and distribution is handled efficiently, thus indirectly supporting readiness for future regional market integration.	Outcome Uncertainty: While many concessions have succeeded, some have failed or been prematurely terminated (e.g., Dakar's water concession in the 2000s, some power concessions in Latin America during crises). If the chosen concessionaire in Tanzania under-performs or defaults on obligations (possibly due to financial difficulties, mismanagement, or unforeseen challenges), reverting the assets back to TANESCO or finding a new operator can be a costly, disruptive process. A failed concession could set back reform efforts by years and harm the credibility of the government's plans.

Key Risks related to Option D are outlined below.

- Investor Risk and Perception: For a concession to be successful, credible private firms must be willing to bid. If the process is not transparent or if the regulatory environment looks unstable, top-tier investors will shy away. Additionally, events like arbitrary government interference or hints of renationalization (as happened in Ghana's PDS case) can scare investors. The sanctity of contract is vital — a risk is if future political cycles bring pressure to alter or cancel the concession, which would damage Tanzania's investment reputation. The report on Ghana underscores how canceling a concession led to loss of donor funds and warnings that such moves harm the investment climate . Tanzania must avoid such an outcome.
- Financial Risk: The concessionaire will likely require certain financial guarantees — for example, assurance that TANESCO (or a future transmission company) will supply power and be paid, or that tariffs will adjust for inflation/costs. There is a risk that if sector finances still have gaps (e.g., if TANESCO-Generation can't supply enough power, or if global fuel prices spike and tariffs lag), the concession model could face financial shortfalls. In such cases, either the government might

have to bail out the concessionaire or consumers suffer deteriorating service. A delicate balance of risk-sharing must be achieved in the contract to mitigate this, but residual risk remains.

- Exclusion of TANESCO from Distribution: Over a long concession, TANESCO as an organization might lose distribution expertise and capacity. If, after 20–30 years, the government wanted to re-assume control or change the model, it may find that its internal capacity in distribution operations has atrophied. In other words, there's a long-term strategic risk in outsourcing an entire segment of the business for decades. This makes the initial choice of partner and contractual terms even more critical, as reversing course is hard.

Summary Criteria Scores (Option D): Option D fares very well on technical and financial criteria but poorly on political. Competition is medium (++) at best – while the distribution segment gets a new operator, it's a single concessionaire (per region or nationwide), so competition is limited to the bidding stage, not in daily service. Investment & financing is a clear High (+++): this option would unlock significant private investment into the grid, relieving government burdens and improving financing for expansion. Renewables & decentralized integration we assess as ++: the concessionaire's incentives to meet demand and connect customers could encourage integration of renewables (especially if they have connection targets in off-grid areas), but their focus will be on core distribution network first. Access & equity can be medium to high (++): the concession contract can mandate connection targets across all customer categories and regions, leading to widespread access gains. However, there's a caveat – if not enforced, a profit-driven operator might still focus on high-return customers; thus, equity outcomes depend on regulatory vigilance. TANESCO's financial sustainability is significantly improved (+++): with distribution offloaded, TANESCO can become financially stable by focusing on generation/transmission and securing payments from the concessionaire. Regional trade readiness remains low (+) directly (distribution reform doesn't automatically enable exports), but indirectly TANESCO's healthier finances and focus on generation could make regional projects more attainable (perhaps warranting a ++ in the long run). Political acceptability is the weakest point for Option D, rated Low (+). We concur – this option would be hard to sell politically in Tanzania's context, given historical reluctance to privatize TANESCO and potential public mistrust. It could face significant hurdles in implementation unless carefully managed with stakeholder buy-in, public education on benefits, and perhaps seeing it as a last resort to solve chronic issues if all else fails.

3. 5. Option E "Hybrid (A + C) Phased Approach" (Modernization + Targeted Franchising)

International Examples:

- Bangladesh (DESCO, REB model) – State-led reform combining improved public utility performance with cooperative/private franchise areas.
- Ghana (Northern Electricity Company pilot franchise) – Gradual introduction of private operators.

Summary Description: Option E is a phased reform strategy that combines Option A and Option C. In practice, this means strengthening and modernizing TANESCO internally (Option A) for a few

years, and then gradually introducing distribution franchises (Option C) in selected areas. In practice, during 2025–2028 TANESCO would be corporatized, restructured into SBUs, and performance improved (i.e. implement all measures from Option A). Then in 2029–2035, distribution franchising (DF) is rolled out in chosen urban and rural areas. The selection of franchise areas is strategic: urban zones with strong demand and good revenue potential (to quickly improve efficiency and reduce losses), and rural or remote areas where TANESCO finds it difficult to extend service (to leverage private innovation and partnerships like mini grids). TANESCO under Option E essentially becomes a modernized utility with a mix of direct service and franchised service areas, maintaining overall system planning and bulk power roles while private partners handle some distribution operations. It's a compromise model aiming to capture the benefits of private sector participation without a wholesale leap. The pros and cons for Option B are outlined below.

Pros	Cons
Balanced, Stepwise Reform: Option E arguably offers the best of both worlds in a controlled manner. Phase 1 (Optimal TANESCO) ensures the utility's house is in order – improving operational efficiency, financial management, and regulatory capacity – before bringing in private distributors. This reduces the risk of franchise failure, because TANESCO will be a stronger partner and off-taker by 2029. Phase 2 (Distribution Franchises) then injects private sector efficiencies where they are most needed or likely to succeed, informed by lessons from the first phase. This staged approach allows mid-course corrections and capacity building, making the reform more likely to succeed overall.	Slower Impact on Urgent Issues: The phased nature means some benefits of reform are delayed. During 2025–2028, while internal improvements are underway, the fundamental market structure remains the same. If TANESCO's issues are dire, waiting four years to introduce private efficiency in distribution could prolong suffering (continued load shedding, financial losses, etc.). In other words, Option E might be too cautious if dramatic action is needed sooner
Targeted Private Participation: By carefully choosing franchise areas, Option E can address specific challenges. For instance, franchising out high-loss urban districts can dramatically improve loss reduction and collections where TANESCO historically struggled. Meanwhile, franchising in rural areas, coupled with subsidies or mini-grid partnerships, can accelerate electrification for communities that might otherwise wait many years for the main grid. This targeted impact approach means improvements in competition, efficiency, and access are achieved exactly where they are most needed, rather than a blanket approach.	Complex Coordination of Phases: Managing a two-phase reform can be complex. The government must commit to follow through on Phase 2, otherwise Option E just becomes Option A by another name. There's a risk that after Phase 1, either due to political change or complacency, the franchising phase could be delayed or watered down, failing to materialize the intended benefits. Each phase also requires different skill sets: Phase 1 is about internal change management; Phase 2 is about contract tendering and regulation of private partners. Ensuring continuity and consistency over a decade is challenging.

Maintains Public Oversight & Equity: Even as private entities take on a role, TANESCO (and the government) retains oversight and control of the pace of reform. Option E explicitly calls for integrating a customer protection framework for low-income and vulnerable groups as franchises are introduced. This indicates strong emphasis on access and equity — ensuring that the poor are not left behind or exploited in the franchised areas. The government can design franchise contracts with pro-poor requirements (such as life-line tariffs, mandatory connection targets in low-income neighborhoods, etc.) and monitor them closely. By not completely relinquishing the entire distribution to private hands, TANESCO can also cross-subsidize or support areas under its direct service if needed, preserving an overall equity in service.	Results Depend on Implementation Quality: As with any mix-and-match approach, the devil is in the details. A poorly executed Option E could combine the downsides of both approaches (bureaucratic delays from internal reforms plus confusion or conflict with private partners) without fully realizing the upsides. For instance, if KPI enforcement in Phase 1 is weak, TANESCO may not actually improve; then franchisees in Phase 2 inherit the same problems. Or if franchise contracts are poorly designed, you could get little private investment while still having an underperforming TANESCO in other areas — a lose-lose. Thus, Option E requires careful, high-quality execution at each step, which can be demanding on institutional capacity.
Political Feasibility Through Gradualism: Phasing changes makes them more digestible. Early successes in internal reform (Phase 1) can build confidence among stakeholders for the later introduction of private partners. Moreover, initial franchises can be small pilots — their positive results can be showcased to win over skeptics (demonstrating, for example, improved outage management or customer service by a franchisee). Because the reform is incremental, there's less of a shock to the system; politicians can adjust the speed or extent of franchising based on public response. This likely gives Option E a higher political acceptability (rated ++) than a one-shot privatization. Essentially, it's reform by evolution, not revolution — which tends to encounter less opposition.	Fragmentation of the Network Operation: During the franchising phase, TANESCO will be directly managing some areas and overseeing private partners in others. This mixed model can present operational challenges. There may be inconsistencies in service quality or processes between franchised and non-franchised regions, potentially causing public perception issues ("why is region X better served than region Y?"). TANESCO will need to maintain strong communication and perhaps competition/ benchmarking between its own units and franchisees to ensure overall performance rises and not only pockets of excellence.

Retention of Future Flexibility: Option E does not preclude moving to other models later. If franchises perform exceptionally well, Tanzania could consider deeper concessions or even privatization in the long term, armed with local experience. Conversely, if some franchises underperform, TANESCO can pause or refine the strategy without having compromised the entire system. TANESCO also remains intact as a corporate entity (unlike full unbundling), which means if the environment changes (e.g., the discovery of major gas reserves enabling a different approach, or regional market integration necessitating a strong national utility), the country hasn't irreversibly dismantled its utility. This flexibility is a strategic advantage in an uncertain future.	.
Partial Competition: While franchises introduce private players, Option E still doesn't create a fully competitive market. TANESCO remains the single buyer and a dominant player. If TANESCO's corporatization in Phase 1 falls short, it may undermine Phase 2 – e.g., a still-weak TANESCO might not manage franchisees well, leading to problems. Additionally, franchisees won't compete directly with each other within the same area, so the competitive pressure is limited (mostly during procurement). The overall market structure remains a hybrid-monopoly, which may eventually hit limits in efficiency gains compared to deeper liberalization.	

Key Risks related to Option E are outlined below.

- Political Backtracking: If there is a change in government or political winds between Phase 1 and Phase 2, the franchising plan could face pushback. A new administration might be less supportive of private sector involvement, halting the reform at Option A. This risk is especially pertinent if the initial phase's improvements reduce the urgency for further change, leading politicians to declare victory prematurely. Continual stakeholders buy-in are needed through the decade to mitigate this.
- Private Sector Interest: There's a risk that by 2029, the appetite among private firms to take franchises in Tanzania might be low if, for example, earlier reforms in the region or in Tanzania have had mixed outcomes. Ensuring that franchise opportunities are attractive (reasonable profit potential, clear regulations) is crucial. If tenders for franchises fail to attract competent operators, Option E could stall.

  Regulatory and Contractual Readiness: Just like Option C and D, the success of the franchising phase rests on good contracts and regulation. If Tanzania doesn't use the intervening years to build regulatory capacity and draft solid PPP frameworks, it may not be ready to manage the franchisees

effectively when the time comes. This risk is somewhat mitigated by the explicit mention in Option E of capacity building for the regulator (EWURA) and PPP units during Phase 1 — a wise step. The plan is to prepare institutions to handle complex contracts by the time they are needed, and that preparation must indeed happen to avoid pitfalls.

Summary Criteria Scores (Option E): Option E is designed to achieve balanced, high scores across most criteria, making it a strong all-around performer. Competition: We assign medium (++) — better than pure monopoly, but still a single-buyer market with selective private entry. Investment environment: Medium-to-High (++) — internal reforms improve TANESCO's creditworthiness, and phased PPPs gradually open the sector to more private finance. However, since large-scale privatization isn't immediate, the investment climate improves steadily rather than dramatically. Renewables & decentralized integration: High (+++) — this option explicitly encourages innovation. By modernizing TANESCO (which can better integrate large-scale renewables) and using franchises in off-grid/rural areas, it leverages both centralized and decentralized clean energy solutions. The emphasis on mini-grids and partnerships in rural franchise areas will help integrate solar, battery, and other innovations at the edge of the grid. Access & equity: High (+++) — Option E addresses access on multiple fronts. TANESCO's strengthened capacity plus targeted franchises with output-based connection targets means accelerated electrification. The inclusion of a customer protection framework ensures that low-income consumers benefit from improvements rather than being left out. This dual approach likely achieves the broadest access gains while safeguarding equity among all options. TANESCO financial sustainability: Medium-to-High (++) — during Phase 1, internal efficiency will reduce costs and losses; Phase 2's franchises will further improve collections and reduce the need for TANESCO to fund every network expansion. TANESCO will still be carrying generation and some distribution, but improved performance and private sector burden-sharing should significantly strengthen finances (if not as radically as an outright concession or IPO would). Readiness for regional trade: Medium (++) — by 2035, TANESCO (still integrated but leaner) could be more regionally oriented. However, since Option E doesn't unbundle generation or fully corporatize transmission separately, the readiness for large-scale exports might not be as high as Option F. It will depend on how effectively TANESCO uses its improved capacity — hence we consider it moderate. Political acceptability: Medium (++), possibly the best among options that involve private sector. Because it is incremental and maintains a strong role for the public sector, we anticipate manageable political support, especially if early phases show clear benefits. Indeed, by splitting reform into two phases, the government can build a success narrative that carries political momentum forward. Overall, Option E is a well-balanced compromise, scoring well on most criteria and avoiding the extreme lows that more radical options face in acceptability.

3.6. Option F: "Improved B+" (Legal Unbundling + Partial Privatization of Generation)

International Examples:

- Kenya (KenGen IPO) – 30% privately listed, government retains majority.
- South Africa (Eskom unbundling plan) – Generation, transmission, distribution separation underway.

Summary Description: Option F builds upon the structural separation of Option B and then goes further by introducing private ownership in the generation segment. It entails legally unbundling TANESCO into two distinct companies – a Generation company and a Transmission/Distribution (Service Delivery) company – and then partially privatizing the Generation company via an IPO (Initial Public Offering). In concrete terms, the reform would proceed in stages: 2025–2030, optimize and reorganize TANESCO internally, forming the generation subsidiary (TPGC Ltd) and service delivery subsidiary (TPS Ltd) as in Option B. Then 2030–2033, formally separate these subsidiaries into independent companies, fully unbundling generation from network operations. Finally, 2033–2035, the government would float a minority stake (likely 10%–30%) of the Generation company on the stock market through an IPO. The government retains majority control, but private investors (potentially including strategic investors, institutional and the public via shares) become co-owners of the generation company. The end state of Option F is a partially privatized GenCo competing for investment, alongside a state-owned grid company that remains in charge of transmission and distribution (possibly with regulated monopoly status). This is akin to models seen in some countries, where the generation utility is listed on the stock exchange (e.g., Kenya's KenGen is ~30% privately owned) while the transmission/distribution utility remains state-owned. The pros and cons for Option F are outlined below.

Pros	Cons
Unlocks Capital for Generation Expansion: Partial privatization via IPO can inject much-needed capital into the generation sector. Selling 10–30% of TPGC's shares to private investors (local or international) provides immediate proceeds that can be used to fund new power plants or pay down debt. Moreover, as a publicly listed company, the Generation company can more easily raise additional capital in the future (through secondary share offerings, corporate bonds, etc.) without relying on government guarantees. Tanzania's goal of reaching 11,822.39 MW by 2030 (from 4,031.71 MW in 2025) underscores the massive investment need – Option F directly addresses this by tapping equity markets. This is a big advantage over options that keep generation 100% state-owned and capital constrained.	Complex and Lengthy Process: Option F is the most complex reform, involving legal, financial, and organizational challenges. Unbundling a utility legally requires dividing assets, liabilities, and personnel between the new companies. This can be contentious (who gets what assets, how to split existing debts, etc.). Following that, preparing a company for IPO is an extensive process: it requires audited financial records, regulatory approvals, valuation of assets, prospectus preparation, and marketing to investors. Any misstep can delay or derail the IPO. The timeline given (about 8–10 years for full implementation) is long, and there is execution risk at each stage.

Improved Efficiency and Transparency in Generation: With private shareholders in the mixed stock market listing, the Generation company will be under pressure to perform efficiently and profitably. It must publish accounts, answer independent board members and regulators, and meet shareholder expectations. This often drives significant efficiency gains and professionalism (as seen in other partially privatized utilities). Additionally, legal unbundling ensures transparency – costs and revenues of generation are separate from wires business. This eliminates internal cross-subsidies and makes tariff-setting more rational (e.g., clearly identifying how much of the tariff is for generation vs. network). The generation company can benchmark itself against IPPs and focus on cost-competitive power production, which could lower long-term generation costs.	Market Appetite and Valuation Risks: A successful IPO depends on market conditions and investor appetite. There is a risk that when Tanzania tries to float TPGC, the market may undervalue it or there might be insufficient demand – especially if sector regulation (e.g., tariff regime) is seen as unfavorable. If the generation tariffs are not cost-reflective or if TANESCO's past financial woes haven't been fully resolved, investors will be cautious. A failed or deeply discounted IPO could be embarrassing and possibly leave the utility under-capitalized. Furthermore, issuing shares means paying dividends to private shareholders, which is a new expense – if not offset by efficiency gains, this could strain the company's finances.
Maintains Strategic Control while signaling Reform: One of the political selling points is that the government keeps a controlling stake (70–90%) in the GenCo. So, the state retains strategic control over generation assets, which is important for national energy security. However, by giving up some ownership and inviting the public and investors in, it sends a strong signal of commitment to reform and efficiency. It's like "having your cake and eating it too" – you leverage market discipline and capital while still being the majority owner. For political moderates, this can be an attractive middle ground between full privatization and full state ownership.	Partial Privatization Might Not Be Enough: Selling 10-30% is a small privatization; while it brings some benefits, it may not be a panacea. The government remains majority owner, so political interference could continue, and major decisions might still be driven by political rather than commercial logic. Some experts argue that without a strategic investor taking a larger stake, the governance improvements may be limited. In other words, an IPO held mostly by dispersed shareholders can exert only so much pressure; government as 70-90% owner still calls most shots. If deep reforms in corporate culture do not accompany the share sale, the GenCo could end up with mixed incentives.

Potential for Competitive Generation Market: With generation legally separated, Tanzania could more easily move to a multi-buyer or wholesale market in the future. Even with the single-buyer model initially, having an independent GenCo and existing IPPs sets the stage for competition in generation. For example, new generation projects could be set up as IPPs or as part of GenCo's expansion, whoever offers better terms. Over time, this could evolve into a competitive bidding or auction framework for new power plants, enhancing competition level (one reason Option F scores well on competition relative to A–E). An IPO also diversifies ownership – thousands of shareholders (perhaps even Tanzanian citizens via the stock exchange) become stakeholders, which can create a constituency for further liberalization.	No Private Participation in Distribution: Option F focuses on generation. The transmission and distribution company (TPS Ltd) remains fully state-owned and carries all the legacy issues of TANESCO's network business (though hopefully improved by prior restructuring). While generation capacity and efficiency might grow, the distribution segment remains a bottleneck if not also addressed. For example, even if generation is adequate, if the distribution company is inefficient or cash-strapped, there could be problems evacuating power and collecting revenue. Option F could result in an advanced generation sector but a lagging distribution sector, unless parallel reforms (like some franchising or performance contracts in distribution) are implemented. In essence, Option F might underachieve on reducing distribution losses or improving customer service compared to options that directly tackle distribution (C, D, or E).
Enhanced Regional Trade and Investment Profile: Option F positions Tanzania strongly for regional power trading and partnerships. An independent, partially private generation company can pursue projects in neighboring countries or joint ventures more flexibly. It can sign export contracts without the conflict of also being the system operator or distributor. Meanwhile, the transmission/ distribution company, being separate, can focus on building interconnections and wheeling power regionally. The move is in line with regional utility reform trends and would likely be viewed positively by international investors and development partners.	Public Concern and Perception: Selling shares of the national utility can be controversial. There may be public fear that this is the start of full privatization, or that foreigners will end up owning national assets. Although the plan is to retain majority state ownership, communication is key to avoid backlash. Additionally, if shares are listed on the Dar es Salaam Stock Exchange, ensuring Tanzanian citizens have access to purchase (to promote local ownership) will be politically important. The government must manage perceptions to maintain acceptability. Historically, privatizations in Tanzania (and many African countries) have met suspicion; even though Option F is partial, it won't be immune to such sentiments.

3. 7. Option G: Hybrid (D + E) Distribution Concession

International Examples:

- Uganda (Umeme concession) – Proven model for private operation with public asset ownership.
- India (Franchise Concession progression) – Franchise areas gradually converted into regional private concessions.
- Morocco (Lydec, Redal concessions) – Private regional concessions under strong state oversight.

Summary Description: The combined Option D + E proposes a sequenced reform that merges TANESCO's internal modernization with a gradual transition toward regional private distribution

concessions. In Phase 1 (2025–2028), TANESCO would implement corporate restructuring, digitalization (including Advanced Metering Infrastructure – AMI), loss-reduction programs, and performance-based management reforms while piloting a few targeted distribution franchises. In Phase 2 (2029–2035), successful franchise areas would evolve into long-term private concessions (20–30 years), in which private concessionaires assume operational responsibility and invest capital to upgrade and expand networks. TANESCO would act as bulk-power supplier, system planner, and contract monitor, while retaining ownership of all physical assets. This hybrid approach combines the efficiency and investment benefits of a concession (Option D) with the flexibility and political feasibility of a phased franchise rollout (Option E). he pros and cons for Option F are outlined below.

Pros	Cons
Progressive Private Investment and Efficiency Gains: The model attracts private capital gradually, beginning with pilot franchises and culminating in full regional concessions once systems mature. This phased entry encourages early efficiency improvements in billing and loss reduction while allowing TANESCO time to strengthen financial discipline and digital readiness.	Coordination and Continuity Risks: Managing a decade-long two-phase reform demands strong institutional memory and consistent political commitment. Shifts in leadership or policy priorities could disrupt the transition between franchising and concession stages.
Improved Service Quality and Innovation: Concessionaires have performance-based incentives to cut losses, modernize customer service, and invest in grid reliability. Early AMI deployment enables real-time monitoring, theft detection, and accurate billing, building the data foundation for future smart-grid operations.	Complex Regulatory and Contractual Demands: Each phase requires robust legal frameworks and technical oversight. EWURA and TANESCO must be prepared to manage multiple contracts, enforce service standards, and resolve disputes efficiently.
Enhanced Financial Sustainability for TANESCO: As private partners assume operational and capital burdens in distribution, TANESCO's role narrows to generation, transmission, and bulk supply. Regular payments from concessionaires stabilize cash flow and improve creditworthiness.	Investor Confidence and Risk-Sharing Challenges: Long-term private investment depends on credible tariff-setting, transparent regulation, and enforceable contracts. Weak regulatory assurance or currency risk could deter reputable investors.
Political and Social Acceptability Through Gradualism: By sequencing reforms, the government avoids the shock of sudden privatization. Demonstrated success in pilot areas can build public confidence before larger concessions are introduced, easing ideological resistance.	Labor Adjustment Pressures: Workforce restructuring and transfers to private operators may face union resistance. Without careful transition plans, this could delay implementation and erode public support.
Accelerated Access and Technology Uptake: Private concessionaires can expand connections more rapidly, including to peri-urban and rural areas, supported by targeted subsidies or output-based incentives. Their flexibility encourages integration of renewables and distributed energy solutions.	Risk of Uneven Service Quality: During transition, differences may emerge between TANESCO-managed and concession-managed regions, potentially creating perceptions of inequity unless strong performance benchmarking is maintained

Key Risks Related to Option G (D + E)

- Political Backtracking: Changes in government or ideology could stall the shift from pilot franchises to full concessions.
- Regulatory Readiness: If EWURA and TANESCO do not build sufficient PPP oversight capacity during Phase 1, Phase 2 contracts could face compliance or enforcement gaps.
- Financial Exposure: Concessionaires may seek guarantees or tariff adjustments to cover unforeseen costs; failure to define clear risk-sharing mechanisms could expose the Treasury.
- Public Perception and Communication: Misunderstanding of the phased privatization concept could trigger opposition unless framed as a partnership to improve service, not a sale of assets.

Summary Criteria Scores for Option G: Option G (Option D + E) performs strongly across most reform criteria, offering a balanced mix of efficiency, investment, and political feasibility. It creates moderate competition through regional concession bidding and attracts substantial private financing for network expansion, easing fiscal pressure on government. The model promotes renewable integration and smart technologies through AMI-enabled operations, while output-based incentives ensure equitable, pro-poor access. TANESCO's financial sustainability is enhanced by stable bulk-supply revenues and reduced losses, and its improved creditworthiness strengthens readiness for future regional power trade. Politically, the gradual, partnership-oriented approach maintains public ownership, builds stakeholder confidence, and ensures broad reform acceptability.

3.8. Comparison of Options and Key Trade-offs

The seven reform pathways analyzed under Section 5.5 present a continuum of choices between maintaining full public control and embracing private sector participation, and between incremental operational improvements and deep structural transformation. The comparative analysis reveals several important insights and trade-offs;

a. Depth of Reform vs. Political Feasibility

There remains a clear inverse relationship between the depth of reform and its political acceptability. Options A and B—focused on internal modernization and structural reorganization—are politically straightforward but deliver limited efficiency and investment gains. At the other end, Options D and F—centered on long-term concessions and partial privatization—offer the greatest potential for efficiency and capital mobilization but face strong political and stakeholder resistance. Options C, E, and G lie in the middle ground, combining internal reforms with phased private participation. Among them, Option E (Hybrid A + C) strikes the best balance, offering meaningful improvements while maintaining public confidence and control. Trade-off: Tanzania must balance the need for rapid efficiency and investment improvements with the political and social realities that favor a gradual, consensus-driven reform path.

b. Focus of Reform (Generation vs. Distribution)

Different options emphasize different parts of the electricity value chain. Option F focuses on generation unbundling and partial privatization, while Options C, D, and G emphasize private participation in distribution. Options A, B, and E focus on integrated modernization across TANESCO's entire operations. Tanzania's challenges—aging infrastructure, technical losses, and uneven access—span the full chain. A narrow focus on either generation or distribution

alone risks creating new bottlenecks. Option E's hybrid approach is distinct in addressing both ends of the chain: internal strengthening of TANESCO's generation and transmission functions (Phase 1), followed by targeted private engagement in distribution (Phase 2). This sequenced coverage provides a practical pathway to align efficiency, supply reliability, and customer service

c. Financial Sustainability and Investment Mobilization

Options D, E, F, and G clearly outperform A, B, and C in mobilizing new financing. Option D channels private capital into distribution networks; Option F does so for generation; and Option E integrates both but at a manageable, gradual scale. Option G extends this trajectory by transforming mature franchise areas into long-term concessions. By contrast, Options A and B depend heavily on government budgets and efficiency savings, which cannot sustain large-scale grid expansion or generation investment. Given TANESCO's fiscal pressures and debt exposure, the government cannot rely solely on public resources. Thus, Option E's blended approach, which brings in private resources progressively while preserving public oversight, offers the most realistic route toward financial sustainability and reduced fiscal burden.

d. Service Delivery and Access

From a citizen's perspective, reform success will be measured by supply reliability, service quality, and new connections. Options C, D, E, and G explicitly target improved customer outcomes through private management incentives, performance-based contracts, and service-level targets. These models can deliver quicker gains in loss reduction, response time, and electrification compared to internal-only reforms (A and B). Option E stands out by pairing system reliability (through modernization) with pro-poor connection drives in franchised areas. Option D can achieve similar gains but risks uneven benefits without accompanying generation growth. Conversely, Option F could enhance supply adequacy but has limited direct impact on last-mile service. In effect, Option E combines improved reliability and expanded access, offering the broadest, most equitable customer impact.

e. Complexity and Risk Management

Simpler models (A and B) are easy to execute but unlikely to solve long-term problems. Complex models (D and F) carry higher risks due to contractual, regulatory, and political challenges. Option E, by design, spreads complexity over time—beginning with achievable internal reforms before introducing private operators in pilot areas. This staged design allows lessons learned, institutional strengthening, and public trust to build gradually. Option G represents a natural evolution of Option E once regulatory and technical readiness improves.

Risk mitigation: Tanzania's most prudent course is a phased and adaptive reform sequence—for example, implementing Options A and B first (to modernize and reorganize TANESCO), then Option E (to introduce franchising), and eventually transitioning to Option G or F once capacity and investor confidence mature.

In summary, Options A and B provide stability and control but insufficient transformation. Option C offers moderate private efficiency gains in distribution, while Option D could deliver large-scale investment at the cost of political difficulty. Option F focuses on generation and market liberalization but is currently too ambitious. Option G achieves major efficiency and financing improvements

but requires higher institutional readiness. In contrast, Option E (Hybrid A + C Phased Approach) provides the most balanced and context-appropriate path for Tanzania—achieving steady progress in efficiency, access, and investment through internal modernization and controlled private participation. Its success will depend on consistent execution, regulatory discipline, and stakeholder alignment over a decade-long reform horizon.

3.9. Conclusion and Recommendations on the ESI Reform Pathway (2025-2035)After weighing the comparative analyses of all seven reform pathways, the recommended pathway for Tanzania is Option E – the Hybrid Phased Approach, which combines internal modernization of TANESCO with targeted, well-regulated private sector participation in distribution.

This recommendation reflects a balanced evaluation of performance, feasibility, and implementation readiness in Tanzania's political, economic, and institutional context.

Balanced and Sustainable Improvement: Option E delivers broad-based progress across all key reform criteria—efficiency, investment, access, renewables integration, and financial sustainability—without incurring the political and social costs of more radical options. It enhances competition modestly through franchise bidding, mobilizes private investment at a manageable pace, integrates renewable and decentralized energy solutions, expands electricity access, and strengthens TANESCO's finances through improved collections and operational discipline. Importantly, these benefits are achieved while keeping political opposition low and maintaining public ownership of strategic assets. No other single option performs as consistently well across the diverse national goals outlined in TDV 2050. It is both comprehensive and context-appropriate—addressing internal inefficiencies through corporatization and KPIs, while improving service delivery through phased franchising.

Political and Social Feasibility: Option E's phased design ensures reforms are ambitious but politically realistic. By avoiding "shock therapy," it allows the government to build trust and demonstrate success before expanding private participation. Early improvements under Phase 1—such as reduced losses, faster connections, and better customer service—can showcase results and strengthen public confidence in TANESCO. Subsequent franchising in select areas can then be presented not as privatization, but as partnerships to improve service, maintaining national ownership and oversight. Each step can be accompanied by stakeholder consultations, regulatory reviews, and public communication, thereby ensuring continuity of support across political cycles. This contrasts sharply with the disruptive backlash that full concessions or privatization (Options D and F) have triggered in other countries.

Risk Mitigation and Flexibility: The Hybrid Phased Approach is inherently adaptive and risk-mitigating. Phase 1 acts as a controlled pilot: if internal modernization falls short, corrective measures can be taken before scaling. Conversely, if TANESCO achieves strong turnaround performance, the franchising phase can be adjusted—focusing only on strategic or underserved areas. Option E also leaves future reform pathways open: once institutional and market maturity improve, Tanzania can evolve naturally toward Option G (regional concessions) or Option F (partial generation privatization). In essence, Option E creates a reversible, learning-oriented framework that strengthens the sector while retaining strategic flexibility in an uncertain global and regional energy landscape.

Focus on Access and Equity: Tanzania's national development priorities—universal electrification and inclusive growth—require a reform model that protects low-income households and remote communities. Option E embeds these social objectives directly into its design. Through output-based franchising, private operators would be incentivized to extend access to rural and low-income areas, supported by REA subsidies and pro-poor tariff mechanisms. At the same time, a modernized TANESCO will be better equipped to execute public electrification programs efficiently. This integrated approach ensures the reform is citizen-focused and equitable, not just commercially successful.

Institutional and Capacity Development: Option E directly strengthens the capacity of Tanzanian institutions. In Phase 1, TANESCO develops a performance-based management culture and modern corporate systems. In Phase 2, EWURA, MoE, and PPP units gain hands-on experience managing franchise contracts, service regulation, and performance audits. This progressive skill-building ensures that by the mid-2030s, Tanzania will have both a reformed, commercially disciplined utility and strong regulatory and PPP institutions capable of overseeing more advanced market structures. By contrast, deeper privatization options (e.g., D or F) risk bypassing local capacity-building opportunities and over-relying on external operators.

Recommended Phased Implementation

1. Phase 1 (2025—2028): TANESCO Modernization and Corporatization
    - Corporatize TANESCO under a holding structure with SBUs for generation, transmission, and distribution.
    - Implement management performance contracts, loss-reduction programs, AMI deployment, and financial restructuring.
    - Achieve measurable results in billing, collection, service reliability, and connection times.
    - Strengthen EWURA's regulatory framework and MoE's PPP oversight capacity.
2. Phase 2 (2029—2035): Targeted Distribution Franchising
    - Tender pilot franchises in selected urban areas (e.g., Dar es Salaam South, Mwanza, Arusha) to improve efficiency and collections.
    - Launch rural or peri-urban franchises/PPP partnerships where grid expansion is costly, combining REA support with mini-grid integration.
    - Institutionalize customer protection mechanisms (lifeline tariffs, grievance systems) to ensure affordability and fairness.
    - Maintain TANESCO's bulk supply and planning role while ensuring knowledge transfer from franchisees to TANESCO-run regions.
3. Phase 3 (Mid-2030s Onwards): Reassessment and Evolution
    - Evaluate outcomes of internal reform and franchising.
    - If successful, transition high-performing regions into regional distribution companies or concessions (Option G) and consider partial listings (Option F) to attract long-term capital.
    - Maintain focus on transparency, regulatory independence, and consumer protection as reforms deepen.

Note the subsequent sections of the strategy are aligned with the implementation of the recommended Option E.

04 IMPLEMENTATION OF RISKS AND MITIGATION MEASURES

This section presents the Implementation of Risks and Mitigation Measures of the recommended ESI reform pathway, to help the MoE and its stakeholders to anticipate potential problems, minimize negative impacts, and ensure the successful execution of the ESI strategy

4.1. Risks and Mitigation Measures

Option E's hybrid nature makes it relatively robust and adaptable, but success depends on strong governance, phased discipline, and capacity building. Risks are mitigable if planning is deliberate and inclusive, contracts are well-designed, and political and regulatory institutions remain committed over the 10-year period. Table 7 risks and mitigation measures for Option E – the Hybrid Phased Approach (Modernized TANESCO + Targeted Distribution Franchises) – covering both Phase 1 (2025–2028) and Phase 2 (2029–2035).

Table 7: Risks and mitigation measures

Category	Risk Description	Phase	Risk Level	Mitigation Measures
1. Weak Implementation Capacity	TANESCO may fail to enforce KPIs, restructure effectively, or deliver internal reforms in Phase 1.	Phase 1	Medium–High	• Provide capacity building and technical assistance for performance management. • Recruit reform-oriented leadership and enforce accountability via contracts. • Engage external experts for change management.
2. Reform Backtracking	Political change or waning commitment may derail Phase 2 (Franchising) after Phase 1 success.	Phase 2	High	• Secure cross-party and long-term stakeholder support early. - Embed franchising in national energy policy and sector investment plans. • Establish legally binding roadmaps and donor-linked reform benchmarks.
3. Franchise Mismanagement	Franchised private operators may underperform or exploit contract loopholes.	Phase 2	High	• Design robust franchise contracts with clear KPIs, penalties, and performance-linked payments. • Develop strong monitoring capacity within TANESCO and EWURA. • Pilot franchises first and scale based on performance.

Category	Risk Description	Phase	Risk Level	Mitigation Measures
4. Uneven Service Quality	Mixed operation (TANESCO in some areas, franchisees in others) may lead to inconsistent customer experiences.	Phase 2	Medium	• Establish common national service standards and benchmarking. • Publicly report performance metrics across regions to encourage accountability. • Use competition for the market (e.g. rebidding underperformance areas).
5. Labor Resistance	Opposition from TANESCO employees and unions fearing job losses in franchised areas.	Phase 2	Medium	• Ensure labor consultation and participation in franchise transition planning. • Require franchisees to absorb existing staff with fair terms. • Offer retraining and redeployment options within TANESCO.
6. Tariff and Affordability Concerns	Public fears of tariff hikes due to private involvement may erode support.	Phase 2	Medium	• Maintain regulatory oversight by EWURA on end-user tariffs. • Implement a Customer Protection Framework for low-income and vulnerable groups. • Introduce performance-based subsidies for rural or low-revenue areas.
7. Coordination Failure	Misalignment between TANESCO (bulk supplier) and franchisees could affect service.	Phase 2	Medium	• Establish clear service-level agreements (SLAs) between TANESCO and franchisees. • Create a coordination task force and escalation protocols. • Hold joint operational planning forums.
8. Regulatory Weakness	EWURA may lack capacity to regulate private franchisees effectively.	Both	Medium–High	• Provide donor-funded regulatory training and PPP contract advisory support. • Strengthen EWURA's legal mandate to monitor franchises. • Establish an independent dispute resolution mechanism.

Category	Risk Description	Phase	Risk Level	Mitigation Measures
9. Unequal Access or Cherry-Picking	Franchisees may focus on profitable urban areas, neglecting rural or poor regions.	Phase 2	High	• Use output-based contracts with mandatory rural and pro-poor connection targets. • Cross-subsidize rural franchises with urban surplus or government/donor funds. • Require bundled service areas (mix of high and low return zones).
10. Delayed or Fragmented Rollout	Slow or poor sequencing between Phase 1 and Phase 2 could erode momentum.	Transition	Medium	• Align reforms with a clear, time-bound national implementation plan. • Conduct mid-term reviews (2028, 2032) to adjust timelines. • Link franchise rollout to TANESCO reform performance milestones.

05 STAKEHOLDER MAPPING

This section covers stakeholder mapping which includes a detailed outline of the roles and responsibilities of ESI stakeholders and stakeholder analysis. Stakeholder analysis outline individuals and groups who can impact or are impacted by ESI reforms, their needs and expectations to ensure future ESI reform objectives align with stakeholder interests, leading to increased buy-in, reduced risks, and ultimately, a higher chance of achieving the intended objectives.

5.1. Complex Stakeholders interactions and their influence

Stakeholder Map highlights the breadth and complexity of actors whose roles, interests, and capacities intersect across the reform landscape—from public institutions and regulators to private investors, financiers, civil society organisations, and development partners. Managing this ecosystem requires more than coordination; it demands a deliberate and sustained strategy to build alignment, trust, and shared commitment toward a national energy future that is resilient, inclusive, and economically sound.

The starting point for this strategy is strengthened coordination across government institutions. The Ministry of Energy, Ministry of Finance, the Planning Commission, and the Treasury Registrar (TR) each hold important mandates that shape sector policy, fiscal decisions, and governance oversight. Without internal alignment, even well-designed reforms may struggle to gain traction or produce lasting results. Clear and unified communication—both within government and in engagements with the private sector and development partners—is critical. This is particularly important where reforms are likely to impact multiple institutions simultaneously, such as in tariff restructuring, public-private partnerships, or utility performance frameworks. By ensuring consistent positions and shared priorities, government strengthens its ability to steer reform, manage expectations, and uphold national ownership of the transition process.

A central concern emerging from the stakeholder map is the structure of sector financing and the systemic underrepresentation of local financial actors. While development finance institutions and external lenders have provided vital capital, Tanzania must now position local financing as a pillar of energy sector sustainability and national energy security. The country's overreliance on foreign currency debt has exposed utilities to exchange rate volatility, constrained project viability, and limited the role of domestic banks and pension funds. To address this, the government may wish to adopt a differentiated capital strategy—encouraging foreign currency finance for import-heavy infrastructure while actively mobilising local currency finance for domestic project components. Local commercial banks, social security institutions, and the Dar es Salaam Stock Exchange must be deliberately engaged in this effort, not only as financiers but as strategic partners in

securing Tanzania's long-term energy future. The inclusion of local capital markets is not merely a financial imperative; it is a governance choice that reflects a broader commitment to building national resilience and embedding reform within Tanzanian institutions.

As reforms progress, the Government must also manage the evolving relationship with development partners. The stakeholder map makes clear that donors and DFIs influence the sector through a networked model—providing technical assistance, concessional finance, and policy dialogue, often across multiple layers including ministries, civil society, and the private sector. While this layered engagement has brought significant benefits, it also carries risks if not guided by a coherent national framework. Stakeholder management in this context involves maintaining a clear line of sight over all externally supported initiatives, aligning them with national priorities, and coordinating messages across government entities. Importantly, domestic research institutions and civil society should be empowered to play a more visible role in informing reform decisions, thus ensuring that policy dialogue remains rooted in Tanzanian knowledge systems and accountable to national constituencies.

One of the most strategically sensitive areas of stakeholder engagement is the relationship with local private investors, particularly those involved in large-scale generation and transmission. These actors hold significant influence, given their financial capacity, market access, and proximity to policy processes. Their actions can either facilitate reform or entrench resistance, depending on how their incentives align with sector objectives. The Government's approach should therefore promote structured partnerships—such as joint ventures with international developers—while ensuring that participation is conditioned on transparency, compliance, and value creation. The Dar es Salaam Stock Exchange offers further opportunities to broaden ownership, improve corporate governance, and embed local investor confidence in the sector's trajectory. A balanced approach is required—one that acknowledges the role of domestic capital and entrepreneurship while safeguarding against monopolistic practices or policy capture. Reform should remain anchored in principles of openness, competitiveness, and public benefit.

No stakeholder is more critical to the implementation of reform than TANESCO. At the heart of the stakeholder map, TANESCO connects government strategy with regulatory enforcement, financial flows, and service delivery. Its operational reach and institutional memory are assets to be leveraged, yet past experiences show that internal resistance—if left unaddressed—can significantly slow or derail reform momentum. To avoid this, stakeholder management must include a deliberate internal engagement strategy within TANESCO. This involves regular dialogue, inclusive consultation, and clearly communicated reform pathways that recognise the concerns and contributions of staff. Organisational transformation should be framed not as a threat to livelihoods, but as a necessary evolution to meet national energy needs and deliver greater service quality to Tanzanians. Reform should be sequenced to allow internal alignment, capacity building, and morale preservation.

Looking forward, stakeholder management must be understood as an ongoing process, not a single event. As Tanzania advances its energy transition agenda, stakeholders will evolve, new actors will emerge, and market dynamics will shift. The Stakeholder Map should therefore be treated as a

living tool, regularly updated to reflect emerging interests, risks, and leverage points. The goal is not merely to manage stakeholders, but to enable them—to create the institutional conditions under which each actor can contribute meaningfully to a shared national vision. Tanzania's electricity sector reform is ultimately a test of alignment: between national ambition and stakeholder engagement, between investment needs and social inclusion, and between urgency and institutional readiness. By investing in thoughtful, forward-looking stakeholder management, the Government strengthens its ability to deliver a sector that is not only transformed—but nationally rooted, financially sustainable, and resilient for generations to come.

5.2. Roles and Responsibilities of ESI Stakeholders

The successful implementation of the ESI reforms requires coordinated engagement of a diverse range of stakeholders across government, private sector, civil society, and development partners. A comprehensive mapping identified over 100 key entities, categorized into 12 functional groups with national and regional priorities, financially sustainable, and socially accountable. Tables I- XII provides the full categorization and roles of each entity.

I. Executive and Central Government Leadership	
Entity	**Role**
President's Office	Provides national strategic direction for reform.
Prime Minister's Office (PMO)	Oversees inter-ministerial implementation.
Vice President's Office (VPO)	Leads climate/environmental mainstreaming.
Planning Commission	Aligns ESI reforms with national development strategy (Vision 2050).
Ministry of Energy (MoE)	Leads ESI reforms, sector policy, coordination, and supervision.
Ministry of Finance (MoF)	Manages fiscal oversight, budgeting, and donor coordination.
PO-RALG	Coordinates LGAs on electrification and franchise rollout.
Ministry of Water	Supports water–energy nexus planning, especially for hydro-based power development and infrastructure coordination.
II. Legal, Judicial, Oversight and Anti-Corruption Institutions	
Entity	**Role**
Attorney General's Office	Provides legal oversight and opinion on reform matters.
Office of the Solicitor General	Reviews government contracts (PPAs, PPPs).
Fair Competition Commission (FCC)	Enforces competition policy in the power sector.
Fair Competition Tribunal (FCT)	Adjudicates competition-related disputes.
National Audit Office (NAOT)	Audits public spending and reform programs.

Parliamentary Committee (Energy and Minerals)	Provides legislative oversight of reform progress.
Prevention and Combating of Corruption Bureau (PCCB)	Prevents and investigates corruption in procurement and reform implementation.
Judiciary	Handles legal disputes, upholds contractual enforcement, and provides interpretation of
III. Regulatory and Market Institutions	
Entity	**Role**
EWURA	Regulates licensing, tariffs, quality, and PPA approvals.
PPP Centre	Oversees design and procurement of PPPs in distribution and generation.
CMSA (Capital Markets and Securities Authority)	Regulates IPOs and capital raising in the energy sector.
DSE (Dar es Salaam Stock Exchange)	Hosts share listings of TANESCO or other power sector firms.
IV.Public Utilities and Power Market Entities	
Entity	**Role**
TANESCO SBUs (GenCo, TransCo, DisCo)	Operate corporatized internal unbundled units.
ZECO	Manages electricity operations in Zanzibar; coordinates with mainland.
Transmission System Operator (TSO)	Grid operations, reliability, and dispatch.
Market Operator (MO)	Manages power market transactions and settlements.
Independent System Operator (ISO)	Future neutral operator to oversee grid if unbundled.
Energy Information and Planning Center (EIPC)	Coordinates national data and planning systems.
Rural Energy Agency (REA)	Implements rural electrification and mini-grid programs.
Rural Energy Fund (REF)	Finances REA's access programs.
TPDC	Supplies gas to power plants and coordinates fuel security.
V. Private Sector Actors	
Entity	**Role**
Independent Power Producers (IPPs)	Build large generation assets.
Small Power Producers (SPPs)	Sub-10 MW distributed generation.

Very Small Power Producers (VSPPs)	Micro/mini grid-scale generators.
Mini-grid Operators	Serve rural/off-grid communities.
Private Distribution Franchisees	Operate licensed zones under PPPs.
Developers and Contractors	Design and build infrastructure.
Tanzania Private Sector Foundation (TPSF)	Advocate for private sector participation.
Tanzania Chamber of Commerce, Industry and Agriculture (TCCIA)	Represent businesses and SMEs in the ESI.
Confederation of Tanzania Industries (CTI)	Represent large industrial consumers and power users.
Tanzania Investment Centre (TIC)	Facilitate investment and fast-track approvals.
Small and Medium Enterprises (SMEs)	Contribute to decentralized energy delivery and innovation.
Tanzania Startup Association (TSA)	Foster digital, metering, and fintech energy solutions.
VI. Financial Institutions	
Entity	**Role**
Local Commercial Banks	Offer local currency working capital and project finance.
Local Development Banks	Provide targeted long-term finance for infrastructure.
Development Finance Institutions (DFIs)	Provide concessional and blended capital for IPPs, mini-grids, PPPs.
TCIA (Tanzania Climate Investment Alliance)	Coordinates climate-aligned energy investment.
VII.Professional, Technical and Digital Institutions	
Entity	**Role**
Contractors Registration Board (CRB)	Certifies infrastructure firms.
Engineers Registration Board (ERB)	Certifies engineering professionals.
COSTECH	Leads research and technology development.
e-Government Authority (eGA)	Supports digital transformation of utilities.
Media Council of Tanzania (MCT)	Ensures media support for transparency and reform awareness.
VIII. Labor and Civil Society	
Entity	**Role**
Trade Union Congress of Tanzania (TUCTA)	Represents worker interests during reform transitions.

TANESCO Workers Council	Represents staff during internal restructuring.
Civil Society Organizations (CSOs)	Monitor equity, participation, safeguards.
TAREA (Tanzania Renewable Energy Association)	Promotes renewable policy and industry support.
AMDA (Africa Minigrid Developers Association)	Represents private minigrid developers.
IX. Education, Research and Training	
Entity	**Role**
Universities, VETA, Research Institutions	Build skills, conduct research, and support workforce transition.
X. Regional and Continental Bodies	
Entity	**Role**
AU (African Union)	Coordinates continental infrastructure and energy policy.
EAC (East African Community)	Supports power trade and harmonization.
SADC (Southern African Development Community)	Promotes integration via SAPP.
SAPP (Southern Africa Power Pool)	Enables southern regional power trading.
EAPP (Eastern Africa Power Pool)	Supports East African energy cooperation.
XI. Security and Stability Agencies	
Entity	**Role**
TPDF (Defense Force)	Protects strategic energy assets.
Tanzania Police Force	Ensures law and order during projects or protests.
TISS (Intelligence Services)	Monitors risks to national energy stability.
XII. Coordination and Reform Implementation Bodies	
Entity	**Role**
Inter-Ministerial Technical Committee (IMTC)	Oversees cross-sector reform coordination.
Compact Coordination/ESI Reform Steering Committees	Aligns development partner funding and reporting.

5.3. Stakeholders Analysis

The successful implementation of Tanzania's Electricity Supply Industry (ESI) reforms depends on a diverse network of stakeholders with varying degrees of interest, influence, and risk exposure. A detailed stakeholders analysis shows sstakeholder positions range from supportive to mixed, with high influence actors concentrated in government, utilities, and regulatory bodies. Below is the summary of key findings from stakeholder analysis.

a. Executive and Central Government (e.g., President's Office, MoE, MoF) – These hold high interest and influence, critical for setting reform direction, approving budgets, and ensuring inter-ministerial alignment.
b. Legal and Oversight Bodies (e.g., Judiciary, FCC, PCCB) – They safeguard transparency and legal integrity. Delays or disputes at this level can significantly hinder progress
c. Regulatory and Market Institutions (e.g., EWURA, CMSA) – Tasked with creating an enabling environment for competition, tariffs, and market supervision. These actors are broadly supportive and influential.
d. Public Utilities and Power Market Entities (e.g., TANESCO, ZECO, REA) – Central to operational reform but face internal resistance. Their role is both strategic and sensitive.
e. Private Sector (e.g., IPPs, SPPs, TPSF) – Highly interested in reform outcomes but constrained by regulatory and procurement uncertainties. They are key to expanding generation and distribution capacity.
f. Financial Institutions – Including local banks and DFIs, these actors are motivated by bankable project pipelines and stable financial returns, but face risks from creditworthiness and policy gaps.
g. Technical and Digital Agencies – Their role in quality assurance, digitalization, and local content enforcement is essential for service reliability and innovation.
h. Labour and Civil Society – Mixed in support, with labour unions wary of job losses and civil society focused on inclusivity, accountability, and fair tariffs.
i. Education and Research Institutions – Play a foundational role in building capacity and aligning training to sector needs.
j. Regional Bodies – Their engagement is crucial for power trade and regional grid integration. Misalignment could jeopardize cross-border benefits
k. Security Agencies and Coordination Bodies – Ensure infrastructure stability and effective implementation across sectors.

Ensuring effective engagement, risk mitigation, and aligned incentives will be crucial to achieving reform goals by 2025 and beyond. Table 8 below provides a detailed stakeholder analysis matrix for reference.

Table 8. Stakeholder Matrix for ESI reforms

Stakeholder Category	Stakeholders	Risk/Impact (possible issues, actions of the stakeholder that might hinder smooth execution of the ESI Reforms)	Interest (their stake or vested interest in the success, activities, or outcomes of ESI reforms)	Position	Level of Interest in the ESI Reforms	Level of Power Influence on the ESI Reforms
Executive and Central Government Leadership	• President's Office • Prime Minister's Office (PMO) • Vice President's Office (VPO) • Planning Commission • Ministry of Energy (MoE) • Ministry of Finance (MoF) • PO-RALG • Ministry of Water	Delays or resistance at high policy levels could derail reform timelines and budget approvals	Policy alignment, energy access, fiscal sustainability, service delivery improvements	Supportive	High	High
Revolutionary republic of Zanzibar	• Ministry of Water, Energy and Minerals • ZECO • ZURA	National reforms promoting cost-reflective tariffs may face inconsistency if ZECO's tariffs remain politically set or unaligned, affecting bulk supply cost recovery and cross-subsidization frameworks. Delays or defaults in ZECO's payments for bulk electricity could exacerbate TANESCO's cash flow issues, affecting its financial turnaround and investor confidence.	Secure stable and affordable electricity imports from TANESCO; Integration into national and regional energy planning (e.g. interconnection projects; Access to national renewable energy programs and policy incentives; Participation in national energy dialogues and planning frameworks (e.g., Power System Master Plan, National Energy Compact)	Supportive	High	Moderate

Stakeholder Category	Stakeholders	Risk/Impact (possible issues, actions of the stakeholder that might hinder smooth execution of the ESI Reforms)	Interest (their stake or vested interest in the success, activities, or outcomes of ESI reforms)	Position	Level of Interest in the ESI Reforms	Level of Power Influence on the ESI Reforms
Legal, Judicial, Oversight and Anti-Corruption Institutions	• Attorney General's Office • Office of the Solicitor General • FCC • FCT • NAOT • Parliamentary Committee (Energy and Minerals) • PCCB • Judiciary	Legal challenges, delays in contract approval, or oversight bottlenecks could delay implementation	• Legal integrity, Oversight, transparency, anticorruption in procurement and PPAs	Neutral to Supportive	Medium	High
Regulatory and Market Institutions	• EWURA • PPP Centre • CMSA • DSE	Weak enforcement or regulatory capture could result in market failures or unfair competition	• Ensuring competitive markets, tariff regulation, quality assurance and consumer protection	Supportive	High	High

Stakeholder Category	Stakeholders	Risk/Impact (possible issues, actions of the stakeholder that might hinder smooth execution of the ESI Reforms)	Interest (their stake or vested interest in the success, activities, or outcomes of ESI reforms)	Position	Level of Interest in the ESI Reforms	Level of Power Influence on the ESI Reforms
Public Utilities and Power Market Entities	• TANESCO SBUs (GenCo, TransCo, DisCo) • ZECO • TSO • IMO • ISO • EIPC • REA • REF • TPDC	Internal resistance to restructuring, labour unrest or inefficiencies could impede reform successes	Operational restructuring, corporatization, service delivery targets, financial viability	Mixed (Some resistance within utilities)	High	High
Private Sector Actors	• IPPs • SPPs • VSPPs • Mini-Grid Operators • Private Distribution Franchisees • Developers, Service Providers &Contractors • TPSF • CCIA • CTI • TIC • SMEs • TSA	Unclear investment frameworks or regulatory uncertainty could deter participation or increase costs	Market entry, return on investment, clarity in PPPs, access to fair and transparent procurement	Supportive	High	Medium

Stakeholder Category	Stakeholders	Risk/Impact (possible issues, actions of the stakeholder that might hinder smooth execution of the ESI Reforms)	Interest (their stake or vested interest in the success, activities, or outcomes of ESI reforms)	Position	Level of Interest in the ESI Reforms	Level of Power Influence on the ESI Reforms
Financial Institutions	• Local Commercial Banks (e.g., CRDB, NMB, TCB etc.,) • Local Development Banks (e.g., TIB-Development) • DFIs • TCIA	Limited access to bankable projects or unclear financial models could restrict lending.	Project financing opportunities, credit risk management, investment-grade reform outcomes	Supportive	High	Medium
Professional, Technical and Digital Institutions	• CRB • ERB • COSTECH • eGA • MCT	Poor quality standards, weak capacity, or lack of digital systems could affect service reliability.	Standards, capacity building, local content enforcement, digital innovation	Supportive	Medium	Medium
Labour and Civil Society	• TUCTA • TANESCO Workers Council • TAREA • CSOs (e.g., Hakirasilimali, Policy Forum, TANGSEN) • AMDA	Labor strikes or civil society opposition could generate political backlash or reform delays.	Job security, social equity, reform inclusivity, tariff fairness, accountability	Mixed (labor may resist change)	High	Medium

Stakeholder Category	Stakeholders	Risk/Impact (possible issues, actions of the stakeholder that might hinder smooth execution of the ESI Reforms)	Interest (their stake or vested interest in the success, activities, or outcomes of ESI reforms)	Position	Level of Interest in the ESI Reforms	Level of Power Influence on the ESI Reforms
Education, Research and Training	• Universities • VETA • Research Institutions	Lack of alignment between education/research and sector needs could hinder capacity development.	Capacity building, curriculum alignment, research and innovation funding	Supportive	Medium	Low
Regional and Continental Bodies	• AU • SADC • EAC • SAAP • EAPP	Failure to align regionally could undermine power trade benefits or interconnection plans.	Regional power trade, integration, interoperability, regional energy diplomacy	Supportive	Medium	Medium
Security and Stability Agencies	• TPDF • TPF • TISS	Security gaps could lead to sabotage or disruption of strategic infrastructure.	Maintaining security of strategic infrastructure, stability during transitions	Neutral	Low	High
Coordination and Reform Implementation Bodies	• IMTC • ESI Reform Steering committee • National Energy Compact Coordination Team	Weak coordination or overlapping mandates could slow decision-making and reduce reform coherence.	Effective cross-sector coordination, performance tracking, donor alignment, institutional reform	Supportive	High	High

06 COMMUNICATION STRATEGY OF THE ESI REFORM

This section presents the communication strategy/plan of the proposed ESI reforms (2025-2035) building on the findings from the stakeholder analysis under section 6

6.1. Communication Strategy

The stakeholder communication strategy categorizes stakeholders based on their power and interest in Tanzania's Electricity Supply Industry (ESI) reforms and prescribes tailored engagement methods to enhance participation, transparency, and accountability.

- High Power—High Interest stakeholders (e.g., President's Office, MoE, MoF, TANESCO, EWURA, IPPs, DFIs) are managed closely through strategic dialogues, policy briefs, and progress reports, with quarterly engagement led by the Ministry of Energy. Key messages emphasize financial viability, governance, and reform leadership.
- High Power—Medium/Low Interest stakeholders (e.g., Judiciary, AG Office, FCC, TPF, TISS) are kept satisfied via legal updates and compliance consultations, coordinated bi-annually by the Ministry's legal directorate, stressing institutional stability and legal compliance.
- Medium Power—High Interest stakeholders (e.g., TPSF, SMEs, labour unions, mini-grid developers, CSOs) are supported and informed through participatory forums, dashboards, and public scorecards. Engagement is quarterly and highlights transparency and investment opportunities.
- Medium Power—Medium Interest stakeholders (e.g., CMSA, DSE, ERB, regional bodies) are monitored through annual technical consultations and coordination meetings, focusing on standardization and innovation, coordinated by EWURA.
- Low Power—Medium/High Interest stakeholders (e.g., universities, communities, media) are kept informed through ongoing outreach such as education campaigns and social media, with TANESCO and REA handling implementation. Messages target access, equity, and local empowerment.

This structured approach ensures inclusive stakeholder involvement and consistent communication throughout the reform process. Table 9 below provides a detailed breakdown of communication strategy

Table 9: Communication Strategy of the ESI Reform

Stakeholder category	Strategy	Examples of stakeholders	Engagement Style	Tools	Frequency	Responsible Institution	Key Messages
High Power-High Interest	Key Players-Manage them closely	• President's Office • MoE • MoF • MLHHSD • MoW • Ministry of Agriculture • TANESCO • EWURA • IPPs • DFIs	• Strategic Dialogue • Formal Consultations	• Policy Briefs • MoUs • Progress Reports	Quarterly	Ministry of Energy-Commissioner for Electricity & Renewable Energy,	Reforms ensure financial viability, access, and governance leadership.
		• Ministry of Water, Energy and Minerals (The Revolutionary Government of Zanzibar) • ZECO • ZURA		• Policy Briefs • MoUs	Quartely	Ministry of Energy-Commissioner for Electricity & Renewable Energy,	Tarif reforms, alignment in planning, regulatory harmonization, and investment mobilization.
High Power - Medium/Low Interest	Keep Satisfied	• Judiciary • PCCBAG Office • FCC • TPDF, TISS, TPF	• Legal Updates • Compliance Consultations	• Circulars • Legal Memoranda • Audit Reports	Bi-annually	Ministry of Energy-Director of Legal Services	Legal and institutional compliance essential to stable sector reform.
Medium Power – High Interest	Support and inform	• TPSF, CTI • TRC • SMEs • Mini-grid Developers • Labour Unions • CSOs • Financial Institutions	• Workshops • Forums • Participatory Dialogues	• Newsletters • Working Groups • Dashboards • Public scorecards	Quarterly	Ministry of Energy-Commissioner for Electricity & Renewable Energy	Inclusive participation, transparency, and investment opportunities

Stakeholder category	Strategy	Examples of stakeholders	Engagement Style	Tools	Frequency	Responsible Institution	Key Messages
Medium Power – Medium Interest	Monitor	• CRB, ERB • CMSA • PPRA • TRA • BoT • DSE • COSTECH • eGA • EAC, SADC	• Technical Consultations • Standards Alignment	• Technical Reports • Coordination Meetings	·Annually	EWURA-Director General	Support technical standards, innovation, and regional coordination.
Low Power - Medium/ High Interest	Keep Informed	• Universities • VETA • Local communities • General Public • Media	• Public Outreach • Education Campaigns	• Radio • Infographics • Social Media • Public Meetings	Ongoing during reform phases	Public Relations Units/departments at TANESCO & REA	Improved access, fairness, local employment, and consumer voice

07 RESOURCE REQUIREMENTS FOR THE ESI STRATEGY

This section covers the estimation of the resources required to implement the ESI-SR 2025-2035. These include the human resources requirements, key areas for institutional capacity building and financial resources requirements.

7.1. Human Resource Requirement

Successful implementation of the reforms under Option E depends on the availability of personnel with requisite knowledge and skills. Table 10 outlines the Human resource requirements to implement the ESI reforms. The GoT commits to create a conducive environment to attract necessary personnel both from within the country and the diaspora to manage the transformation.

Table 10: Human resource requirements for implementation of the ESI strategy (2025-2035)

Total Estimated Human Resource Needs	
Category	**Estimated Total Positions (2025–2035)**
Core government and utility staff (new or reassigned)	70–100
Private franchisee workforce (by 2035)	1,500–2,500
Short-term advisors and consultants	20–30 (across different phases)

Immediate Phase (2025)			
Institution	**HR Needs**	**Roles and Responsibilities**	**Type**
Ministry of Energy (Reform Unit)	6–8 reform coordinators and analysts	Develop roadmap, manage inter-agency coordination, draft policy briefs	Contracted + seconded
TANESCO HQ	4–6 corporate strategy staff	Lead corporatization, SBU structuring, and change management	Internal + consultants
EWURA	2–3 policy/legal officers	Begin preparatory work on franchise regulatory framework	Internal
PPP Unit (MoFP/ MoE)	2–4 PPP specialists	Structure Option E within PPP legal framework, initiate early contract prep	Donor-supported advisors

Short-Term Phase (2025–2027)			
Institution	**HR Needs**	**Roles and Responsibilities**	**Type**
TANESCO	12–18 performance managers, SBU heads, internal auditors	Operate Gx, Tx, Dx units; enforce KPIs; track loss reductions	Internal (new units)
Ministry of Energy	3–5 legal, policy, and reform coordination staff	Support regulatory approvals, progress reporting, stakeholder forums	Internal + TA
PPP Unit	4–6 contract drafting and risk allocation experts	Design franchise models (input/output/integrated), prepare bid documents	Consultants + donor-funded TA
EWURA	4–6 tariff analysts, franchise oversight officers	Develop franchise regulation manual, monitor pilot frameworks	Internal + training support
Medium-Term Phase (2027–2032)			
Institution	**HR Needs**	**Roles and Responsibilities**	**Type**
TANESCO (Corporate + Zones)	20–30 regional technical coordinators, finance officers	Coordinate interface with franchisees, monitor KPIs, handle supply issues	Internal + redeployed staff
PPP Unit	6–8 transaction advisors and procurement staff	Manage tendering, contracting, onboarding of franchisees	Project-financed TA
EWURA	8–10 consumer protection, franchise compliance and dispute officers	Handle franchise supervision, complaints, service quality, contract compliance	Internal + external experts
Franchise Operators	200–400 operational staff per franchise (across regions)	Distribution operations, metering, billing, customer service, network maintenance	Private sector hires

Long-Term Phase (2032–2035)			
Institution	**HR Needs**	**Roles and Responsibilities**	**Type**
MoE / TANESCO	3–5 policy advisors, evaluation specialists	Conduct final evaluation, consider Option F (IPO/ unbundling readiness)	Contracted
EWURA	4–6 regulatory economists and planning officers	Advise on further market evolution (multi-buyer readiness, tariff reforms)	Internal

Specialized Technical Assistance-TA (Cross-Cutting)			
Function	**Required Expertise**	**Deployment Period**	**Source**
Legal Advisory	PPP law, electricity law, contract enforcement	2025–2029	Donor-financed legal advisors
Financial Modeling	Tariff design, franchisee viability models, revenue forecasting	2025–2032	TA consultants / PPP unit
MIS/ICT Support	Franchise data integration, billing systems, dashboards	2026–2030	TANESCO ICT + Private contractors
Change Management	Organizational behavior, labor relations, communication	2025–2027	Consultants
M&E & Impact Evaluation	Logframe design, surveys, KPIs, performance audits	2026–2035	MoE Reform Unit + External evaluators

7.2. Institutional Capacity-Building

A coordinated, multi-institutional capacity building effort informed by the comprehensive Capacity Needs Assessment (CNA) will be required to ensure that all key agencies can plan, implement, regulate, and sustain the reforms under Option E. This lays the groundwork for effective public-private collaboration, service improvement, and long-term sector sustainability. Table 11 and 12 outline high level capacity building activities for consideration.

Table 11: Institutional Capacity Building Summary

Institution	Capacity Building Focus	Purpose / Expected Outcome
1. TANESCO	-Establish and operationalize Strategic Business Units (SBUs) for Generation, Transmission, Distribution- Introduce internal KPI performance systems- Train staff on loss reduction, billing, and customer service- Strengthen internal audit and financial control systems	Improve operational efficiency, accountability, and readiness to coordinate with private franchisees
2. Ministry of Energy (MoE)	- Strengthen Reform Coordination Unit- Build capacity in policy, stakeholder engagement, and reform oversight- Enhance capacity to develop energy PPP frameworks	Enable effective leadership of reform, inter-ministerial coordination, and oversight of Phase 1 & 2
3. PPP Centre (Ministry of Finance / MoE)	- Train staff in energy-specific PPP structuring- Develop franchise model contracts, risk matrices, and procurement guides- Improve capacity for tender evaluation, contract negotiation, and monitoring	Ensure professionally managed franchise bidding, legal compliance, and fiscal accountability
4. EWURA (Energy and Water Utilities Regulatory Authority)	- Set up a Franchise Oversight Unit- Build capacity for tariff review, service standard enforcement, and contract monitoring- Strengthen consumer protection and complaints redressal mechanisms	Effectively regulate both public and private distribution operators, ensuring service quality and affordability
5. Treasury Registrar (TR)	- Enhance capacity for public asset valuation and reporting- Train staff in oversight of corporatized utilities and PPP contracts- Strengthen public investment performance tracking systems	Safeguard public ownership, monitor financial performance of TANESCO and its subsidiaries, and review franchise agreements
6. Rural Energy Agency (REA)	- Align rural electrification programs with franchise areas- Develop capacity to design and manage output-based subsidies- Train staff in mini-grid integration and public-private rural electrification models	Enable targeted rural access expansion in coordination with franchisees, especially in underserved areas
7. Local Governments (in franchise areas)	- Sensitize on reform roles- Build capacity to support outreach, consumer engagement, and franchise performance reporting	Foster local-level support and feedback loops to improve franchise implementation and accountability
8. Judiciary / Legal Sector	- Train select judicial officers in energy PPPs and dispute resolution- Strengthen capacity for handling contract enforcement and regulatory appeals	Ensure timely, competent adjudication of franchise disputes and regulatory compliance cases

Table 12: Summary of Capacity Building Themes

Summary Capacity Building Themes		
Theme	Target Institutions	Support Tools
Corporate Governance & KPIs	TANESCO, TR	Training, reform manuals, SBU restructuring TA
Franchise Contracting & PPPs	PPP Unit, MoE, REA	PPP toolkits, legal advisory, transaction coaching
Regulation & Oversight	EWURA	Franchise manuals, tariff models, regulatory tools
Performance Monitoring	TANESCO, MoE	M&E frameworks, MIS platforms, audit protocols
Stakeholder Management	MoE, Local Govts	Communications toolkits, community engagement training

7.3. Financial Resource Requirement

The implementation of the ESI Strategy will be funded by the GoT, TANESCO, Development Partners and private sector. The ESI Strategy Financial Plan is divided into immediate, short, medium and long term

7.3.1. Assumptions for the ESI Strategy Financial Plan

The preparation of the budget has considered the following assumptions

- Budget is aligned with achieving targets in generation (~12,500 MW), 100% connectivity, loss reduction (to 11.5%), and private sector market share growth as presented in the targets outlined under section 5.4
- Based on historical unit costs (e.g., ~USD 1–1.2 million/MW for solar, ~USD 2–2.5 million/MW for hydro), ~USD 600–900 per household connection, and benchmarking from similar African ESI reform programs.
- Private capital target of USD 4.039 billion by 2030 indicated in the National Energy Compact is included as a mobilization goal.
- External financing (e.g., EU, AfDB, WB, MCC, AFD, DFIs, climate funds) is expected to play a major role in leveraging domestic resources.

7.3.2 Summary of the Estimated Budget

Table 13 provides a summary budget to achieve the Electricity Supply Industry (ESI) Reform Targets by 2035, based on the outlined targets presented under section 2.5. It is estimated that the ESI Reform Strategy (2025-2035) will be implemented over a period of 10 years and will require about USD 21.5 Billion (equivalent to TZS 64.2 trillion). This is a high-level, indicative budget categorized by reform pillars and major investment areas, assuming public-private partnerships and donor financing mechanisms are leveraged

Table 13: Summary Budget ESI Reform Strategy (2025-2035)

Category	Estimated Cost (USD Billion)	Key Activities
1. Generation Expansion (incl. RE)	6.5 – 7.0	Adding ~8,300 MW (majority from solar, wind, gas, hydro); grid-connected IPPs, SPPs, storage
2. Transmission Infrastructure	2.0 – 2.5	Backbone transmission lines, interconnections, substation upgrades, loss reduction
3. Distribution Network Expansion & Densification	3.5 – 4.0	Rural/urban last-mile connections, substation expansion, metering, smart grids
4. Off-grid and Mini-grid RE Solutions	0.8 – 1.2	Solar mini-grids, standalone systems, battery storage, remote village electrification
5. Energy Loss Reduction (T&D Efficiency)	0.5 – 0.7	Grid modernization, advanced metering infrastructure (AMI), energy audit & technical upgrades
6. Private Capital Mobilization (Leverage Goal)	4.0 – 5.0	Incentives, PPP structuring, credit enhancement tools
7. Institutional & Regulatory Strengthening	0.2 – 0.3	Capacity building (EWURA, TANESCO, MoE), tariff reviews, policy tools, ICT investments.
8. TANESCO Financial Recovery Plan	0.3 – 0.5	Tariff cost-reflectivity support, legacy debt management, performance-based management reform
9. Customer Satisfaction & Digital Services	0.1 – 0.2	CSAT tools, digital customer engagement, CRM, complaint handling modernization
10. M&E, Knowledge & Program Management	0.05 – 0.1	Monitoring & evaluation, annual scorecards, program management unit
TOTAL AMOUNT	**18.0 – 21.5**	

08 ESI REFORMS IMPLEMENTATION ROADMAP

This section outlines the implementation roadmap of the ESI-SR 2025-2035. It outlines the specific tasks, timelines for implementing the major reform activities, ensuring that everyone is on the same page and working towards the same goals. This clarity minimizes confusion, enhances collaboration, and ultimately increases the likelihood of achieving desired outcomes.

8.1. The ESI Reform Roadmap

The ESI reform roadmap spans 10 years and requires disciplined phasing, continuous capacity strengthening, and transparent stakeholder engagement. Its success will depend on early internal improvements, carefully piloted PPPs, and adaptive scaling based on performance results. Table 14 outlines cross-cutting enablers that support and sustain the Tanzania ESI Reform Roadmap 2025–2035 across all phases (short-, medium-, and long-term). These are foundational elements that underpin successful reform delivery. A high-level implementation roadmap is provided in Figure 9.

Table 14: Cross-Cutting Enablers Throughout All Phases

Enabler	Description	Responsible Institutions	Role
Capacity Building & Institutional Strengthening	Continuous skills enhancement and systems development across MoE, TANESCO, EWURA, REA, and PPP units.	MoE, EWURA, TANESCO, REA, Development Partners	Supports effective implementation, monitoring, and private sector engagement.
Robust Monitoring, Evaluation & Reporting Framework	Real-time performance tracking, transparency, and reform progress assessments using KPIs and annual ESI reports.	EWURA, MoE, TANESCO	Enables accountability and adaptive management.
Stakeholder Engagement & Communication	Inclusive dialogue with government, private sector, communities, and donors to build trust and support.	MoE, PPP Center, EWURA, REA	Ensures buy-in, manages reform risks, and builds investor confidence.
ICT & Digitalization	Deployment of modern IT systems (billing, metering, GIS, SCADA, ADMS, dashboards) for data-driven operations.	TANESCO, EWURA, MoE	Enhances service quality, grid visibility, and loss reduction.

Gender Equality & Social Inclusion (GESI)	Mainstreaming GESI across electrification programs, clean cooking access, and employment in the sector.	MoE, REA, EWURA	Promotes equitable access and inclusive economic participation.
Policy Coherence & Legal Reform	Harmonization of ESI laws, regulations, climate goals, and national development plans (e.g., Vision 2050).	MoE, Attorney General, EWURA	Ensures long-term legal certainty for investors and system stability.
Climate Finance Mobilization	Leveraging GCF, CIFs, and private green capital to co-finance clean energy and climate-resilient infrastructure.	MoE (NDA), MoF, EWURA	Bridges funding gaps and de-risks low-carbon investments.
Donor Coordination & Development Partner Alignment	Strategic alignment of donor-supported programs with national reform priorities.	MoE, DPs	Avoids duplication and increases development impact.
Regional Collaboration & Harmonization	Active engagement with EAPP/SAPP for power trade, interconnection, and regulatory convergence.	MoE, TANESCO, EWURA	Positions Tanzania as a regional electricity hub.

Figure 9 High-level implementation plan roadmap (2025-2035)

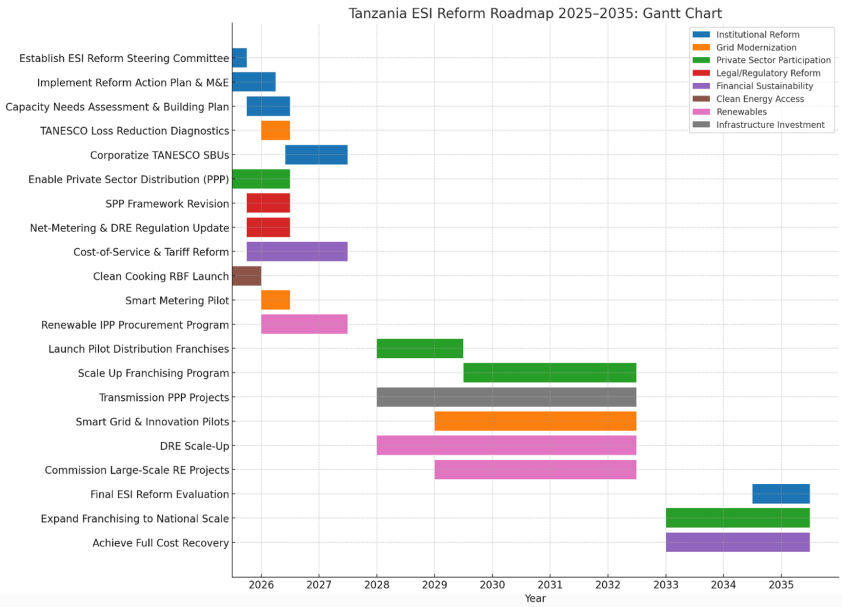


Table 15 provides detailed implementation roadmap divided into Short-term (2025-2027), Medium-term (2028-2032), and Long-term (2033-2035) activities.

Table 15: Implementation Roadmap for the ESI Reforms

Short-Term (2025-2027)					
Institutional and Governance Reform					
Reform Activity	**Rationale**	**Lead Institution(s)**	**Collaborators**	**Milestone/ Indicator**	**Timeframe**
Establish an ESI Reform Steering Committee	Create a high-level body to coordinate and oversee ESI reforms, ensuring accountability and alignment with Tanzania's Vision 2050 development agenda	MoE	TANESCO, EWURA, development partners (DPs), private sector (PS).	Steering Committee operational	March 2026
Approve and Implement a Reform Action Plan & M&E Framework	Define a clear reform implementation roadmap with measurable indicators, enabling structured monitoring and transparency in progress reporting. This ensures reforms support national goals (e.g. rural electrification, clean energy) and allows government and donors to track KPIs regularly.	MoE	TANESCO, EWURA (regulator), DPs, PS	Comprehensive Reform Plan published and monitoring tools	March 2026
Conduct Capacity Needs Assessment & Launch Capacity Building Plan	Identify human and institutional capacity gaps and strengthen capabilities for reform implementation and sustainable sector management (project planning, regulatory oversight, utility management). This supports long-term institutional resilience and aligns with donors' focus on capacity building	MoE	TANESCO, EWURA, DPs	Needs assessment completed	March 2026
				a targeted Capacity Building Program (training, technical assistance) rolled out	June 2026

Begin loss reduction diagnostics	Reduces technical and commercial loss	TANESCO	EWURA	Loss Diagnostic plan	June 2026
Corporatize and ring-fence TANESCO SBUs	Improves accountability and cost transparency	TANESCO Board	MoE, TR	≥3 SBUs operational	June 2027
Finalize and implement KPI-based management for TANESCO	Drives performance improvements	TANESCO Board	MoE, EWURA	90% of TANESCO staff under KPIs	June 2027
Legal and Regulatory Frameworks					
Enable Private-Sector Participation in Distribution (Franchising Framework)	Opening distribution to vetted private operators (through PPP model contracts and guidelines) will improve efficiency, reduce losses, and expand connections, especially in underserved areas.	MoE	Ministry of Finance PPP Center, TANESCO, EWURA	Distribution Franchise legal framework (policy, model contracts, and regulatory guidelines) approved enabling pilot franchise tenders in the medium term	June 2026
Revise Small Power Producer Framework	Update the 2020 Small Power Producer framework to encourage more renewable energy IPPs (solar, wind, mini-hydro, etc.) by simplifying licensing and ensuring cost-reflective tariffs for small projects. This will attract private developers to invest in distributed renewable generation and mini grids, supporting rural electrification and reducing reliance on diesel	EWURA	REA & TANESCO	New SPP framework published including the new cost-reflective tariffs	June 2026

Update Net-Metering and Distributed Energy Regulations	Promote prosumer generation and grid-tied solar by updating net metering rules, interconnection standards, and feed-in tariffs for rooftop solar and other distributed renewable energy (DRE). This encourages households, businesses, and communities to invest in renewables, contributing to national clean energy goals	EWURA	TANESCO & MoE	Revised Net-Metering/DER regulations in force	June 2026
Financial Sustainability & Access to Finance					
Conduct a Cost-of-Service Study & Tariff Reform	Establish the true cost of electricity supply and set a path toward cost-reflective tariffs.	EWURA	TANESCO, MoE & MoF	Cost of Service Study completed and published	June 2026
				New tariff adjustment mechanism (e.g. annual minor reviews and lifeline rates for the poor) adopted	June 2027
Launch Results-Based Financing (RBF) for Clean Cooking	Kick-start private investment in clean cooking solutions (improved biomass stoves, LPG, biogas) via incentives	REA	MoE & DPs	lean Cooking RBF facility launched	December 2025
Reduce Taxes/ Duties on Clean Energy Equipment	Improve affordability of clean cooking technologies and solar home systems	MoF (TRA – Tanzania Revenue Authority)	MoE &REA	Tax incentives for clean cooking and off-grid solar in effect, with price reductions passed on to consumers (tracked via market surveys)	June 2026
Stakeholder Consultations on Distribution Franchising	Build consensus and awareness for private participation in distribution	MoE	TANESCO	Consultation forums held in major regions	June 2026
				Publication of a consultation report	June 2026

Identify and map franchise-ready zones ((urban and rural)	Select pilot areas (urban clusters or rural districts) where private operators can manage distribution under TANESCO oversight. Criteria include high losses or low access areas where investment is needed, and sufficient demand to attract investors. Mapping franchise-ready zones will clarify opportunities for the private sector and donors (who can support viability gap funding)	TANESCO (Distribution Unit)	MoE, REA	At least 3 pilot franchise areas (e.g. a secondary city or peri-urban clusters and one rural region) identified and approved for tender	December 2026
Recruit Transaction Advisors for PPP	Engage experienced advisors to structure and transact complex PPP deals (distribution franchises, IPP projects, transmission PPPs). This reduces risk and speeds up financial closure by ensuring bankable contracts	MoE PPP Unit	MoF PPP Center, EWURA.	Transaction advisors on-board	June 2026
Output-Based Aid (OBA) for Rural Connections	To ensure rural franchise areas and off-grid solutions are financially viable while expanding access, the government will introduce output-based subsidies. For example, a payment per new rural household connected (on-grid or off-grid) can be given to service providers to bridge affordability gaps. This incentivizes private and community-based providers to extend service to poorer, remote customers	REA	TANESCO, MoE	OBA program for rural electrification launched	June 2027

Grid Modernization & Integration					
Launch TANESCO Loss Reduction Program	Reduce technical and commercial losses in the grid to improve reliability and financial performance	TANESCO	EWURA, MoE	Loss Reduction Program operational	June 2026
Launch Smart Metering & Revenue Protection Pilot	Pilot advanced metering infrastructure in high-loss areas to curb power theft and improve billing accuracy. Smart meters and feeder metering allow TANESCO and any franchise operators to pinpoint losses and improve collections	TANESCO	EWURA, TBS, MoE	Smart meter pilot covering at least 50,000 customers	June 2026
				Smart Metering rollout plan for wider deployment	June 2026
Grid Expansion and Quality Improvement	Invest in strengthening the distribution grid to support new connections and reliability	TANESCO (with REA for rural)	DPs (financing), Contractors	Grid reinforcement projects completed in at least 10 regions	June 2027
Renewable Energy & Access					
Launch Renewable Energy IPP Procurement Program	Attract private investment into large-scale renewable generation (solar, wind, geothermal) to diversify the mix and meet clean energy targets. Tanzania aims to increase renewables from ~62% to 75% of generation by 2030, adding ~1,800 MW of non-hydro renewables	MoE	TANESCO	Renewable Energy IPP Procurement Program	June 2026
				First auction (e.g. 100 MW solar) completed	June 2026
				At least 300 MW of new renewable IPP projects reaching financial close	June 2027

Mobilize Investment for Distributed Renewables (DRE)	Expand off-grid electrification through private companies and community schemes. Given the ambitious access goal (75% by 2030), off-grid solutions like solar home systems and mini-grids are critical for remote areas	REA	MoE, DPs, private solar companies.	Tax incentives for off-grid products in place	June 2026
				Dedicated DRE investment facility (blending donor grants and private finance) established	June 2026
Streamline licensing and provide technical assistance for private mini-grid developers	The aim is to reduce procedural delays and transaction costs, enabling quicker rollout of mini grids in unelectrified villages	EWURA	REA	Standardized templates for mini-grid concessions and interconnection (for eventual grid integration) published	June 2026
				One-Stop Shop for mini-grid investors established	June 2026
				20+ private mini-grids operational (or under construction)	June 2026
Facilitate private investment in DRE (standards, quality assurance)	To facilitate the integration of renewable energy sources while minimizing disruptions to the existing grid infrastructure and ensuring a secure and reliable power supply for all consumers	TBS	EWURA, TANESCO, MoE, DPs and Private Sector	Technical Standards and Non-technical Standards Published	June 2026

Rollout Clean Cooking Initiatives	In addition to RBF, the government will implement a broad clean cooking program (public awareness campaigns, support for LPG distribution infrastructure, biogas systems, and efficient charcoal alternatives). This is tied to both health and environmental objectives, and contributes to Tanzania's climate change mitigation	REA	MoE (Renewable Energy Department)	National Clean Cooking Campaign launched	December 2025
Regional Power Trade					
Establish TANESCO power trading unit	The unit will manage imports and exports of power, capitalize on Tanzania's position between the Eastern Africa Power Pool (EAPP) and Southern African Power Pool (SAPP), and optimize supply costs by buying cheaper surplus power or selling Tanzania's excess (e.g. from the new 2,115 MW Julius Nyerere hydropower)	TANESCO	MoE, EWURA	Trading unit staffed and operational	December 2025
				At least 2 cross-border power purchase agreements or trade deals signed allowing importing lower-cost power during peak demand, exporting surplus hydro in rainy season	June 2027
Harmonize cross-border transmission tariffs (SAPP, EAPP)	Align Tanzania's grid codes and tariff structures with regional standards to enable smooth power trade. This will reduce transaction costs for cross-border projects and give private investors confidence in consistent rules	EWURA	TANESCO, MoE	Harmonization agreements or regulatory changes in place (e.g. adoption of SAPP pricing principles for transit tariffs).	June 2026
Identify & Initiate Key Interconnection Projects	Strengthen physical links with neighbouring countries to increase import/export capacity	TANESCO	MoE, Regional EAPP, SAPP, DPs	Tanzania – Zambia 400 kV interconnection project comssioned	June 2026

Medium Term (2028-2032)					
Institutional and Governance Reform					
Reform Activity	**Rationale**	**Institution Responsible**	**Collaborating Institutions**	**Milestone/Indicator**	**Timeframe**
Implement Capacity Building Plan	Continue strengthening sector institutions by executing the training and capacity development programs formulated in the short term. This ensures Tanzanian agencies can effectively manage a more complex, private-sector-inclusive power sector	MoE	TANESCO, EWURA, REA, DPs & PS	Annual capacity-building targets achieved (e.g. number of staff trained, new skills acquired) reported in Capacity Strengthening Reports	Annually
Annual Performance Reporting and Transparency	Institutionalize transparency by publishing yearly ESI Performance Reports (covering financials, operational KPIs, reform milestones). Open data builds trust with investors and citizens and allows donors to monitor progress against KPIs.	EWURA	TANESCO & MoE	Reports publicly available each year detailing metrics like electrification rate, losses, collection efficiency, generation mix, etc., in line with SDG7 tracking	Annually
Monitor and Refine Franchise Model	As pilot distribution franchises become operational (late 2020s), closely monitor their performance (loss reduction, collections, customer service, connection growth) vs. TANESCO benchmarks. Use this to refine regulations or support mechanisms.	EWURA	TANESCO & MoE	Franchise performance reviews completed, informing scaling decisions (e.g. adjustments to contracts or additional incentives for rural franchises).	June 2030
Mid-Term Review of ESI Reform	The evaluation will guide any policy shifts needed for 2032–2035	MoE (independent experts)	TANESCO, EWURA, DPs, PS	Mid-Term Review Report Published	June 2029

Private Sector Participation & Market Development					
Launch Pilot Distribution Franchises	Based on preparatory work, initiate private sector operation of distribution in selected zones. This will test the franchise model's impact on loss reduction, service quality, and new connections	TANESCO (as asset owner) & MoF PPP Center	MoF, EWURA, MoE	2–3 franchise contracts awarded (covering at least one urban and one rural area). Each franchisee is responsible for operations and maintenance in their area under a performance-based contract	June 2029
Scale Up Franchising Program	If pilots are successful, extend franchising to more regions to increase efficiency and investment in distribution. Franchising can bring in private capital for network upgrades and improve customer service through accountable management	TANESCO (as asset owner) & MoF PPP Center	MoF, EWURA, MoE	An additional 5–7 distribution zones franchised, bringing roughly 60% of national customers under privately-managed distribution. The government will provide output-based subsidies or viability gap funding especially for rural franchisees to ensure affordability	June 2032
Facilitate Independent Power Transmission (IPT) Projects	Reduces the fiscal burden on government and taps private efficiency	TANESCO	MoE	IPT pilot completed	June 2028
				Framework for private investment in transmission adopted (per pilot results)	June 2028
				at least one major transmission PPP (e.g. a new high-voltage line) reaches financial close	June 2032
Competitive Wholesale Market Preparation	Lay groundwork for a gradual transition to a more competitive electricity market post-2030 (if deemed viable). This may include developing a day-ahead trading platform or allowing large consumers to choose suppliers	EWURA	MoE	Market options study conducted, and necessary legal amendments identified for post-2035 market structure decisions.	June 2032

Financial Sustainability & Access to Finance					
Phased Tariff Adjustments & Subsidy Targeting	Implement the tariff adjustment mechanism established in 2027 on an annual basis. By medium term, TANESCO (and ZECO in Zanzibar) should be moving toward full cost recovery, with any government subsidies directed only to lifeline tariffs for the poorest. EWURA will ensure tariffs remain affordable through cross-subsidies and possibly a national electricity subsidy fund for low-income households	EWURA	TANESCO & MoE	Annual tariff reviews conducted 2027 onward (with publication of new tariffs and their justification)	Annually
Utility Performance and Financial Restructuring	Continue improving TANESCO's financial health through efficiency gains and possible capital restructuring	MoE	MoE	TANESCO meets key financial ratios (e.g. debt service coverage, operating margin positive), indicating progress toward creditworthiness.	June 2030
Introduce output-based subsidy mechanism for rural franchisees	Targets low-income rural	REA	MoE	Program launched by	June 2027
Grid Modernization & Integration					
Align Network Infrastructure with Franchises	As private distributors come on board, TANESCO must ensure its IT systems (billing, metering, outage management) interface smoothly with franchisees. Investments in modern billing systems and data management will enable real-time performance tracking	TANESCO	Franchise operators, EWURA	Integrated IT and billing systems operational, allowing franchisees to use TANESCO's platforms or exchange data seamlessly. For example, a central data platform will publish performance dashboards (losses, collections) for each franchise zone	June 2028

Expand Transmission & Regional Links	Reinforce the transmission network to handle new generation and cross-border power flows.	TANESCO	MoE, Regional EAPP, SAPP, DPs	Tanzania – Malawi 400 kV interconnection project commsioned	June 2030
				Tanzania (Ibadakuli - Nyakanazi – Kyaka) – Uganda (Masaka) 400 kV interconnection project commissioned	June 2030
				Tanzania (Shinyanga – Bunda) – Kenya (Kilgoris) 400 kV interconnection project commissioned	June 2030
				Tanzania – Mozambique 400 kV interconnection project commissioned	June 2032
Smart Grid and Innovation Pilots	Pilot emerging technologies to enhance grid efficiency and integration of renewables. This includes battery energy storage systems (for grid stabilization and peak shaving), grid automation (SCADA/DMS upgrades), and possibly digital solutions like pay-as-you-go smart meters for rural mini-grids. Such pilots, supported by climate finance or innovation grants, prepare Tanzania's grid for the future	TANESCO	MoE, EWURA	Battery storage pilot project (e.g. 20 MWh system) commissioned	June 2030
				Advanced distribution management system (ADMS) operational	June 2032

Renewable Energy & Access					
Distributed Renewable Energy Scale-Up	Building on the foundations of the short term, massively scale distributed solutions to reach remote populations. Private solar companies, often supported by results-based grants, will extend solar home system coverage. Mini-grid developers (some in partnership with franchises or communities) will electrify villages far from the main grid	REA	DPs, PS	≥500,000 new DRE connections	June 2032
Large-Scale Renewable Projects Commissioned	Bring online the renewable energy projects initiated in the short term. Several large IPP projects (solar parks, wind farms, possibly geothermal) should reach commercial operation, adding hundreds of MW of clean generation. These will reduce dependence on costly diesel and cut GHG emissions in line with Tanzania's NDC commitments	TANESCO	IPPs	At least 1,000 MW of new renewables commissioned (e.g. multiple 50–200 MW projects nationwide)	June 2032
Clean Cooking Access Expansion	Intensify efforts to shift households to clean cooking as 2034 target approaches. In the medium term, this involves scaling up successful business models (Clean Cookingdistribution networks, ethanol/methanol fuels, biogas in rural institutions) with continued support from development partners	REA	MoE	Clean cooking access reaches ~50% of households (from <20% in 2025),	June 2030

Regional Integration & Trade (2027–2032)					
Active Participation in Regional Power Markets	By the late 2020s, Tanzania will be trading power in the EAPP/SAPP competitive markets (where surplus and deficit can be balanced daily). The TANESCO trading unit will by now have gained experience through bilateral trades and will start participating in any regional power exchanges or auctions	TANESCO Trading Unit	MoE, MoF, EAPP, SAPP, DPs	Tanzania regularly imports/exports power (hundreds of GWh annually depending on seasonal needs and prices.	June 2030
Regional Projects and Harmonization	Complete and operationalize the major interconnectors begun in the short term	TANESCO Trading Unit	MoE, MoF, EAPP, SAPP, DPs	All key cross-border lines operational, enabling >500 MW of trade capacity in each direction. Tanzania to possibly become a net exporter of renewable power during wet seasons if generation exceeds domestic demand, earning foreign exchange.	June 2030

Long-Term (2033-2035)					
Institutional and Governance Reform					
Reform Activity	**Rationale**	**Institution Responsible**	**Collab-orating Institutions**	**Milestone/ Indicator**	**Timeframe**
Final Evaluation of the ESI reforms	In 2035, conduct a thorough Final Evaluation of the 10-year reform program (2025–2035). This will measure outcomes against initial goals: e.g. increased electrification, financial stability, private sector investment volume, and service quality improvements. The evaluation will inform decisions on the post-2035 market structure (whether to introduce further competition, unbundle TANESCO, etc.)	MoE (independent consultant)	TANESCO, EWURA, DPs, PS	Final ESI Reform Report published, with recommendations for the next decade (2035–2045) and lessons learned for other countries	June 2035

Institutionalize Strong Governance	The reforms should result in strengthened sector governance – e.g. TANESCO operating as a more autonomous, commercially-run utility (or group of utilities), and regulators and policymakers having enhanced capacity. This stage focuses on cementing these gains through possibly new legislation (e.g. an updated Electricity Act) that codifies private sector roles, competitive procurement, and transparent regulation	MoE	TANESCO, EWURA, DPs, PS	Electricity Law updated by 2035 to lock-in reforms (if needed)	June 2035
				Ongoing capacity building transitions to local institutions (centers of excellence for power sector skills within Tanzania's universities and training institutes).	June 2035
Private Sector Participation & Market Development					
Expand Franchising to National Scale	If the franchise model proves successful, by the early 2030s most distribution service areas will be privately managed. The goal for 2032–2035 is to cover all viable areas with franchising or other PPP arrangements, leaving TANESCO to potentially focus on transmission and backbone infrastructure. This represents a major shift in the utility model, improving efficiency and service delivery across the country	TANESCO (as asset owner)	MoE, EWURA, MoF PPP Centre	60–80% of distribution customers served by private franchises or concessions (Remote areas that remain directly under TANESCO will continue to be subsidized or prepared for future private service as the market evolves.)	June 2035
Consider Consolidation of Utilities	The government may explore merging franchise areas into larger regional utilities or even privatizing TANESCO's generation or retail segments if it improves performance (this would be optional and based on outcomes). For example, several successful rural franchises could be bundled into a single larger utility company to achieve economies of scale	TANESCO (as asset owner)	MoE, EWURA, MoF PPP Centre	Policy decision by on whether to pursue further unbundling or consolidation for the next phase. This will depend on the final evaluation's findings on efficiency gains vs. regulatory complexity.	June 2035

Enhanced Private Investment Framework	By 2035, Tanzania aims to have a proven track record that significantly de-risks investment. This includes a robust legal framework (with enforcement of contracts via international arbitration as needed), a financially solvent off-taker (TANESCO or successors), and a transparent regulatory regime. These conditions should reduce the risk premium and attract long-term infrastructure funds and climate finance	MoF	TIC, MoF, EWURA	Tanzania achieves an improved credit rating for the energy sector or secures large-scale climate finance (e.g. Green Climate Fund program), reflecting global confidence in its framework	June 2035
Financial Sustainability & Access to Finance					
Achieve Full Cost Recovery & Utility Viability	The culmination of tariff reforms and loss reduction should be a power sector that is financially self-sustaining by the 2030s. By 2035, tariffs should fully cover costs (generation, transmission, distribution, plus reasonable return on investment) without unsustainable subsidies. TANESCO (or restructured successor companies) should by then be able to borrow on domestic and international markets based on their balance sheets	MoF	MoE, EWURA	No recurrent fiscal transfers to TANESCO (except targeted subsidies)	June 2035
				TANESCO's creditworthiness improved (e.g. able to raise bond financing for projects).	June 2035
Leverage Climate Finance and Green Investments	With strong frameworks in place, Tanzania will increasingly access climate finance for its clean energy projects. By the 2030s, the country should demonstrate climate finance readiness – e.g. accredited national entities to the Green Climate Fund, and a pipeline of bankable green projects (renewables, energy efficiency, climate-resilient grid upgrades). This aligns with global efforts to fight climate change and can provide concessional funding to further lower energy costs. Lead: MoE/ DoE (Dept. of Energy) & NDA (National Designated Authority for climate funds).	MoE	EWURA, MoF	At least $200–300 million in climate finance mobilized for the energy sector (through GCF, Climate Investment Funds, etc.), supplementing private and public investment	June 2035

09 MONITORING, EVALUATION AND PERFORMANCE ACCOUNTABILITY FRAMEWORK

This section provides an overview of the Monitoring, Evaluation and Performance Accountability Framework (MEPAF) for the ESI-SR 2025-2035. The MEPAF aims to guide the MoE and its stakeholders to track progress, assess effectiveness of implementation of the ESI reforms and to ensure accountability, and promote learning throughout implementation period.

9.1. Overview of MEPAF

Monitoring, Evaluation and Performance Accountability Framework (MEPAF) will be tailored to monitor and report progress on the implementation of the Electricity Supply Industry (ESI) Reform (2025–2035). Key features of the M&E framework include

- Digital Dashboard (proposed): For real-time tracking of KPIs across institutions.
- Annual Scorecards: To be published by MoE in annual performance reports showing performance per target.
- Third-Party Evaluation: Every 5 years (2030, 2035) for independent impact assessment.
- Gender & Inclusion Monitoring: Integration of gender-disaggregated connectivity and employment data.
- Cross-Cutting Themes: Climate resilience, decentralization, and regional power trade.

The Government will allocate adequate technical and financial resources to the midterm assessment/ reviews and final evaluation, which will be a participatory process and shall include implementing agencies and other relevant stakeholders from the public, private and civil society sectors.

9.2. MEPAF Objectives

The overarching goal of the MEPAF is to provide a systematic structure for assessing the effectiveness, efficiency, and impact of electricity sector reforms. The MEPAF activities for ESI reforms will be carried out to achieve the following specific objectives

- Tracking progress on the implementation of planned activities, outputs, outcomes, and impacts.
- Measuring performance against defined targets and indicators
- Enhancing accountability across all levels of implementation through clear roles and responsibilities.
- Facilitating adaptive management by identifying challenges early and enabling timely interventions.
- Supporting policy learning and future strategic planning by documenting lessons and best practices

9.3. Results Framework Matrix

Table 16 outline the Results Framework Matrix for the Electricity Supply Industry (ESI) Reform Strategy (2025–2035)

Table 16: ESI Reform Result Framework

Strategic Objective	Expected Results	Indicator	Baseline	Target 2030	Target 2035	Means of Verification	Fre-quency	Responsi-bility
Expand generation capacity and diversify energy mix	Increased installed capacity and share of renewable energy	Installed Generation Capacity (MW)	4,182	11,822	12,500	EWURA/ TANESCO Reports	Annual	Ministry of Energy, TANESCO, EWURA
Enhance renewable energy integration	Increased share of RE and non-hydro RE in generation mix	Share of RE (Total/Non-Hydro)	61.8% / 2%	75% / 45%	75% / 45%	Annual Energy Balance Reports	Annual	Ministry of Energy, REA, EWURA
Achieve universal access to electricity	Increased electricity connectivity rate	Electricity Connectivity Rate (National/ Urban/Rural)	50% / - / -	87% / 100% / 74%	100% / 100% / 100%	NBS Household Surveys, REA reports	Biennial	Ministry of Energy, REA, NBS
Improve operational efficiency	Reduced system, transmission, and distribution losses	System / Transmission / Distribution Losses	14.61% / 5.86% / 8.75%	12.49% / 5.0% / 7.49%	11.5% / 4.5% / 6%	TANESCO Technical Reports	Annual	TANESCO, EWURA
Ensure financial sustainability of the utility	Improved cost recovery and customer satisfaction	Cost Recovery Ratio / Customer Satisfaction Index	Eighty percent / No data	90% / 75%	100% / 80%	Annual Financial Reports, CSAT Surveys	Annual	TANESCO, Ministry of Energy, EWURA
Increase private sector participation and investment	Increased private capital mobilized and market share	Private Capital (USD) / Market Share in Gen-Trans-Dist	$0.5B / 9%-0%-<1%	$4.039B / 15%-2%-5%	- / 20%-5%-10%	Investment Reports, PPP Registry	Annual	MoE, PPP Centre, EWURA
Increase share of generation exported	Increased hare of generation exported	Share of Generation Exported	<0.1%	12%	15%	EWURA/TANESCO Reports	Annual	Ministry of Energy, TANESCO, EWURA

9.4. Institutional Arrangements MEPAF

Various institutions will play a role in monitoring and evaluation of ESI reforms. The roles and responsibilities of key parties are outlined under Table 17 for reference. Table 18 proposed the key MEPAF events for reference.

Table 17: Roles of key institutions in M&E of ESI reforms

Entity	Role
Ministry of Energy Reform Unit	Lead unit led by MoE DPP with the representation of all MoE departments, TANESCO and REA is responsible for MEPAF coordination; maintain results dashboard.
TANESCO Reform Monitoring Unit	Track internal KPI progress and losses, report quarterly.
REA	Monitor rural electrification programs and their socio-economic impact. REA will also lead monitoring the implementation of SPPs
EWURA	Monitor franchise service standards, tariff impacts, and customer protection. EWURA also monitor implementation of tariff order.
NBS	Conduct national surveys-collecting, analysing, and disseminating data related to energy access, consumption, and production
PPP Centre	Evaluate private partner performance, contract compliance.
Independent Evaluators / Consultants	Conduct mid-term (2028) and final (2035) evaluations. The evaluations will also assess the implementation of performance agreements between EWURA and regulated entities under the franchisee or distribution concession.
Development Partners	Validate M&E processes and co-finance independent evaluations.
Civil Society and Academia	Contribute to mid-term review and final evaluation, generate evidence to drive learnings and accountability

Table 18: M&E Calendar Highlights

Year	Milestone
2025	Baseline assessment, MEPAF framework finalization
2026	First TANESCO KPI performance audit
2028	Mid-term review of Phase 1 (modernization)
2029	Launch of first 3 franchise pilots (urban + rural)
2032	Mid-term review of franchising performance
2035	Final evaluation and policy decision on next phase

9.5. Reports & Planned Reviews

- Performance reports: Consolidated reports covering progress on the implementation of activities outlined in the ESI 2025-2035 strategy. These includes Quarterly semi-annual and annual reports

as well as EWURA's ESI quarterly and annual performance reports

- Various reviews, studies, and survey reports: As per the needs, MoE and stakeholders may commission specific studies/review on specific issues of interests.
- Mid-Term Review of the ESI 2025-2035 strategy to assess progress, address challenges, and make necessary adjustments to ensure performance stay on track.
- Final Evaluation: As shown in Table 18 a final evaluation of the implementation of ESI reform is proposed to generate learnings and inform future reform efforts post 2035. Key evaluation questions are outlined in Table 19 for consideration.

Table 19:Cross-Cutting Evaluation Questions

Theme	Evaluation Questions	Methods
Efficiency	Are corporatization and franchise reforms improving cost recovery and operational efficiency?	Financial ratio trend analysis, benchmarking
Equity	Are rural and low-income consumers benefiting equitably from franchising and grid expansion?	GIS mapping, pro-poor access analysis
Sustainability	Are reforms reducing dependency on government subsidies?	Fiscal impact review
Governance	Is contract management and regulatory oversight functioning effectively?	Institutional performance assessments
Stakeholder Satisfaction	Are stakeholders (public, private, staff) satisfied with the reform progress?	CSAT surveys, key informant interviews

9.6. Performance Accountability Mechanism

M&E activities will involve reviewing progress on implementation of the strategy as outlined below.

- Performance Contracts: Signed between MoE and key institutions like TANESCO and REA, linked to specific M&E targets.
- Quarterly the energy sector reviews meetings. Convened and co-chaired by the Permanent Secretary and the Minister for Energy to review performance against performance contracts with key institutions such as REA and TANESCO
- Joint Energy Sector Review Meetings: Convened annually by MoE to review performance against targets with all key actors.
- Public Scorecards: Published annually by MoE to promote transparency and citizen engagement.
- Corrective Action Plans: Required for institutions falling behind targets for two consecutive reporting periods.
- Grievance Redress Systems: Strengthened to capture citizen complaints and ensure timely resolution

9.7. Learning and Adaptation

The MEPAF emphasizes adaptive learning. Lessons learned from evaluations, stakeholder consultations, and performance reviews will be captured and used to revise implementation plans and inform future reform strategies. Knowledge-sharing platforms and learning exchanges will be organized periodically to support institutional growth.

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