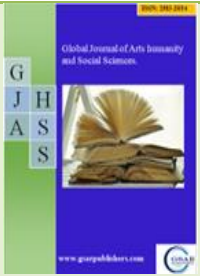


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Regulatory Barriers to Private Sector Direct Electricity Distribution to Customers in Tanzania: An Assessment of the Existing Legal Framework

By

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Abstract

Private-sector participation in electricity distribution is often presented as a means of mobilizing capital, improving service quality, reducing losses, and widening customer access. In Tanzania Mainland, however, electricity distribution remains highly concentrated in a state-owned incumbent despite a legal framework that permits licensed and registered participation by other entities. This article assesses whether the existing legal and regulatory framework creates barriers to private-sector direct distribution to customers. It applies a doctrinal legal-research method supported by documentary analysis of the Electricity Act, 2008, Energy and Water Utilities Regulatory Authority (EWURA) rules, official sector-performance data, and selected policy and scholarly literature. The article finds that private distribution is not expressly prohibited. Nevertheless, practical entry is constrained by licensing and qualification requirements, multiple institutional approvals, tariff and cost-recovery uncertainty, dependence on incumbent-controlled infrastructure, land and way leave requirements, technical and service obligations, and uncertainty affecting decentralized projects when the main grid arrives. EWURA reported that, as of June 2025,

TANESCO owned approximately 99.50 per cent of the reported electricity-distribution line length, while only two entities held distribution licenses above one megawatt and five entities were registered below one megawatt. The article argues that Tanzania should pursue regulated and accountable market opening rather than abrupt full privatization. It recommends competitive-neutrality rules, coordinated approvals, proportionate licensing, transparent tariffs and subsidies, non-discriminatory access, competition for service areas, clearer mini-grid rules, stronger performance regulation, and institutional capacity-building.

Keywords: electricity distribution; private-sector participation; state monopoly; regulation; market competition; TANESCO; EWURA; Tanzania Mainland; regulatory barriers; energy law.

1. Introduction

Electricity distribution is essential to economic development, public welfare, industrial productivity, and household wellbeing. It is also a network activity that requires substantial investment in poles, conductors, transformers, substations, meters, control systems, maintenance, and customer connections. These characteristics make electricity distribution different from ordinary retail markets. It may be inefficient to construct several parallel networks in the same locality, but a single network operator may

possess considerable market power over access, prices, service quality, and investment.¹

The traditional response to this problem has been to establish a regulated monopoly. More recent electricity-sector reforms have attempted to distinguish network functions that retain natural-monopoly characteristics from potentially competitive activities that may be opened to private participants. In such systems,

¹ Energy and Water Utilities Regulatory Authority Act, [Cap 414 of 2006 R. E 2023]

competition may occur through direct supply, competitive procurement, concessions, mini-grids, public-private partnerships, or competition for the right to serve a defined area. Regulation remains necessary, but it should correct market failure rather than protect an incumbent from legitimate competition.

Tanzania Mainland presents an important case for examining this tension. The legal framework permits private participation in electricity activities, including distribution, subject to licensing, registration, technical, financial, tariff, and service obligations.² EWURA's current licensing guidance states that a person intending to undertake distribution or other specified electricity activities must apply for a license unless an exemption applies. It also distinguishes between activities above one megawatt, for which a license is issued, and activities below one megawatt, for which registration applies.³

Formal legal permission has not, however, produced a diversified distribution market. EWURA reported that, as of June 2025, two entities held distribution licenses for activities above one megawatt and five entities were registered for activities below one megawatt. The same report stated that TANESCO owned 213,278.32 kilometres, or approximately 99.50 per cent, of the reported distribution line length.⁴ These figures suggest a market that is legally open but operationally dominated by a state-owned incumbent. The central argument of this article is that the principal barrier is not an express statutory prohibition on private direct distribution. Rather, the barrier arises from the cumulative interaction between the state-owned incumbent, licensing and administrative requirements, tariff regulation, network-access dependence, public-service obligations, and institutional coordination. A private firm may theoretically obtain permission to distribute electricity, but practical participation also requires access to electricity supply, networks, customers, land, finance, tariff recovery, and predictable long-term regulatory treatment.⁵ The article addresses three questions. First, what legal and institutional framework governs private-sector direct distribution to customers in Tanzania Mainland, Second, which provisions and institutional arrangements may operate as barriers to effective private entry and operation, Third, what legal and policy reforms could promote competition and private investment while protecting affordability, reliability, safety, and universal access.

2. Methodology and Scope

This article uses a doctrinal and policy-oriented legal-research methodology. The doctrinal component analyses the Electricity Act, 2008 and subsidiary regulatory instruments administered by EWURA. The policy component evaluates the practical

implications of those rules using official empirical data and selected institutional and academic sources. The principal empirical source is EWURA's Electricity Sub-Sector Regulatory Performance Report for FY2024/25, covering July 2024 to 30 June 2025.⁶ The report provides data on distribution licenses, registered entities, distribution line length, customers, reliability, energy losses, electricity sales, unit costs, and financial performance. The legal analysis also uses EWURA's official regulatory-tools and licensing pages, the Electricity (Generation, Transmission and Distribution Activities) Rules, 2024, and the Electricity (Development of Small Power Projects) Rules listed by EWURA in 2025.⁷

The article does not claim to present original survey or interview findings. It therefore does not infer investor attitudes or consumer perceptions without primary field evidence. The empirical analysis is descriptive and interpretive. High market concentration is treated as evidence of limited structural competition, but not as conclusive proof that any single provision caused the concentration. Causal conclusions would require additional fieldwork, applicant-level licensing records, transaction data, and comparative analysis. The legal analysis focuses on Tanzania Mainland. It does not purport to provide legal advice or a complete review of every tax, land, environmental, procurement, financing, competition, employment, and public-private partnership rule that may apply to a specific transaction.

3. Conceptual and Analytical Framework

3.1 Natural monopoly and electricity distribution

Natural monopoly theory explains why a single electricity-distribution network may be more efficient than several competing networks built over the same territory. The high fixed cost of network infrastructure, together with the geographic character of distribution, can produce economies of scale and scope. Duplication may increase the total cost of supplying customers.

The natural-monopoly rationale supports regulation of prices, access, service quality, safety, investment, and entry. It does not necessarily support permanent state ownership. A natural monopoly may be operated through a state-owned utility, a private regulated utility, a concession, a municipal entity, or a competitively selected service provider. The policy question is therefore whether the institutional arrangement produces efficient, reliable, affordable, and accountable service.

3.2 State monopoly and effective competition

A state monopoly exists where the State owns, controls, protects, or substantially dominates the relevant supply activity. In electricity distribution, state monopoly may result from public ownership of network assets, exclusive service areas, incumbent control over access, vertically integrated operations, public

² *Electricity Act of 2008 [Cap 131 R.E 2023]*

³ *Energy and Water Utilities Regulatory Authority Act, [Cap 414 of 2006 R. E 2023]*

⁴ *Energy and Water Utilities Regulatory Authority Act, [Cap 414 of 2006 R. E 2023]*

⁵ *Electricity Act of 2008 [Cap 131 R.E 2023]*

⁶ *EWURA's Electricity Sub-Sector Regulatory Performance Report for FY2024/25,*

⁷ *the Electricity (Development of Small Power Projects) Rules 2024.*



procurement decisions, or rules that make private entry commercially impracticable.⁸ State monopoly should be distinguished from natural monopoly. Natural monopoly is an economic condition concerning the cost structure of an industry. State monopoly is an institutional condition concerning ownership and control.⁹ The presence of the first does not automatically require the second. A distribution network can remain a single regulated network while its operation is awarded through competition for the market.¹⁰

3.3 Regulatory barriers

A regulatory barrier is a legal, administrative, institutional, or economic condition that increases the cost, time, uncertainty, or difficulty of entering or operating in a market.¹¹ A requirement is not a barrier merely because it imposes a duty. Licensing and technical standards may be necessary to protect consumers. The critical assessment is whether the requirement is clear, proportionate, transparent, time-bound, non-discriminatory, and connected to a legitimate public-interest objective. Regulatory barriers relevant to private direct distribution include licensing conditions, approval delays, tariff uncertainty, restrictions on network access, unclear service territories, land and way leave requirements, universal-service obligations, compliance costs, uncertain grid-arrival treatment, and weak dispute-resolution mechanisms¹².

3.4 Private-sector direct distribution

Private-sector direct distribution refers to a privately owned, privately financed, or privately operated entity supplying electricity directly to customers through a distribution network. The model may involve ownership of the network, a concession, a public-private partnership, a mini-grid, a service-area contract, or a management arrangement. It does not necessarily require complete privatization of the national electricity system.

This distinction matters because the policy choice is not simply between an entirely state-owned system and an entirely private system. Tanzania could retain public ownership of strategic infrastructure while allowing private firms to build, own, operate, or manage networks in clearly defined areas under regulated conditions.

4. Existing Legal and Regulatory

⁸ *The Electricity (Market Re- Organization and promotion of competition) Regulations*, 2016

⁹ Chaplin et al., (2017) *A bumpy road toward energy for everyone: The challenges of transforming an industry focused colonial energy system*.

¹⁰ T. J. D'Irenzo, & L. Scott (1988), *Monopoly Government on Unfair Competition: The Profit of nonprofits* (Hamilton Press,

¹¹ Tirole, (2017), *Imperfect Competition and Regulation of the Electric Power Industry*.

¹² Joskow, (2014), *Incentive Regulation in Theory and Practice: Electricity Distribution and Transmission Networks*

Framework

4.1 Electricity Act, 2008

The Electricity Act, 2008 is the principal legislation governing electricity activities in Tanzania Mainland. It provides the framework for ministerial powers, regulatory authority functions, operating licenses, license rights and obligations, information and reporting, system and market operation, distribution licenses, tariffs, power-purchase agreements, consumer rights, and service obligations.¹³ The Act requires persons intending to undertake specified electricity activities to obtain a license unless an exemption applies. EWURA's official licensing guidance explains that the licensing requirement covers generation, transmission, distribution, supply, system operation, cross-border trade, physical and financial electricity trade, and electrical installation activities. The same guidance states that EWURA issues licenses for activities above one megawatt and registration applies to activities below one megawatt.¹⁴

The statutory framework therefore recognizes that electricity distribution is a regulated activity rather than an ordinary unregulated commercial activity. The requirement for a license can be justified by the need to assess technical capability, financial capacity, system security, consumer protection, and the proposed service area. However, a licensing requirement may affect competition if the application process is lengthy, expensive, unclear, duplicative, or subject to inconsistent decisions.¹⁵

4.2 EWURA's regulatory mandate and subsidiary instruments

EWURA's official regulatory-tools page states that section 40 of the EWURA Act and section

45 of the Electricity Act empower the Authority to make subsidiary regulatory tools, including rules, codes, guidelines, manuals, and declarations. The page lists the Electricity Act, the 2024 generation, transmission and distribution rules, the 2025 small-power-project rules, licensing-fee rules, tariff instruments, and performance reports among the instruments used to regulate the electricity subsector.¹⁶

The existence of multiple instruments may improve regulatory precision, but it also increases the importance of consolidation and accessibility. A prospective investor must understand not only the Electricity Act but also licensing rules, tariff rules, technical standards, land requirements, environmental procedures, procurement arrangements, and any rules governing connection to the main grid. If the regulatory framework is dispersed or

¹³ *The Electricity Act, of 2008 [Cap 131 R.E. 2023]*

¹⁴ *The Electricity Act, of 2008 [Cap 131 R.E. 2023]*

¹⁵ *Energy and Water Utilities Regulatory Authority Act, [Cap 414 of 2006 R. E 2023]*

¹⁶ *Energy and Water Utilities Regulatory Authority Act, [Cap 414 of 2006 R. E 2023]*



frequently amended without clear transition provisions, legal compliance becomes more costly and investment risk increases.¹⁷

4.3 Electricity (Generation, Transmission and Distribution Activities) Rules, 2024

The 2024 Rules provide detailed licensing and operational requirements. They address applications for licenses, publication of license applications, provisional licenses, grant and duration of licenses, suspension and revocation, and the conditions governing electricity generation, transmission, and distribution.¹⁸

For private distribution applicants, the significance of these rules lies in the information and demonstration requirements. Applicants may need to provide evidence concerning technical and financial capability, project feasibility, proposed service areas, available electricity, network design, and expansion plans. These requirements can protect consumers by screening out incapable operators. They may also create entry barriers where documentation is disproportionate to project scale or where an applicant must obtain support from several public institutions before the project can proceed.¹⁹

The rules should therefore be assessed according to their administration in practice. Relevant indicators include the time taken to decide complete applications, the number of applications returned for deficiencies, the cost of preparing the required information, the number of appeals, and the consistency with which requirements are applied to the incumbent and private applicants.²⁰

4.4 Tariff regulation

Tariff regulation is central to electricity distribution because customers are dependent on the network operator and may have limited ability to switch to an alternative network. Regulation is intended to prevent excessive monopoly pricing while permitting recovery of efficient operating expenditure, capital expenditure, financing costs, and a reasonable return.²¹ From an investment perspective, tariff regulation becomes a barrier where the investor cannot predict the revenue that will be recognized over the life of the project. Important questions include the treatment of prudent costs, capital expenditure, technical and commercial losses, depreciation, foreign-exchange movements, inflation, connection charges, subsidies, cross-subsidies, and the timing of tariff decisions.

The Electricity Act provides for tariff regulation and tariff applications, while EWURA's regulatory framework includes tariff

instruments and tariff orders.²² The legal challenge is to reconcile affordability and universal access with financial viability. Where Government requires tariffs below the efficient cost of service, the subsidy should be explicit and financed transparently rather than transferred invisibly to the private operator.

4.5 Small-power and decentralized distribution

The official EWURA regulatory-tools page lists the Electricity (Development of Small Power Projects) Rules 2025, Government Notice No. 640, as a current regulatory instrument. Small-power and mini-grid arrangements are important because they offer a practical route for private-sector participation without requiring immediate transfer of the national distribution network.²³

Decentralized projects nevertheless face distinctive legal and economic risks. A developer may need to determine the future status of its network if the main grid arrives. The framework should clarify whether the private system may interconnect, continue operating, transfer its assets, receive compensation, or serve a defined customer group. Uncertainty in this area can reduce the expected value of the investment and make financing more difficult.²⁴

5. Empirical Evidence on Market Structure and Performance

5.1 Number of licensed and registered entities

EWURA reported that, as of June 2025, two entities held licenses for electricity-distribution activities above one megawatt. It also reported that five entities were registered for distribution activities below one megawatt.²⁵

The data demonstrate that private distribution is not completely excluded. However, the small number of large-scale licensed entities indicates that formal legal openness has not Category Regulatory threshold Entities as of June 2025 Implication Licensed distribution activities Above 1 MW 2 Large-scale distribution is highly concentrated. Registered distribution activities Below 1 MW 5nSmaller and decentralized participation exists but is limited. Resulted in broad competition in the principal distribution market. The distinction between licensing above one megawatt and registration below one megawatt also suggests that participation may be more feasible at the smaller or decentralized margin than in the main distribution network.

5.2 Distribution-network concentration

EWURA reported total distribution line length of 214,343.67 kilometres in FY2024/25, compared with 188,883.08 kilometres in FY2023/24. This represented an increase of 25,460.59 kilometres, or 13.48 per cent. TANESCO contributed 213,278.32 kilometres, equivalent to 99.50 per cent of the total reported line length. Licensed entities together contributed 213,726.82 kilometres, or

¹⁷ *Energy and Water Utilities Regulatory Authority Act, [Cap 414 of 2006 R. E 2023]*

¹⁸ *Electricity (Generation, Transmission and Distribution Activities) Rules, 2024*

¹⁹ *Energy and Water Utilities Regulatory Authority Act, [Cap 414 of 2006 R. E 2023]*

²⁰ *Ibid p. 17*

²¹ *The Energy and Water Utilities Authority (Fees and Levies Collection procedure) Rules, 2021- GN 420*

²² *The Electricity Act, of 2008 [Cap 131 R.E. 2023]*

²³ *Electricity (Development of Small Power Projects) Rules 2025, Government Notice No. 640,*

²⁴ *Ibid Rule 4*

²⁵ *EWURA's Electricity Sub-Sector Regulatory Performance Report for FY2024/25,*



99.71 per cent.²⁶ This is strong evidence of physical infrastructure concentration. It does not prove that private firms are legally barred from entry, nor does route length measure customer-weighted or revenue-weighted market share. It does show, however, that private participation has not produced significant diversification of ownership or operation of the physical distribution network. The finding has competitive implications. An operator controlling almost all distribution infrastructures may influence access to customers, network information, connection procedures, electricity supply, technical interfaces, and investment opportunities. Even where tariffs are regulated, the absence of alternative network operators may limit customer choice and reduce competitive pressure on service quality and innovation.

5.3 Network and customer growth

The distribution system expanded during Financial Year 2024/25. Connected customers increased from 4,982,259 in Financial Year 2023/24 to 5,485,676 in Financial Year 2024/25, an increase of 503,417 customers, or 10.10 per cent. 1 Indicator Financial Year 2023/24 FY2024/25 Change or share Total distribution line length 188,883.08 km 214,343.67 km +25,460.59 km; 13.48% TANESCO distribution line length. Not reported in comparable form 213,278.32 km 99.50% of total Licensed-entity line length. Not reported in comparable form 213,726.82 km 99.71% of total implied non-TANESCO line share Approximately 1,065.35 km approximately 0.50%.²⁷

This finding requires a balanced interpretation. It demonstrates that a state-dominated system can deliver network expansion and customer growth. It would therefore be inaccurate to conclude that state monopoly necessarily produces no investment or no development. The more important policy question is whether the expansion is financially sustainable, whether it is accompanied by adequate reliability and service quality, and whether private capital and management could complement public investment. EWURA also reported historical increases in electricity accessibility from 67.5 per cent in Financial Year 2016/17 to 78.4 per cent in Financial Year 2019/20 and connectivity from 32.8 per cent to 37.7 per cent over the same period.²⁸

5.4 Reliability performance

EWURA assessed reliability using SAIFI, SAIDI, and CAIDI. TANESCO's SAIFI was 17.69,

within the reported target of less than 26. Its SAIDI was 1,692.73 minutes, above the target of less than 1,536 minutes. Its CAIDI was 95.55 minutes, above the target of less than 59 minutes.²⁹

²⁶ EWURA's *Electricity Sub-Sector Regulatory Performance Report for FY2024/25*,

²⁷ EWURA's *Electricity Sub-Sector Regulatory Performance Report for FY2024/25*,

²⁸ EWURA's *Electricity Sub-Sector Regulatory Performance Report for FY2024/25*,

²⁹ EWURA's *Electricity Sub-Sector Regulatory Performance Report for FY2024/25*,

The results are mixed. TANESCO met the reported frequency target, but average outage duration and average duration per interruption exceeded the targets. This finding is relevant to the debate on competition because it shows that state ownership does not automatically guarantee performance against every reliability measure. It also shows why private participation should be linked to measurable service-quality obligations rather than justified only by ownership change.³⁰

The report recorded different results for Mwenga and Andoya, but the entities operate networks that may differ in size, geography, customer mix, technology, and reporting coverage. The comparison should therefore be treated as indicative rather than as a definitive ranking of efficiency. Indicator TANESCO Financial ear Y2024/25 Reported target Interpretation SAIFI 17.69 26 within target. SAIDI 1,692.73 minutes 1,536 minutes 156.73 minutes, approximately 10%, above target. CAIDI 95.55 minutes 59 minutes 36.55 minutes, approximately 61%, above target.

5.5 Energy losses

EWURA reported TANESCO's total energy losses at 13.86 per cent in Financial Year 2024/25. Transmission losses were 5.86 per cent, against a target of less than 5.88 per cent, and distribution losses were 8.29 per cent, against a target of less than 9 per cent. Mwenga recorded distribution losses of 6 per cent and Andoya 1.31 per cent.³¹

The loss data do not support an argument that the incumbent's performance is uniformly poor. TANESCO met the reported distribution-loss target. However, even losses within a target have economic significance because they represent electricity that does not become billed or useful consumption. Private participation could contribute to loss-reduction innovation, metering, payment systems, and network management, but the case should be evaluated through performance benchmarks rather than assumptions.

5.6 Sales, costs, and financial performance

EWURA reported a 17 per cent increase in TANESCO electricity sales during FY2024/25 compared with 12 per cent in the previous year. The report associated this increase with 474,301 new connections and an average 19 per cent increase in power consumption. It also reported that average unit cost fell from TZS 283/kWh in FY2023/24 to TZS 260/kWh in FY2024/25, an 8 per cent decrease.³²

The report further recorded a TANESCO profit-margin ratio of 22 per cent in FY2024/25 compared with 0.3 per cent in FY2023/24. These results suggest improved short-term commercial performance. They do not, however, establish that the regulatory framework is fully bankable for private distributors. A private

³⁰ Ibid p 13,

³¹ EWURA's *Electricity Sub-Sector Regulatory Performance Report for FY2024/25*,

³² EWURA's *Electricity Sub-Sector Regulatory Performance Report for FY2024/25*,

project requires long-term certainty Entity or component FY2024/25 loss Target where reported Result TANESCO total 13.86% Combined

transmission and distribution losses. TANESCO transmission 5.86% 5.88% within target. TANESCO distribution 8.29% 9.00% within target. Mwenga distribution 6.00% Reported lower than TANESCO distribution loss.³³ Andoya distribution 1.31% Reported lower than TANESCO distribution loss. Concerning tariffs demand, operating costs, capital expenditure, network access, losses, and the treatment of public-service obligations. The evidence therefore supports a qualified interpretation. State-dominated provision can be associated with network growth, customer expansion, improved sales, and better annual financial results.

At the same time, the market remains highly concentrated, and reliability results are mixed. The policy case for private participation should rest on diversification, innovation, access to finance, service-quality incentives, and competition for suitable areas not on the unsupported assertion that the public utility has failed in every respect.³⁴

6. Assessment of Regulatory Barriers

6.1 Licensing and qualification barrier

The legal requirement to obtain a license is a necessary public safeguard, but it can become a barrier when the application burden is disproportionate or unpredictable. Technical and financial qualification requirements may favour large firms with specialist legal, engineering, and financial teams. Smaller Tanzanian enterprises may possess a viable project but lack the resources to prepare extensive feasibility, network, and financial documentation.³⁵

A proportionate system should maintain safety and financial-viability standards while adjusting application fees, reporting, and documentation to the scale and risk of the project. Smaller registered systems should have a clear pathway to a license if they expand beyond the relevant threshold.

6.2 Multi-institutional approval barrier

Direct electricity distribution requires more than an electricity license. Developers may also need land, way leaves, environmental approvals, local-government cooperation, construction permissions, financing arrangements, and network-connection decisions. The WRI study on Tanzanian mini-grids identified

multiple project-development steps and non- energy clearances that could delay private projects.³⁶

The cumulative transaction cost may be more important than any single legal requirement. Delays increase pre-revenue expenditure, create uncertainty for lenders, and may cause developers to abandon or redesign projects. A coordinated approval mechanism should preserve each institution's legal mandate while providing a single project pathway, a consolidated checklist, published timelines, and an accountable lead agency.

6.3 Tariff and cost-recovery barrier

Tariff regulation can discourage private investment where the investor cannot predict whether prudent expenditure and capital investment will be recognized. The problem is particularly serious for distribution because the assets are long-lived and revenue depends on regulated charges and customer demand.³⁷ A sustainable framework should distinguish between efficient costs and inefficiency, provide transparent reasons for tariff decisions, and include periodic adjustment mechanisms.³⁸ Social tariffs and universal-service obligations should be funded openly. Otherwise, the private operator may be expected to provide an unfunded public subsidy, while consumers and taxpayers cannot see the actual cost of the policy.³⁹

6.4 Incumbent and infrastructure-access barrier

TANESCO's reported 99.50 per cent share of the distribution network creates structural dependence for private operators. A private firm may obtain a license but still be unable to serve customers without access to electricity supply, network information, interconnection facilities, technical standards, and a defined service area. The law should therefore require transparent access and connection procedures, published charges, capacity information, queue-management rules, response timelines, and written reasons for refusal. Access and connection disputes should be capable of independent regulatory review. These safeguards are not evidence that TANESCO has engaged in unlawful discrimination; they are necessary because infrastructure concentration creates the possibility and significance of unequal access.⁴⁰

6.5 Land, way leave, and environmental barrier

³⁶ *Electricity (Development of Small Power Projects) Rules 2025, Government Notice No. 640,*

³⁷ *The Energy and Water Utilities Authority (Fees and Levies Collection procedure) Rules, 2021- GN 420*

³⁸ *Energy and Water Utilities Regulatory Authority Act, [Cap 414 of 2006 R. E 2023]*

³⁹ *The Electricity (Licensing and Registration Fees) Rules, 2022*

⁴⁰ *Energy and Water Utilities Regulatory Authority Act, [Cap 414 of 2006 R. E 2023]*

⁴⁰ *The Energy and Water Utilities Authority (Fees and Levies Collection procedure) Rules, 2021- GN 420*

³³ *EWURA's Electricity Sub-Sector Regulatory Performance Report for FY2024/25,*

³⁴ *Electricity (Development of Small Power Projects) Rules 2025, Government Notice No. 640,*

³⁵ *The Energy and Water Utilities Authority (Fees and Levies Collection procedure) Rules, 2021- GN 420*



Distribution networks require rights of way, poles, substations, and access to private or public land. Land acquisition and way leave procedures may be slow, costly, and institutionally fragmented. Environmental and local-government approvals can also affect construction time and project viability. The solution is not to remove environmental or land protections.⁴¹ It is to coordinate them, publish requirements, create predictable compensation procedures, and integrate them into the project timetable. The investor should know at an early stage whether the proposed service area can legally and physically accommodate the network.

6.6 Universal-service and performance barrier

Private operators are expected to meet technical standards, provide reliable service, protect consumers, and possibly extend supply to low-income or remote customers. These are legitimate obligations. They become investment barriers when they are open-ended, unpriced, or imposed without a subsidy or service-area design that reflects their cost. The Government should specify universal-service obligations before procurement or licensing and identify the source of financing. Performance obligations should be measurable through SAIFI, SAIDI, CAIDI, loss rates, connection time, complaint resolution, safety, and restoration indicators. Operators should be monitored against comparable standards while recognizing differences in network type and geography.⁴²

6.7 Grid-arrival and decentralized-project barrier

Private mini-grids may face uncertainty when the national grid reaches their service area. If the law does not specify whether the private operator may continue, interconnect, transfer assets, receive compensation, or retain customers, the possibility of grid arrival reduces the expected value of the original investment. Clear grid-arrival rules should address asset valuation, compensation, outstanding debt, customer migration, interconnection, service continuity, and decision timelines. These rules would reduce the risk of stranded assets and make decentralized projects more attractive to lenders.

7. Discussion

The legal framework reflects a public-interest model: the State regulates electricity distribution because the service is essential, network-based, safety-sensitive, and subject to market power. The framework is therefore not inherently inconsistent with private participation. Indeed, the licensing and regulatory structure creates a legal pathway for private entities to participate. The empirical evidence shows, however, that formal permission and effective participation are different. Two licensed entities above one megawatt, five registered entities below one megawatt and TANESCO's 99.50 per cent network share indicate that private participation remains limited in scale. The market is not closed in law, but it is highly concentrated in practice.⁴³

⁴¹ Energy and Water Utilities Regulatory Authority (EWURA)

⁴² Energy and Water Utilities Regulatory Authority Act, [Cap 414 of 2006 R. E 2023]

⁴³ EWURA's Electricity Sub-Sector Regulatory Performance Report for FY2024/25,

Natural-monopoly theory explains why there may be one network in a defined locality. It does not explain why nearly all distribution infrastructures must remain under one state- owned operator. Competition can be introduced through competitive concessions, service- area procurement, mini-grids, open access, management contracts, and private investment in metering and loss reduction.⁴⁴ The most appropriate reform may therefore be competition for the market rather than unrestricted duplication within the market. Incentive-regulation theory explains why tariffs and performance standards are difficult to design. The regulator must protect consumers from monopoly pricing while providing enough revenue certainty to support prudent investment. The regulator also faces an information disadvantage because the utility knows more about network costs, losses, reliability, and investment needs. Strong accounting, data disclosure, benchmarking, auditing, public reasons, and periodic reviews are therefore essential.⁴⁵

Public-choice and regulatory-capture perspectives add a further institutional warning. The State may own the incumbent, set policy, control public investment, and influence the regulatory environment. The available data do not prove regulatory capture or unlawful discrimination. They do demonstrate that competitive neutrality deserves explicit legal protection because a dominant incumbent can affect access, investment opportunities, and the practical ability of entrants to reach customers.

The findings also caution against a simplistic pro-privatization conclusion. TANESCO expanded the network and customer base, met the reported SAIFI and distribution-loss targets, increased sales, reduced average unit cost, and recorded improved short-term financial performance in FY2024/25. The case for private participation should therefore be framed as a means of diversifying investment, improving contestability, mobilizing specialized capacity, and creating stronger performance incentives not as an assumption that public provision has no achievements.

8. Recommendations

8.1 Adopt a regulated and phased market-opening strategy

Tanzania should not begin with an irreversible nationwide sale of distribution assets. It should first test concessions, public-private partnerships, competitively procured service areas, mini-grids, management contracts, and performance-based arrangements. Each pilot should be evaluated against a public-sector counterfactual before expansion.

8.2 Establish competitive-neutrality rules

The Government should publish rules requiring non-discriminatory treatment of state- owned and private participants in access, connection, procurement, information, technical interfaces, and dispute resolution. TANESCO's commercial and regulated

⁴⁴ The Electricity (Market Re- Organization and promotion of competition) Regulations, 2016

⁴⁵ EWURA's Electricity Sub-Sector Regulatory Performance Report for FY2024/25,



functions should be financially ring-fenced, and transactions between separated activities should be transparent.

8.3 Create a coordinated approval pathway

A one-stop project mechanism should coordinate electricity licensing, environmental approval, land and way leave matters, local-government permissions, and grid connection. It should provide a consolidated checklist, a lead agency, published timelines, electronic tracking, and written reasons for delay or rejection.

8.4 Apply proportionate licensing

Licensing and compliance requirements should reflect project size, customer numbers, network voltage, technology, geography, and system risk. Smaller projects should receive procedural simplification without exemption from safety, financial viability, technical, consumer-protection, and environmental requirements.

8.5 Improve tariff predictability and public-service financing

Tariff rules should clearly address prudent operating costs, capital expenditure, depreciation, financing costs, losses, inflation, exchange-rate changes, and reasonable returns. Where affordability policies require below-cost tariffs, the subsidy should be explicit, targeted, and transparently financed.

8.6 Guarantee transparent network access and service areas

The framework should publish access procedures, connection charges, capacity information, technical standards, queue rules, decision timelines, and reasons for refusal. Service territories should be defined clearly, and access disputes should be subject to independent regulatory review.

8.7 Clarify grid-arrival and asset-compensation rules

The small-power framework should establish predictable rules for interconnection, continuation, transfer, compensation, debt treatment, and customer protection when the main grid reaches a privately operated network. Clear rules would reduce stranded-asset risk and improve project bankability.

8.8 Strengthen performance -based regulation

All operators should report comparable indicators, including System Average Interruption Frequency Index (SAIFI), The System Average Interruption Duration Index (SAIDI), The Customer Average Interruption Duration Index (CAIDI), technical and commercial losses, connection time, customer complaints, safety incidents, investment delivery, and restoration time. The data should be published regularly and adjusted for meaningful differences in network type and geography.

8.9 Improve access to finance and local participation

The Government and development-finance institutions should consider credit guarantees, concessional finance, viability-gap support, local-currency instruments, and technical assistance for smaller Tanzanian developers. Public support should be transparent and tied to measurable connections, reliability, losses, and service-quality results.

9. Conclusion

The existing legal framework in Tanzania Mainland permits private-sector participation in electricity distribution, but legal permission has not produced substantial structural competition. The sector remains highly concentrated as of June 2025, TANESCO owned approximately 99.50 per cent of the reported distribution line length, only two entities held licenses above one megawatt, and five entities were registered below one megawatt. The principal regulatory barriers are cumulative rather than absolute. Licensing and technical requirements, multiple approvals, tariff and cost-recovery uncertainty, incumbent- controlled infrastructure, land and way leave processes, universal-service duties, and grid- arrival uncertainty can increase the cost and risk of private direct distribution. These barriers may be legitimate where they protect safety, affordability, reliability, and universal access. They become problematic where they are unclear, disproportionate, uncoordinated, discriminatory, or unsupported by predictable financing and subsidy arrangements.

The evidence does not support a conclusion that state ownership has produced no benefits. Tanzania recorded substantial network and customer growth, improved sales and average unit costs, and compliance with some performance targets. The stronger conclusion is that public expansion and private participation should not be treated as mutually exclusive. A regulated and accountable opening of suitable distribution functions may complement public investment while increasing contestability and innovation.

Tanzania should therefore priorities competitive neutrality, coordinated approvals, proportionate licensing, predictable tariffs, transparent access, competition for service areas, clear decentralized-project rules, performance-based regulation, and consumer protection. Full privatization should remain a conditional option to be considered only after these foundations are established and independently evaluated. The decisive test is whether any ownership or operating arrangement produces reliable, affordable, financially sustainable, and accountable electricity distribution for customers.

REFERENCES

1. Electricity (Development of Small Power Projects) Rules 2025, Government Notice No. 640,
2. Electricity (Generation, Transmission and Distribution Activities) Rules, 2024
3. Electricity (Generation, Transmission and Distribution Activities) Rules, 2024, Government Notice No. 677."
4. Electricity Act of 2008 [Cap 131 R.E 2023]
5. Energy and Water Utilities Regulatory Authority (EWURA)
6. Energy and Water Utilities Regulatory Authority Act, [Cap 414 of 2006 R. E 2023]
7. Energy and Water Utilities Regulatory Authority, Electricity Licensing and Registration.
8. Energy and Water Utilities Regulatory Authority, Electricity Regulatory Tools.

9. Energy and Water Utilities Regulatory Authority, the Electricity Sub-Sector Regulatory
10. EWURA's Electricity Sub-Sector Regulatory Performance Report for FY2024/25, <https://www.ewura.go.tz/uploads/documents/en-1745561985-> Joskow, P. L., Incentive Regulation in Theory and Practice: Electricity Distribution and Transmission Networks. (2014)
11. Odarno, L., Sawe, E., Swai, M., Katyega, M. J. J., & Lee, A., Accelerating Mini-grid Deployment in Sub-Saharan Africa: Lessons from Tanzania. World Resources Institute and TaTEDO.
12. Oxford Institute for Energy Studies, Sustainable Electricity Pricing for Tanzania. Performance Report for the Financial Year 2024/2025.
13. R. Eric Policy for electrification access in Africa countries: the case of Tanzania (2013),
14. Ruwaida, Mani. The role of electricity in industrial development, The Energy Journal 19 (2), 7-24, 2022
15. The Electricity (Licensing and Registration Fees) Rules, 2022
16. The Electricity (Development of Small Power Projects) Rules 2024.
17. The Electricity (Market Re- Organization and promotion of competition) Regulations, 2016
18. The Electricity Act, of 2008 [Cap 131 R.E. 2023]
19. The Energy and Water Utilities Authority (Fees and Levies Collection procedure) Rules, 2021- GN 420
20. The Energy and Water Utilities Authority (Fees and Levies Collection procedure) Rules, 2021- GN 420
21. The Energy and Water Utilities Authority (Fees and Levies Collection procedure) Rules, 2021- GN 420
22. Toulouse School of Economics, Jean Tirole: Imperfect Competition and Regulation of the Electric Power Industry.
23. United Republic of Tanzania, Electricity Supply Industry Reform Strategy and Roadmap.
24. World Bank (1993). The World Bank's role in the electric power sector: Policies for effective institutional, regulatory, and financial reform. World Bank, Washington, D.C
25. Z. Elias & C. Anna A Comparative analysis of electricity access initiatives in Sub Saharan Africa (2023);