AFRICAN DEVELOPMENT BANK (AFDB)



Strengthening Regulatory Frameworks in the African electricity sector:Case studies of Djibouti, DRC, Madagascar, and Lesotho

KNOWLEDGE PAPER - LESOTHOFINAL

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The findings, interpretations and conclusions expressed herein are those of the authors and do not necessarily reflect the official views of the African Development Bank or any participating institution.

2. Executive Summary

Electricity sectors across Africa face an increasingly complex challenge: expanding access, integrating renewable energy, improving quality of service and maintaining affordability, while ensuring the financial sustainability of utilities. Lesotho illustrates many of these challenges. Despite ongoing electrification and renewable energy development, the country continues to depend on imported electricity, faces increasing supply costs and requires investment in network expansion, asset renewal and service-quality improvements.

Against this backdrop, the AESTAP technical assistance (TA) programme in Lesotho provides practical lessons for African policymakers and regulators. The TA delivered an integrated Cost-of-Service (CoS) model, tariff guidelines, a review of quality-of-service indicators and associated capacity-building activities. It also set out recommendations for further regulatory and institutional reforms, whose adoption and implementation remain the responsibility of the relevant Lesotho institutions. Taken together, these outputs and proposed next steps show how technical assistance can move beyond diagnostics and contribute to a more durable regulatory framework that supports financial sustainability, investment readiness and better service outcomes.

2.1. Key messages

- Regulatory strengthening requires more than tariff adjustments. It requires analytical models, reliable data systems and institutional capabilities that support evidence-based decision-making.
- Financial sustainability is a prerequisite for expanding access, mobilising investment in electricity infrastructure and improving service quality.
- Tariff structures are as important as tariff levels. Well-designed tariffs improve cost recovery, send more efficient economic signals and reduce financial risks for utilities.
- Quality-of-service regulation should be integrated into economic regulation through clear performance indicators, reporting requirements and accountability mechanisms.
- Data quality and regulatory capacity are strategic enablers of sustainable sector reform and should be treated as core elements of regulatory strengthening.
- Regulatory digitalisation, fit-for-purpose information systems, sustained capacity building and clear coordination among the national electricity regulator, national electricity utility, the responsible energy ministry and the national delivery and monitoring unit are essential to embed the TA outputs in routine regulatory practice.

2.2. Core policy recommendations

- Establish transparent and regularly updated revenue requirement models to support tariff reviews and long-term planning.
- Move progressively towards cost-reflective tariffs while protecting vulnerable consumers through targeted affordability mechanisms.
- Modernise tariff structures to reflect customer-related, demand-related and energy-related cost drivers.
- Integrate quality-of-service indicators into tariff regulation and utility performance evaluation.
- Strengthen regulatory reporting systems, data governance frameworks and institutional capacity as foundational elements of regulatory reform.

- Ensure regulatory frameworks support renewable energy integration, private investment and long-term energy-transition objectives.

The table below summarises what was achieved under the TA and the principal implementation priorities required to translate these outputs into sustainable regulatory outcomes.

Area	What the TA Delivered	What Remains for Implementation
Economic Regulation and Tariff Setting	The TA developed a Cost-of-Service (CoS) model, quantified the utility's revenue requirement, assessed tariff adequacy, and produced tariff design and tariff methodology recommendations to support future regulatory decisions.	The regulator and sector stakeholders should formally adopt and institutionalise the CoS methodology within future tariff review processes, update it periodically with new data, and use it as a decision-support tool for tariff determinations.
Utility Financial Sustainability	The TA identified the gap between existing tariffs and cost-reflective revenue requirements and analysed the implications of under-recovery on sector sustainability, utility performance and future investment needs.	Future tariff decisions should progressively close the identified revenue gap while balancing affordability, investment requirements and service-quality objectives.
Tariff Structure Modernisation	The TA assessed the existing tariff structure, carried out cost classification and allocation analyses, benchmarked regional practices, and developed recommendations for more cost-reflective tariff structures.	Regulatory authorities and sector stakeholders should evaluate, approve and gradually implement the proposed tariff-structure reforms, while periodically reviewing them to reflect evolving consumption patterns and system costs.
Quality-of-Service Regulation	The TA reviewed the existing KPI framework, benchmarked international practices and proposed an enhanced quality-of-service monitoring framework with clearer indicators, methodologies and reporting requirements.	The regulator should integrate the revised KPI framework into routine regulatory oversight, establish monitoring mechanisms and ensure consistent reporting and enforcement of performance requirements.
Data and Regulatory Information Systems	The TA identified data gaps, reporting weaknesses and information-management challenges affecting tariff reviews, KPI monitoring and regulatory decision-making.	Sector institutions should strengthen data governance arrangements, improve data quality controls and progressively modernise regulatory information and reporting systems.
Institutional Capacity and Knowledge Transfer	The TA included stakeholder engagement, model walk-throughs, capacity-building activities and knowledge-transfer sessions aimed at strengthening the technical capabilities of participating institutions.	Continued capacity building, staff training and institutional ownership of the models and methodologies will be required to ensure long-term sustainability and effective application of the TA outputs.

3. Policy context and problem definition

The case-study country's electricity sector is at a critical stage of development. The national government has set ambitious objectives to expand electricity access, improve energy security, increase the contribution of domestic renewable energy resources, and support economic growth through reliable and affordable electricity services. These objectives are reflected in national energy policies and development plans, while the regulatory oversight of the sector is entrusted to the national electricity regulator. The sector is characterized by a partially liberalized structure, with public and private participation in generation, a state-owned utility responsible for transmission, distribution and supply activities, and a growing pipeline of renewable energy projects.

Despite these developments, the sector faces structural challenges that affect its financial sustainability and long-term ability to support the country's development objectives. Domestic electricity production remains insufficient to meet demand, resulting in a continued dependence on imported electricity. While electricity demand and access have increased over time, the cost of electricity supply has risen significantly, largely due to increasing bulk power purchase costs. At the same time, the utility must continue to invest in network reinforcement, maintenance, and service quality improvements to respond to growing demand and support further electrification.

Access to electricity remains another important policy challenge. Electrification levels remain low, particularly in rural areas. Expanding access while maintaining affordable tariffs requires a delicate balance between social policy objectives and the financial sustainability of sector institutions.

A central issue is that existing tariffs are not fully aligned with the underlying cost of providing electricity services. Current tariff rates do not consistently recover the full cost of supply while simultaneously supporting investment requirements and ensuring an appropriate return on capital. In addition, the lifeline tariff is applied broadly across domestic customers rather than being targeted to vulnerable households, limiting the effectiveness of affordability measures and creating financial pressures on the utility. As a result, tariff revenues are insufficient to support required investments, maintain service quality, and ensure the long-term sustainability of the electricity sector.

These financial challenges are compounded by operational and service quality concerns. Stakeholders have repeatedly expressed concerns regarding service reliability, network interruptions, and load shedding. Existing quality-of-service standards provide a useful regulatory basis, but the effectiveness of monitoring and enforcement mechanisms remains limited. The combination of aging infrastructure, constrained financial resources, and increasing service expectations highlights the need for a stronger regulatory framework capable of aligning utility performance, investment incentives, and consumer interests.

Against this backdrop, an updated Cost of Service Study (CoSS) was required to establish an evidence-based assessment of the utility's revenue requirement, improve cost allocation across customer categories, support the transition towards cost-reflective tariffs, and strengthen the regulator's capacity to regulate the sector effectively. Addressing these challenges is essential to ensure the financial viability of the electricity sector, increase investment in the sector, improve service quality, and support the case-study country's broader objectives of energy security, renewable energy development, and universal access.

Effective implementation will depend on clear institutional ownership and coordination. The national electricity regulator would apply the regulatory tools and oversee tariff and quality-of-service processes, while the national electricity utility would provide reliable operational, financial and customer data and implement approved regulatory requirements. Relevant public authorities would retain responsibility for sector policy, affordability measures and alignment with national energy and

investment priorities. A designated national coordination mechanism could help sustain follow-up across institutions, sequence complementary technical assistance and monitor implementation of agreed actions.

4. Insights from AESTAP Technical Assistance Programs

4.1. Strengthening Economic Regulation as a Foundation for Sector Sustainability

One of the most significant outcomes of the AESTAP Technical Assistance (TA) programme in the case-study country is the development of an integrated Cost of Service (CoS) model for both the regulator and the national electricity utility. The model provides the regulator with a practical regulatory tool to determine revenue requirements, assess tariff adequacy, evaluate customer cost allocation, and analyse alternative tariff scenarios. More importantly, it establishes a transparent and evidence-based foundation for future tariff reviews, reducing reliance on ad hoc assessments and enabling more consistent regulatory decision-making.

Beyond supporting the tariff review undertaken during the assignment, the model constitutes a long-term institutional asset for both the regulator and the utility. It can be updated periodically to reflect changes in demand, costs, investments, electricity purchases, and customer characteristics, thereby creating a permanent analytical capability within the regulatory framework. This improves predictability for utilities, consumers, investors, and policymakers while increasing confidence in tariff-setting outcomes.

The case-study country experience highlights that regulatory strengthening is not only about revising tariffs but also about equipping stakeholders with tools that support informed and independent decision-making. By integrating financial, technical and commercial information into a single analytical framework, the model enables a more comprehensive assessment of utility performance and provides greater visibility on the drivers of costs and revenue requirements. This capability is particularly important in contexts where sector data is fragmented and investment needs are growing.

More broadly, the TA demonstrates that sustainable regulatory reform requires the institutionalisation of analytical tools that can continue to support regulatory processes long after the technical assistance has been concluded. In this regard, the CoS model represents not only a tariff-setting instrument but also a key building block for strengthening regulatory governance, transparency, and long-term sector sustainability in the case-study country.

4.2. Cost-Reflective Tariffs Remain Central to Utility Financial Viability

A key finding of the TA is the persistent gap between existing tariffs and the actual cost of supplying and distributing electricity. Based on the assumptions and data used in the CoSS for FY 2026/27, the model estimated an annual revenue requirement of approximately local currency units 2.15 billion, compared with revenue recovery under existing tariffs of approximately local currency units 1.58 billion. On this basis, existing tariffs would recover approximately 74% of the modelled revenue requirement, with an indicative average tariff adjustment of 35.6% required to achieve full cost reflectivity. These figures are analytical results for the stated period and should not be interpreted as an approved tariff decision.

This finding reflects a challenge common across many African electricity sectors. Utilities are increasingly required to invest in network expansion, system modernization and renewable energy integration, while simultaneously confronting rising electricity procurement costs, ageing infrastructure and affordability concerns. Under these conditions, tariffs that do not adequately

recover efficient costs can undermine the utility's ability to maintain assets, improve service quality and finance future investments.

The case-study country experience confirms that tariff reform should be viewed as an instrument for sector sustainability rather than as an isolated pricing exercise. Financially sustainable utilities are better positioned to attract financing, maintain infrastructure and contribute to broader national development objectives. At the same time, the TA demonstrates that movement towards cost-reflective tariffs must take account of affordability constraints and political realities. The recommended phased trajectory towards cost reflectivity illustrates how regulators can balance these competing objectives by combining gradual tariff adjustments with complementary support measures, including targeted subsidies, efficiency improvements and regulatory recovery mechanisms.

4.3. Improving Tariff Structures is as important as Adjusting Tariff Levels

The TA also demonstrated that tariff reform is not solely about increasing revenues. Equally important is ensuring that tariff structures are aligned with the underlying drivers of utility costs.

The CoS analysis revealed a mismatch between the current revenue structure and the actual distribution of costs. Existing tariffs rely heavily on volumetric energy charges, while a significant proportion of utility costs are associated with network investments, asset depreciation and fixed customer-related activities. This creates exposure to volumetric risk, whereby reductions in electricity sales may cause revenue to decline faster than costs, generating financial stress even when average tariffs appear adequate.

International benchmarking undertaken as part of the tariff guidelines further highlighted that Lesotho's tariff structure differs from those implemented in many comparable jurisdictions. Several peer countries employ a combination of fixed charges, demand charges and energy charges, while domestic tariffs in Lesotho remain solely energy-based. Similarly, many peer countries make use of block tariffs or differentiated charging structures to improve cost reflectivity and encourage efficient consumption behaviour.

The broader lesson is that regulators should pay attention not only to revenue adequacy but also to tariff design. Well-designed tariffs improve economic efficiency, provide more accurate price signals to consumers, support demand-side management objectives and reduce financial risks for utilities. This becomes increasingly important in the context of growing distributed renewable generation and improvements in energy efficiency across electricity systems.

4.4. Data Quality Is a Critical Constraint to Regulatory Development

A recurring theme throughout the TA is the importance of data quality. The development of the CoSS required significant efforts to collect, validate and reconcile information relating to assets, electricity purchases, customer consumption, operational costs and financial performance. Similarly, the review of utility performance indicators identified important gaps in the availability, consistency and reliability of data used for regulatory purposes.

The KPI audit found that although the regulator had established an extensive performance monitoring framework, several indicators lacked complete historical information, while others could not be measured or were not consistently over time.

These findings suggest that strengthening regulatory frameworks should include a strong focus on information management and regulatory reporting. Regulatory tools are only as effective as the data that underpins them. Strengthening reporting, validation and auditing protocols can significantly enhance the ability of regulators to monitor utility performance and make informed decisions. The Lesotho case therefore highlights that data governance should be considered a core component of regulatory capacity development rather than a purely technical administrative task.

4.5. Linking Economic Regulation and Quality of Service

Another important lesson emerging from the TA is the need to strengthen the relationship between tariff regulation and quality-of-service regulation. Historically, these two regulatory functions have often been treated separately: tariff reviews focus on financial sustainability, while quality frameworks focus on operational performance and customer service. The TA demonstrates that these objectives are closely interconnected.

The review of the regulator's quality-of-service framework found that the regulator had already developed a broad KPI framework covering financial, technical, customer service, safety and sustainability dimensions. However, the TA identified opportunities to strengthen KPI definitions and calculations, improve consistency in reporting methodologies, and establish more robust benchmarking practices and performance targets.

The experience suggests that regulators can improve sector outcomes by integrating quality indicators more directly into economic regulation. Consumers are generally more willing to accept tariff adjustments when improvements in service quality are visible and measurable. Likewise, utilities are more likely to respond effectively when clear performance expectations and accountability mechanisms are established. A regulatory framework that combines cost recovery objectives with quality-of-service incentives therefore offers a more balanced and sustainable approach to sector regulation.

4.6. Capacity Building as a Long-Term Regulatory Investment

Perhaps the most important lesson from the Lesotho case is that regulatory reform is ultimately an institutional challenge rather than simply a technical exercise. Deliverables such as Cost-of-Service models, tariff guidelines and KPI frameworks provide valuable tools, but their long-term impact depends on the ability of regulatory institutions and utilities to understand, maintain and apply them over time.

The TA therefore placed significant emphasis on stakeholder engagement, model walk-throughs, training activities and knowledge transfer. This approach recognised that regulatory capacity cannot be developed solely through the delivery of reports. Sustainable reform requires regulators and utilities to develop the analytical skills necessary to interpret results, challenge assumptions, evaluate alternative scenarios and adapt methodologies as sector conditions evolve.

The Lesotho experience demonstrates that regulatory assistance programmes yield the greatest value when they combine analytical outputs with institutional strengthening. The development of local expertise enhances regulatory independence, improves decision-making quality and ensures that reforms remain effective after external technical assistance has concluded. For African electricity sectors facing rapid technological, financial and institutional change, building regulatory capacity should therefore be regarded as a strategic investment comparable in importance to physical infrastructure development itself.

5. International Best Practices

The benchmarking exercises conducted under the Lesotho AESTAP programme highlights a number of international practices that are increasingly considered essential to modern electricity regulation. Drawing on experiences from African countries as well as mature regulatory jurisdictions in Europe, the analysis demonstrates that effective electricity regulation increasingly relies on transparent tariff methodologies, tariff designs adapted to country-specific circumstances, and performance-based regulatory frameworks. Together, these elements help ensure financial sustainability, promote efficient resource allocation, and improve service quality outcomes for consumers.

5.1. Revenue Requirement Determination: International Regulatory Approaches

International experience shows that there is no single approach for determining utility revenue requirements. Regulatory frameworks range from traditional **Rate of Return** and **Cost-Plus** methodologies, which allow utilities to recover efficient operating costs, depreciation, taxes and a regulated return on assets, to more incentive-based approaches such as **Revenue Cap** and **Price Cap** regulation. While cost-based models remain prevalent in many emerging electricity markets due to their simplicity and ability to support financial viability, several mature regulatory jurisdictions have progressively adopted mechanisms that place greater emphasis on efficiency and performance incentives.

In recent decades, a growing number of regulators have moved towards **hybrid regulatory models** that combine elements of cost-based and incentive-based regulation. These frameworks seek to balance financial sustainability with incentives for efficiency, service quality improvements and long-term investment planning. Under such approaches, revenue requirements continue to be grounded in fundamental components such as operating expenditures, depreciation, asset values and cost of capital, while incorporating mechanisms that encourage utilities to improve performance and contain costs.

International practice also demonstrates that the choice of methodology should reflect the specific context of each country, including market maturity, data availability, institutional capacity and policy objectives. Regardless of the regulatory model adopted, successful frameworks are typically characterised by transparent revenue determination processes, clearly defined regulatory asset bases, and methodologies that provide investors, utilities and consumers with predictable and credible signals for long-term sector development.

5.2. Modern Tariff Structures and Cost Signals

A second lesson emerging from international experience concerns tariff design. Most benchmarked countries apply multi-component tariff structures combining fixed charges, energy charges and, for larger customers, demand charges. These structures better reflect the actual drivers of utility costs and reduce dependence on volumetric energy sales as the primary source of revenue.

For residential customers, many jurisdictions use inclining block tariffs and targeted lifeline mechanisms to balance affordability objectives with economic efficiency. The benchmarking exercise found that several countries, including South Africa, Senegal, Burkina Faso, Ghana, Benin and Togo, employ block tariff structures for domestic consumers and, in some cases, differentiate tariff arrangements according to customer characteristics or metering technologies. For commercial and

industrial customers, time-of-use (TOU) tariffs and demand charges are commonly used to signal the costs associated with peak demand and network utilisation.

International experience suggests that properly designed tariff structures do more than recover costs. They encourage efficient consumption behaviour, improve demand management, support network planning, and provide utilities with a more stable revenue base.

5.3. Performance-Based Regulation and Quality of Service Monitoring

A growing trend in global electricity regulation is the integration of quality-of-service objectives into regulatory decision-making. Regulators increasingly monitor a combination of technical, financial, customer service and operational performance indicators to ensure that utilities not only recover costs but also deliver acceptable service outcomes.

The international benchmarking carried out under the TA reviewed practices in countries such as South Africa, Great Britain, Sweden, Uganda and Zambia. These jurisdictions make extensive use of performance indicators covering reliability, customer service, losses, financial sustainability and network development. In several cases, performance outcomes are linked to incentive mechanisms, encouraging utilities to improve efficiency and service quality while increasing accountability to customers and regulators.

An important lesson from these experiences is that KPI frameworks require clear definitions, standardised methodologies and reliable reporting processes. Consistency in indicator calculation and reporting is essential to ensure comparability over time and to support evidence-based regulatory decisions.

5.4. Strengthening Data Governance and Regulatory Capacity

International experience consistently shows that effective regulation depends on reliable information and strong institutional capacity. Regulatory tools such as tariff models and KPI frameworks can only function effectively when supported by robust data collection, reporting and verification practices. Utilities in mature regulatory environments are typically subject to standardised reporting requirements covering technical, commercial and financial performance, allowing regulators to undertake rigorous assessments and long-term planning.

The broader lesson for African electricity sectors is that regulatory reform should be approached as an institutional development process rather than a purely technical exercise. Investments in analytical tools, reporting systems, data governance arrangements and regulatory capacity are critical to ensuring that tariff reforms and performance monitoring frameworks remain effective over time. The experience from global markets suggests that these institutional foundations are essential for achieving financially sustainable utilities, improved service quality and stronger regulatory governance.

6. Policy and Regulatory Design Options

The experience from Lesotho highlights that effective electricity sector regulation requires a combination of sound tariff methodologies, transparent regulatory processes, and robust performance monitoring mechanisms. While regulatory frameworks must be tailored to national circumstances, a number of practical design options emerge from the TA that can guide policymakers seeking to strengthen utility sustainability, improve service quality, and enhance regulatory effectiveness.

6.1. Adopt a Transparent Revenue Requirement Framework

A first policy priority is the establishment of a transparent framework for determining utility revenue requirements. International practice demonstrates that different approaches can be adopted, ranging from traditional rate-of-return regulation to more advanced incentive-based mechanisms. The most appropriate choice depends on the maturity of the sector, the availability of reliable data, and institutional capacity. Regardless of the specific methodology selected, regulators should ensure that tariff determinations are based on clearly defined components, including efficient operating expenditures, depreciation, losses, capital investment requirements, and an appropriate return on assets. This improves transparency, facilitates stakeholder engagement, and increases confidence in regulatory decisions. The Cost of Service model developed under the TA provides an example of how these principles can be operationalised through a structured analytical framework capable of supporting future tariff reviews.

A key lesson for policymakers is that tariff reviews should not be conducted solely as a response to immediate financial pressures. Instead, they should be embedded within a longer-term regulatory framework that provides predictable signals regarding cost recovery, investment planning, and service quality expectations. Multi-year regulatory approaches can help balance utility sustainability with affordability considerations while reducing regulatory uncertainty.

6.2. Design Tariff Structures Aligned with Cost Drivers and Social Objectives

The Lesotho analysis showed that the structure of tariffs can be as important as tariff levels themselves. International benchmarking reveals that many jurisdictions employ tariff structures incorporating combinations of fixed charges, energy charges, demand charges, time-of-use pricing, and block tariffs depending on customer type and policy objectives. These structures improve cost reflectivity by aligning revenue recovery with the underlying drivers of costs while providing consumers with clearer economic signals.

For policymakers, tariff design should therefore pursue multiple objectives simultaneously: financial sustainability, economic efficiency, affordability and simplicity. Social protection mechanisms should be transparent and targeted rather than relying exclusively on broad cross-subsidies embedded within tariff structures. Where significant tariff adjustments are required, phased implementation plans may help reduce customer impacts while providing utilities with a credible pathway towards cost recovery. The phased trajectory proposed for Lesotho illustrates how regulators can smooth the transition towards cost-reflective tariffs while maintaining stakeholder acceptability.

6.3. Integrate Quality of Service into Economic Regulation

The integration of quality-of-service (QoS) considerations into tariff regulation is a sound and relevant regulatory practice. International experience increasingly favours regulatory frameworks that balance cost recovery with performance outcomes. Utilities should not only recover efficient costs but also be accountable for delivering reliable and responsive services to consumers.

The KPI review conducted under the TA demonstrated the importance of establishing a coherent performance monitoring framework covering financial sustainability, reliability, customer service, efficiency, safety and access objectives. Indicators such as SAIDI, SAIFI, system losses, collection rates, electrification targets and customer service standards provide regulators with valuable tools to assess utility performance and identify areas for improvement. Clear definitions, standardised calculation methodologies, and consistent reporting requirements are essential to ensure that performance indicators are credible and comparable over time.

6.4. Strengthen Regulatory Reporting and Data Governance

A recurring challenge identified throughout the TA was the availability and quality of data. Effective regulation depends on reliable information regarding utility assets, operating costs, electricity sales, losses, investment programmes and service quality outcomes. Without robust data, regulators face difficulties in assessing tariff applications, monitoring performance and making evidence-based decisions.

Policymakers should therefore prioritise the development of regulatory reporting frameworks that define the minimum information requirements for tariff reviews and performance monitoring. Standardised reporting templates, data verification procedures, and clear responsibilities for data collection and validation can significantly improve regulatory effectiveness.

6.5. Invest in Regulatory Capacity and Institutional Development

Finally, the Lesotho experience demonstrates that regulatory reform is fundamentally an institutional process. Analytical models, tariff methodologies, and KPI frameworks provide important tools, but their long-term effectiveness depends on the capacity of regulators and utilities to apply them consistently. Technical assistance programmes can play an important role in supporting this transition, but sustainable outcomes require continued investment in regulatory expertise, knowledge transfer and institutional learning.

For policymakers, this implies that regulatory strengthening initiatives should combine technical outputs with capacity building and stakeholder engagement. Building internal capabilities within regulatory institutions enables regulators to maintain analytical tools, evaluate future tariff applications independently, and adapt regulatory frameworks as sector conditions evolve. In the longer term, strengthening regulatory capacity contributes to better governance, increased investor confidence, improved utility performance and more sustainable electricity sector development.

For Lesotho, the immediate priority is to translate the TA outputs into an agreed implementation pathway. This could include formalising CoS model and KPI framework; establishing a timetable for data submission, validation and periodic model updates; prioritising complementary regulatory instruments; and identifying targeted capacity-building needs. Continued engagement between the regulatory authority, the electricity utility and the relevant government and non-government

institutions can help sequence these actions, align future technical assistance with sector priorities and ensure that the tools developed under the TA are embedded in routine regulatory practice.

7. Key Lessons Learnt and Recommendations

The Lesotho experience demonstrates that strengthening electricity sector regulation is not simply a technical exercise but a long-term institutional process. The TA highlights the importance of combining robust analytical tools, transparent regulatory frameworks, quality-of-service monitoring and institutional capacity development to ensure financially sustainable and customer-oriented electricity sectors. While specific regulatory arrangements must be adapted to national circumstances, several broader lessons are applicable across African electricity markets.

7.1. Recommendations for governments

- Set a clear policy framework that balances affordability, financial sustainability, access expansion and energy-transition objectives.
- Recognise cost-reflective tariffs as a long-term policy goal, while using targeted social protection mechanisms to protect vulnerable consumers.
- Create enabling conditions for private sector participation and renewable energy development through predictable regulatory frameworks, transparent tariff principles and credible sector planning.
- Where tariffs are maintained below cost-reflective levels for affordability reasons, or during phased under-recovery periods, provide targeted and adequately funded subsidies to protect vulnerable consumers while avoiding persistent revenue shortfalls for the utility.

7.2. Recommendations for regulators

- Develop and maintain transparent revenue requirement methodologies and tools that can be applied consistently in future tariff reviews.
- Use tariff reviews to assess not only revenue adequacy but also tariff design, cost allocation, affordability impacts and incentives for efficient consumption.
- Integrate quality-of-service monitoring into economic regulation through clear KPI definitions, standardised calculation methodologies and regular reporting requirements.
- Strengthen data governance by defining minimum information requirements, validation procedures and audit protocols for tariff applications and performance reports.
- Adopt a multi-year tariff framework with periodic true-ups to provide a predictable pathway to cost recovery and allow timely adjustment for material changes in underlying costs.

7.3. Recommendations for utilities

- Improve the quality, completeness and traceability of data submitted to regulators.
- Strengthen asset management, outage reporting, customer-service monitoring and loss-accounting systems to support both tariff reviews and performance assessment.
- Treat operational efficiency, service quality and regulatory reporting not only as compliance requirements but also as essential conditions for investment readiness.

7.4. Recommendations for development partners

- Support regulatory capacity building through practical tools, hands-on training and long-term institutional strengthening rather than one-off studies only.

- Finance or support the modernisation of regulatory information systems, performance-monitoring frameworks and tariff-modelling capabilities.
- Promote peer learning across African regulators to share experience on tariff reform, quality-of-service regulation, targeted subsidies and integration of renewable energy.