

# The Strategy of Decentralization: The Electricity Act (2023) and the Future of Regional Development

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## Abstract

The enactment of the Electricity Act 2023 represents a transformative shift in Nigeria's electricity governance, transitioning from a centralized federal system to a decentralized, multi-tiered electricity market. This research examines the strategic implications of electricity sector decentralization on regional development in Nigeria, analyzing constitutional and legislative foundations, implementation progress, and developmental outcomes across states. Through qualitative analysis of policy documents, regulatory frameworks, and implementation data from pioneering states including Enugu, Ekiti, Ondo, Edo, Imo, and Oyo, the study reveals that decentralization has created unprecedented opportunities for state-driven innovation, private sector participation, and renewable energy integration. Key challenges include regulatory coordination complexities, infrastructural constraints, capacity gaps, and the risk of market fragmentation. Successful implementation requires robust intergovernmental coordination mechanisms, substantial capital investment in transmission infrastructure, comprehensive capacity building for state regulatory institutions, and harmonized frameworks balancing state autonomy with national grid stability.

**Keywords:** Electricity Act 2023, Decentralization, Regional Development, Subnational Electricity Markets, Regulatory Federalism, Energy Access.

## Introduction

The challenge of electricity supply has remained one of Nigeria's most persistent developmental constraints, affecting economic productivity, industrial growth, and quality of life across the nation. For over three decades, Nigeria's power sector has experienced chronic generation shortfalls, aging transmission infrastructure, frequent grid collapses, and operational inefficiencies that have collectively hindered national development. The electricity deficit imposes substantial economic costs, with power outages estimated to cost the economy approximately \$26 billion annually as businesses resort to expensive off-grid solutions (Olasunkanmi, 2025).

Against this backdrop, the passage of the Electricity Act 2023 on June 9, 2023, marks a watershed moment in Nigeria's electricity governance trajectory. The Act repealed the Electric Power Sector Reform Act 2005 and fundamentally restructured the institutional and regulatory architecture of the Nigerian Electricity Supply Industry (Dadzie & Daggash,

2026). It operationalized a constitutional amendment enacted in March 2023 that deleted the phrase "not covered by a national grid system" from Paragraph 14(b) of the Concurrent Legislative List in the 1999 Constitution, thereby granting states comprehensive authority to regulate electricity generation, transmission, and distribution within their jurisdictions (Banwo-Ighodalo, 2023). As of March 2026, six states, namely Enugu, Ekiti, Ondo, Imo, Oyo, and Edo, have successfully established State Electricity Regulatory Commissions and received regulatory authority transfers from the Nigerian Electricity Regulatory Commission (Aluko & Oyeboode, 2024b).

The decentralization strategy carries profound implications for regional development patterns, economic growth, and spatial equity in electricity access. States now possess unprecedented autonomy to design regulatory frameworks tailored to their specific energy endowments, industrial needs, and developmental priorities, creating opportunities for renewable energy deployment, mini-grid proliferation, and localized market designs (UNDP Nigeria, 2025). However, decentralization also introduces coordination challenges, potential regulatory fragmentation, and risks of exacerbating regional inequalities where states lack sufficient institutional capacity or financial resources (Daggash, 2024). This research examines these strategic dimensions and their implications for regional development across Nigeria.

## Research Questions

This study addresses the following research questions:

1. What are the constitutional and legislative foundations enabling electricity sector decentralization under the Electricity Act 2023, and how do these provisions restructure power sector governance in Nigeria?
2. How have states operationalized their regulatory autonomy under the Act, and what implementation models have emerged across pioneering states?
3. What developmental opportunities does electricity decentralization create for regional economic growth, industrialization, renewable energy integration, and electricity access expansion?
4. What institutional, infrastructural, financial, and regulatory challenges impede effective implementation of decentralized electricity markets?
5. How can regulatory coordination mechanisms balance state autonomy with national grid stability and ensure equitable regional development outcomes?

## Research Objectives

The primary objectives of this research are:

1. To analyze the constitutional amendments and legislative provisions of the Electricity Act 2023 that enable electricity sector decentralization in Nigeria.
2. To examine the implementation progress and regulatory frameworks established by states that have operationalized electricity market decentralization.

3. To assess the implications of electricity decentralization for regional development, including impacts on private investment attraction, renewable energy deployment, and electricity access expansion.
4. To identify key challenges and constraints affecting decentralized electricity market development, including regulatory coordination gaps, infrastructural limitations, and capacity constraints.
5. To propose evidence-based policy recommendations for optimizing the benefits of electricity decentralization while mitigating associated risks and ensuring equitable regional development.

## **Significance and Scope**

### **Significance of the Study**

This research holds significant theoretical and practical importance for energy governance and regional development scholarship. Theoretically, it contributes to the literature on electricity sector decentralization in federal systems, examining how regulatory federalism principles operate in developing economies and complementing existing research on electricity governance in India, Brazil, and other federal states. Practically, the research offers timely analysis for policymakers, regulators, investors, and development partners engaged in Nigeria's electricity sector transformation. Findings can inform policy design for states preparing to establish electricity markets, guide regulatory coordination frameworks, and shape private sector investment strategies within the evolving multi-tiered market structure. Given that electricity access and reliability fundamentally influence industrialization potential and quality of life, understanding how decentralization affects regional development trajectories can also inform broader spatial development and infrastructure equity policies.

### **Scope of the Study**

This research encompasses the constitutional, legislative, institutional, and developmental dimensions of electricity sector decentralization in Nigeria from 2023 to 2026. While the study addresses national-level frameworks, particular attention is devoted to early-adopter states including Enugu, Ekiti, Ondo, Edo, Imo, and Oyo, covering the period from the constitutional amendment in March 2023 through March 2026. The research focuses primarily on governance, regulatory, and developmental dimensions rather than technical engineering aspects of electricity systems.

### **Statement of the Problem**

Nigeria has grappled with a chronic electricity supply crisis for over three decades, characterized by inadequate generation capacity, dilapidated transmission infrastructure, frequent grid collapses, and operational inefficiencies that have severely constrained economic productivity, industrial growth, and quality of life across the nation. The electricity deficit imposes substantial economic costs, with power outages estimated to

cost the economy approximately \$26 billion annually as businesses resort to expensive off-grid solutions, while households and enterprises spend an additional \$22 billion annually on fuel for generators (Olasunkanmi, 2025). Despite various reform initiatives, including the Electric Power Sector Reform Act 2005, the centralized federal governance structure of the Nigerian Electricity Supply Industry has proven inadequate to address the scale and complexity of the nation's electricity challenges, leaving approximately 36 percent of the population without access to electricity and rural electrification rates stagnating at only 33 percent as of 2023 (Intel Point, 2025).

The passage of the Electricity Act 2023, preceded by the Fifth Alteration to the Constitution in March 2023, represents a paradigmatic shift in Nigeria's electricity governance framework, transitioning from a centralized federal system to a decentralized, multi-tiered electricity market that empowers states to regulate electricity generation, transmission, and distribution within their jurisdictions. This decentralization strategy, while theoretically promising, presents a complex array of strategic, institutional, and developmental challenges that remain insufficiently understood and inadequately addressed in existing literature and policy frameworks. As of March 2026, only six states—Enugu, Ekiti, Ondo, Imo, Oyo, and Edo—have successfully established State Electricity Regulatory Commissions and received regulatory authority transfers from the Nigerian Electricity Regulatory Commission, demonstrating significant variation in implementation progress and institutional capacity across Nigeria's federating units (Aluko & Oyeboode, 2024a).

The decentralization of electricity governance raises critical questions about its implications for regional development patterns, economic growth, and spatial equity in electricity access. While states now possess unprecedented autonomy to design regulatory frameworks tailored to their specific energy endowments, industrial needs, and developmental priorities, this autonomy also introduces coordination challenges, potential regulatory fragmentation, and risks of exacerbating regional inequalities where states lack sufficient institutional capacity or financial resources (Daggash, 2024). The dual regulatory regime established by the Act creates complex jurisdictional interfaces between federal and state authorities, particularly where intra-state electricity activities interface with the national grid or involve interstate electricity flows, requiring licensees to obtain approvals from both Nigerian Electricity Regulatory Commission (NERC) and State Electricity Regulatory Commissions, thereby creating potential bottlenecks and regulatory uncertainty that may deter private investment (Banwo-Ighodalo, 2023).

Furthermore, the implementation of decentralized electricity markets faces substantial constraints including transmission infrastructure limitations that restrict evacuation of state-level generation, capacity and resource gaps in state regulatory institutions, financial sustainability challenges in tariff design and revenue adequacy, and the overarching risk of regional fragmentation and inequality where institutionally strong states develop effective electricity markets while capacity-constrained states struggle to operationalize their constitutional authority. The Imo State experience illustrates how jurisdictional ambiguities, unclear investor-entry frameworks, and inadequate guidelines on licensing

procedures, infrastructure ownership, and transitional responsibilities can generate destructive conflicts among state governments, distribution companies, and prospective investors, creating regulatory uncertainty and delaying infrastructure development (Obasa et al., 2025).

Despite the transformative potential of the Electricity Act 2023 for Nigeria's electricity sector and regional development trajectories, there exists a significant gap in comprehensive analysis of the strategic implications of this decentralization initiative, the implementation models emerging across pioneer states, the developmental opportunities and challenges inherent in the new governance framework, and the policy interventions necessary to optimize benefits while mitigating associated risks. This research addresses this gap by systematically examining the constitutional and legislative foundations of electricity sector decentralization, assessing implementation progress across pioneer states, analyzing developmental implications for regional economic growth, renewable energy integration, and electricity access expansion, identifying institutional, infrastructural, financial, and regulatory challenges impeding effective implementation, and proposing evidence-based policy recommendations for ensuring equitable regional development outcomes in Nigeria's evolving multi-tiered electricity market structure.

## Literature Review

### Introduction

The global shift toward decentralized electricity governance has generated a substantial and growing body of scholarship examining how federal systems redistribute regulatory authority over energy infrastructure, and with what developmental consequences. Nigeria's Electricity Act 2023, which operationalized a constitutional amendment granting states plenary authority over electricity generation, transmission, and distribution within their territorial boundaries, represents a paradigmatic case of this trend in a developing federal economy. The Act has been characterized as Nigeria's most ambitious legislative effort to restructure the power sector since liberalisation, signaling a decisive shift toward decentralization, renewable integration, and subnational market creation (Olujobi et al., 2026). Yet the scholarly literature on this transformation remains nascent, fragmented across legal analysis, policy evaluation, and emerging empirical studies. This review synthesizes existing knowledge on electricity sector decentralization, situating Nigeria's experience within comparative federal scholarship, examining the constitutional and legislative foundations of the reform, assessing implementation progress and developmental opportunities, identifying persistent challenges, and delineating gaps that warrant further research.

### Conceptual Framework: Decentralization and Regulatory Federalism in Electricity Governance

The theoretical justification for electricity sector decentralization draws on foundational federalism scholarship positing that subnational governments, by virtue of proximity to

local conditions, possess superior knowledge of regional endowments, needs, and priorities, and can therefore design more responsive policies than centralized authorities (Hooghe & Marks, 2003; Oates, 1999). Applied to electricity, this logic suggests that states are better positioned to match generation technologies to local renewable resource endowments, tailor tariff structures to regional economic conditions, and integrate electrification planning with broader industrial and spatial development strategies. The concept of regulatory federalism, which describes the allocation of regulatory authority across multiple tiers of government in a shared policy domain, provides the analytical lens through which Nigeria's dual federal-state electricity regime can be understood (Adeyemi, 2024).

However, the literature also recognizes that decentralization is not a panacea. A growing body of research identifies coordination capacity as the critical variable determining whether formal decentralization translates into delivered outcomes. Akeredolu (2026) argues that subnational governments operating under identical federal frameworks achieve divergent renewable energy implementation outcomes depending on whether they possess a focal agency with delegated authority and institutional memory, procedural follow-through, and predictable coordination mechanisms. The study demonstrates that Niger State achieved high off-grid solar deployment despite low revenue, while Akwa Ibom recorded near-zero deployment despite fiscal advantage, anchoring the argument that coordination capacity—not merely fiscal resources—determines implementation success. This finding has profound implications for Nigeria's decentralized electricity market, suggesting that without deliberate institutional investment, decentralization risks reproducing spatial inequality by concentrating finance in jurisdictions already legible to external partners (Akeredolu, 2026).

The literature further distinguishes between decentralization of governance and the technical realities of interconnected electricity systems. As Babalola (2026) observed, "the Electricity Act decentralises aspects of governance. It does not decentralise the physics of electricity" (para. 6). This recognition of the inherent tension between administrative boundaries and the physical characteristics of networked electricity infrastructure frames much of the scholarly debate on coordination, harmonization, and the risk of fragmentation.

### **Constitutional and Legislative Foundations**

The constitutional amendment enacted in March 2023, which deleted the phrase "not covered by a national grid system" from Paragraph 14(b) of the Concurrent Legislative List, has been extensively analyzed as the legal foundation of Nigeria's electricity decentralization. Banwo-Ighodalo (2023) explains that prior to this amendment, the qualifying phrase effectively concentrated authority at the federal level, since most economically significant areas were grid-connected, constraining states from developing comprehensive electricity markets or attracting substantial private investment into state-level power projects. The amendment granted states plenary legislative and regulatory

authority over electricity generation, transmission, and distribution within their territorial boundaries, restoring state authority to pre-1999 levels and aligning Nigeria's framework with cooperative federalism principles (UUBO Law Firm, 2023).

The Electricity Act 2023, signed into law on June 9, 2023, operationalized this constitutional authority by repealing the Electric Power Sector Reform Act 2005 and establishing new institutional, regulatory, and market structures. Section 230 establishes procedures for states to assume regulatory authority by notifying the Nigerian Electricity Regulatory Commission (NERC) of their institutional readiness, triggering a transfer process within a timeline not exceeding six months (Abubakar & Agbafo, 2025). State regulatory authorities may issue licenses for generation, transmission, and distribution activities within state boundaries, including regulation of mini-grids, Independent Electricity Distribution Networks, and Independent Electricity Transmission Networks (Adu & Moroom Africa Legal Consults 2023). Tariff regulation authority allows states to establish electricity tariffs for intra-state transactions, providing crucial pricing tools to balance cost recovery with affordability and industrial competitiveness objectives (Senbore & Caleb, 2024). The Act further mandates renewable energy generation obligations and establishes supporting financial mechanisms including feed-in tariffs, tax incentives, and renewable purchase obligations (UNCTAD, 2026).

Legal scholars have identified structural deficiencies in the Act that may impede effective implementation. Olujobi et al. (2026) demonstrate that although the Act signals a significant shift toward decentralization and renewable integration, several structural deficiencies persist, including ambiguous regulatory mandates, an over-centralized tariff-setting framework, weak coordination between federal and state regulatory spheres, and imprecise terminologies that risk administrative uncertainty in areas such as mini-grids and embedded generation. These legal ambiguities create fertile ground for jurisdictional conflicts and regulatory arbitrage, as evidenced by early implementation experiences.

### **Comparative Federal Perspectives**

Nigeria's approach to electricity decentralization reflects broader patterns in federal systems, though with distinctive features that merit comparative analysis. India's constitutional framework allocates electricity as a concurrent subject, enabling both central and state legislation, though Indian states historically possessed greater operational control through state electricity boards (Armijo & Jha, 1997). Brazil's cooperative federalism model grants states significant autonomy in electricity regulation while maintaining federal coordination through national regulatory agencies, creating parallel structures to Nigeria's emerging framework (Armijo & Jha, 1997). The comparative literature emphasizes that while federal systems benefit from subnational flexibility tailored to regional conditions, they must also develop context-appropriate coordination mechanisms that accommodate the technical realities of interconnected electricity systems.

Kenya's experience with energy devolution offers particularly instructive lessons for Nigeria. Following constitutional changes in 2010 and the Energy Act 2019, Kenya

transferred responsibility for energy planning to county governments, yet electrification governance remains fragmented and complex, with national-level actors still primarily responsible for planning and implementation. Daggash (2024) documents that many political, economic, and legal obstacles—including limited capacity in subnational governments, where county energy departments are lumped together with other sectors leading to competition for resources—have hindered successful devolution in Kenya. Nigeria is similarly vulnerable to these challenges, suggesting that regional approaches to electricity regulation may allow states to pool resources and simplify the regulatory landscape for private-sector players (Daggash, 2024).

### **Implementation Progress and Emerging Models**

The scholarly and policy literature documents significant variation in implementation progress across Nigerian states. Enugu State has emerged as the leading example of rapid and comprehensive implementation, having enacted its State Electricity Law within three months of Governor Peter Mbah's assumption of office, establishing the Enugu State Electricity Regulatory Commission (EERC) in September 2023. The EERC commenced operations in April 2024 and became the first State Electricity Regulatory Commission to receive full regulatory authority transfer from NERC, with the transition complete by October 2024 (This Day Live, 2025). The Commission immediately began issuing interim distribution licenses, processing independent power generation applications, and resolving consumer complaints, licensing Mainpower Electricity Distribution Limited to handle intra-state power delivery (Guardian, 2025).

Beyond Enugu's pioneering role, additional states have established electricity regulatory structures and received regulatory authority transfers from NERC, including Ekiti, Ondo, Imo, Oyo, and Edo (NERC, 2024). As of 2026, over fourteen states have initiated the transfer of regulatory oversight, with some completing the transition (The Electricity Hub, 2026). This variation illustrates the flexibility that decentralization enables, allowing states to sequence implementation according to their specific circumstances, but it also exposes significant differences in institutional capacity, political commitment, and financial resources that substantially influence implementation speeds and early outcomes. Daggash (2024) observes that implementation has been slow due to states limited institutional and financial resources, putting the effort's ultimate chance of success at risk.

### **Developmental Opportunities: Investment, Renewable Energy, and Access**

The literature identifies several developmental opportunities arising from electricity decentralization. On investment, the opening of state-level electricity markets has created new channels for private capital by enabling states to directly compete based on their regulatory frameworks, investment incentives, and project facilitation capabilities. Nigeria's energy sector received \$6.7 billion in investment during 2024, reflecting increased confidence in the sector's transformation trajectory (Nairametrics, 2025). States can differentiate themselves through regulatory efficiency, transparent tariff methodologies,

and enforceable contractual frameworks that reduce investment risk perceptions, creating competitive dynamics that the previous centralized system did not generate.

Regarding renewable energy, decentralization enables states to tailor strategies to their specific resource endowments. States in riverine areas including Rivers, Benue, Osun, and Bayelsa can capitalize on hydropower potential, while northern states such as Yobe and Kano possess exceptional solar energy resources (Olasunkanmi, 2025). Adeyemi (2024) argues that decentralization could strengthen capacity building and technical competence at the state and local level, critical for promoting renewable energy integration in Nigeria's energy mix and meeting climate commitments. The Electricity Act establishes supporting mechanisms including mandatory renewable purchase obligations, feed-in tariffs, tax incentives, and affordable interest loans for renewable projects (Law Pavilion, 2024).

On electricity access, the literature emphasizes both the scale of the challenge and the potential of decentralized solutions. Approximately 67 percent of Nigeria's rural population lacks electricity access as of 2023, with rural electrification rates improving only marginally from 4 percent in 1990 to 33 percent in 2023 (Intel Point, 2025). Mini-grids powered by solar, small hydro, or biomass can provide electricity to remote communities, with state regulatory commissions now possessing authority to license and regulate their operations (Adu & Moroom Africa Legal Consults, 2023). However, Akeredolu (2026) cautions that coordination capacity is necessary for converting formal decentralization, donor interest, or regulatory openings into delivered projects, and that because coordination capacity is unevenly distributed and self-reinforcing, decentralization without institutional investment reproduces spatial inequality.

### Challenges and Constraints

The literature identifies several persistent challenges that threaten the success of decentralized electricity markets. Transmission infrastructure constraints represent perhaps the most fundamental physical limitation. Nigeria's transmission system can reliably transport only about 4,000 MW despite installed generation capacity ranging between 5,300 MW and 12,522 MW, with transmission losses estimated at 7.4 percent, significantly exceeding global benchmarks of 2 to 6 percent (Onah & Ogbuju, 2025). For decentralized markets, these constraints create complex coordination challenges, as state-level generation projects require transmission access under federal control, and if transmission infrastructure cannot evacuate state-level generation, investment in new capacity risks being stranded.

Regulatory coordination and jurisdictional conflicts constitute the most extensively documented challenge in the emerging literature. The dual regulatory regime requires licensees to obtain approvals from both NERC and State Electricity Regulatory Commissions where intra-state activities interface with the national grid, creating potential bottlenecks and regulatory uncertainty (Aluko & Oyeboode, 2024a). The Imo State experience illustrates how jurisdictional ambiguities, unclear investor-entry frameworks, and inadequate guidelines on licensing procedures, infrastructure ownership, and

transitional responsibilities can generate destructive conflicts among state governments, distribution companies, and prospective investors (Obasa et al., 2025). The Enugu tariff dispute of 2025, in which the EERC reduced Band A tariffs from N209/kWh to N160/kWh, met resistance from distribution companies and required intervention by the Nigerian Independent System Operator, further demonstrates the friction arising from overlapping regulatory mandates (The Electricity Hub, 2026).

Capacity and resource constraints in state institutions limit the ability of many states to implement decentralized markets effectively. Establishing credible regulatory commissions requires personnel with specialized knowledge in electrical engineering, economics, law, and finance, skills that remain in limited supply across Nigeria's labor market (NERC, 2024). States with weak fiscal positions may lack resources to commission electricity master plans, engage advisors, and fund ongoing operations, resulting in regulatory institutions that exist formally but lack operational capacity (Daggash, 2024). The cumulative risk is a two-tier system in which institutionally strong states develop effective markets that attract investment while capacity-constrained states struggle, perpetuating regional development disparities.

Financial sustainability and tariff design challenges further complicate implementation. State regulatory commissions must balance cost recovery for efficient operators, consumer affordability, industrial competitiveness, and adequate returns to attract private investment. Political pressures to keep tariffs low risk replicating at the state level Nigeria's history of weak cost recovery, undermining sector financial sustainability and deterring private investment (1st Attorneys, 2025). Coordinated tariff methodologies are necessary across states to prevent regulatory arbitrage, while metering infrastructure must be expanded to reduce commercial losses.

The risk of regional fragmentation and inequality is perhaps the most consequential challenge identified in the literature. Nigeria already experiences substantial regional inequalities in electricity access, with rural areas and northern regions significantly underserved. If decentralization accelerates development in already advantaged states while leaving capacity-constrained states further behind, regional inequality could widen, creating political tensions and undermining national development objectives. Fragmentation risks also arise from potential incompatibilities in technical standards, regulatory frameworks, and operational practices across states, which could complicate interstate electricity trade and compromise national grid operations.

### **Coordination Mechanisms and Emerging Governance Architecture**

The literature documents the emergence of coordination mechanisms designed to manage the complex interfaces between federal and state regulatory authorities. Section 230(9) of the Electricity Act provides for the establishment of an intergovernmental coordinating body comprising NERC and the State Electricity Regulatory Commissions, mandated to promote regulatory alignment and support the development of principles, standards, and rules for the electricity market (The Electricity Hub, 2026). On March 25, 2026, NERC

announced the inauguration of the Forum of Nigerian Electricity Regulators (FONER) pursuant to this provision, expected to serve as a platform for dialogue and coordination on market operations, capacity building, consumer protection, and tariff regulation, and to provide an early-stage mechanism for resolving regulatory disputes.

However, scholars and policymakers acknowledge that translating statutory coordination frameworks into operational procedures remains an urgent implementation priority. The National Integrated Electricity Policy, approved by the Federal Executive Council in May 2025, provides a coordination framework, but operationalizing its principles requires detailed implementation guidelines that clearly delineate jurisdictional boundaries, establish protocols for joint decision-making, and address licensing coordination, tariff methodology harmonization, and transmission access procedures (UNDP Nigeria, 2025). As Abaribe (2026) observed, “the success of decentralisation should not be measured merely by the number of States that established electricity markets or obtained transfer orders. Rather, success should be measured by whether Nigeria achieves a coherent, efficient, bankable and integrated electricity market where federal and State institutions perform complementary rather than competing roles” (para. 12).

### **Research Gaps and Directions for Future Scholarship**

Despite the growing body of literature on Nigeria’s electricity decentralization, several significant gaps remain. First, the temporal scope of existing studies is limited, with most analyses covering only the initial years of implementation. Longer-term assessment of developmental outcomes—including effects on private investment, renewable energy deployment, electricity access, and regional economic growth—remains largely absent. Second, comparative empirical analysis across states is underdeveloped. While case studies of pioneer states such as Enugu provide valuable insights into implementation dynamics, systematic comparison of why some states achieve more rapid and effective implementation than others, controlling for fiscal capacity and institutional variables, is lacking. Akeredolu’s (2026) work on coordination capacity represents an important exception but requires extension.

Third, the literature lacks rigorous quantitative assessment of the developmental impacts of decentralization. Data availability constraints, particularly regarding state-level market performance metrics, limit the ability to measure changes in investment flows, access rates, service quality, and economic productivity attributable to the reform. Fourth, the interface between electricity decentralization and broader spatial development and infrastructure equity policies remains underexplored. How decentralized electricity governance interacts with industrial policy, urban-rural dynamics, and regional development planning requires further investigation. Finally, the literature would benefit from deeper comparative engagement with federal systems beyond India, Brazil, and Kenya, including experiences in other developing economies that have undertaken similar reforms, to identify transferable lessons and contextual contingencies.

The literature on Nigeria's Electricity Act 2023 and the decentralization of electricity governance documents a transformative but contested reform trajectory. The constitutional amendment and the Act have created unprecedented opportunities for state-driven innovation, private sector participation, and renewable energy integration, with early-adopter states demonstrating that decentralization can succeed where political commitment, institutional capacity, and regulatory competence converge. However, the scholarship also identifies persistent challenges—transmission infrastructure constraints, regulatory coordination complexities, capacity and resource gaps, and the risk of widening regional inequalities—that threaten to undermine the reform's developmental potential. The emerging consensus is that success will depend on robust coordination mechanisms, accelerated transmission investment, systematic capacity building, and equitable resource allocation frameworks that ensure no region is left behind. Future research must move beyond descriptive accounts of legal provisions and early implementation toward systematic, comparative, and longer-term analysis of developmental outcomes, providing the evidence base necessary to guide policy refinement and institutional strengthening in Nigeria's evolving multi-tiered electricity market.

### **Research Methodology**

This research employs a qualitative design utilizing documentary analysis and policy evaluation methodologies. The qualitative approach is appropriate given the study's focus on complex institutional transformations, policy implementation processes, and developmental implications that require interpretive analysis rather than statistical measurement.

### **Data Sources**

- i. **Legislative and Constitutional Documents:** The research analyzes primary legal texts including the Electricity Act 2023, the Constitution of the Federal Republic of Nigeria (as amended, 2023), and state electricity laws enacted by Enugu, Ekiti, Ondo, Edo, Imo, and Oyo states. These documents provide the constitutional and legislative foundations for the analytical framework.
- ii. **Regulatory Reports and Policy Documents:** Official publications from the Nigerian Electricity Regulatory Commission, state electricity regulatory commissions, the Rural Electrification Agency, and the Federal Ministry of Power provide data on implementation progress and sector performance indicators. Quarterly reports from NERC documenting electricity generation, transmission, and distribution statistics constitute key quantitative indicators.
- iii. **Academic Literature and Policy Analysis:** Peer-reviewed articles, policy briefs, working papers, and analytical reports from research institutions and development organizations provide theoretical frameworks, comparative perspectives, and critical analysis of decentralization implementation.

- iv. Media and Industry Reports: Verified reporting from reputable media sources and industry publications documents implementation developments, stakeholder perspectives, and emerging challenges in real-time contexts.

### **Analytical Framework**

The research employs thematic content analysis to identify patterns, themes, and relationships within documentary sources. This encompasses constitutional and legislative analysis examining how constitutional amendments redistribute authority and define jurisdictional boundaries, as well as implementation assessment evaluating institutional structures, regulatory frameworks, and licensing procedures adopted by states. The study further conducts developmental impact analysis assessing effects on private investment, renewable energy deployment, electricity access, and economic growth, alongside systematic challenge identification across institutional, infrastructural, financial, and regulatory dimensions. Where relevant, comparative insights from other federal systems are drawn upon to contextualize Nigeria's approach.

### **Limitations**

The study's reliance on secondary documentary sources precludes direct observation of implementation processes or primary stakeholder interviews, potentially limiting depth of insight into implementation dynamics. The limited temporal scope, covering only the initial three years of implementation, may not capture longer-term trends. Data availability constraints, particularly regarding state-level market performance metrics, limit quantitative assessment of developmental impacts, and the early-stage nature of implementation means conclusions remain preliminary pending future validation.

## **Constitutional and Legislative Foundations of Decentralization**

### **The Constitutional Amendment: Restructuring Federal-State Relations**

The legal foundation for electricity sector decentralization emerged from the Fifth Alteration to the Constitution of the Federal Republic of Nigeria, signed into law on March 17, 2023. The amendment modified Paragraph 14(b) of the Concurrent Legislative List in Part II of the Second Schedule to the 1999 Constitution by deleting the phrase "not covered by a national grid system," which had previously limited state authority to electricity generation and distribution in areas outside national grid coverage (Banwo-Ighodalo, 2023). Prior to this amendment, the restriction effectively concentrated authority at the federal level, since most economically significant areas were grid-connected, constraining states from developing comprehensive electricity markets or attracting substantial private investment into state-level power projects (Okoro et al., 2023).

The amendment granted states plenary legislative and regulatory authority over electricity generation, transmission, and distribution within their territorial boundaries, whether grid-connected or off-grid, restoring state authority to pre-1999 levels and aligning Nigeria's framework with cooperative federalism principles that recognize legitimate state interests

in infrastructure development (UUBO Law Firm, 2023). This shift is constitutionally significant not merely as an administrative restructuring but as a reallocation of economic governance that enables states to function as primary regulators of a critical infrastructure sector for the first time since the return to democratic governance.

### **The Electricity Act 2023: Operationalizing Constitutional Authority**

Signed into law by President Bola Ahmed Tinubu on June 9, 2023, the Electricity Act 2023 repealed the Electric Power Sector Reform Act 2005 and established new institutional, regulatory, and market structures aligned with the decentralized governance model (Abubakar & Agbafo, 2025). The Act's transformative provisions collectively enable state-level electricity market development across several key dimensions.

- i. **State Regulatory Authority:** Section 230 establishes procedures for states to assume regulatory authority by notifying NERC of their institutional readiness, triggering a transfer process within a timeline not exceeding six months. This provision creates a structured pathway for states to transition from recipients of federal regulatory oversight to independent regulators capable of licensing, tariff-setting, and market management within their jurisdictions.
- ii. **Licensing Powers:** State regulatory authorities may issue licenses for electricity generation, transmission, and distribution activities within state boundaries, including regulation of mini-grids, Independent Electricity Distribution Networks, and Independent Electricity Transmission Networks (Adu & Moroom Africa Legal Consults, 2023). This licensing authority enables states to control market entry, set technical standards, and structure their electricity markets according to local conditions and priorities rather than a uniform national template.
- iii. **Tariff Regulation:** State commissions may establish electricity tariffs for intra-state transactions, providing states with crucial pricing tools to balance cost recovery imperatives with affordability considerations and industrial competitiveness objectives (Senbore & Caleb, 2024). Tariff authority is particularly significant as it allows states to design pricing frameworks that reflect local economic conditions, cross-subsidize underserved populations, and create competitive advantages for industrial consumers.
- iv. **Renewable Energy Promotion:** The Act mandates electricity generation licensees to meet renewable energy generation obligations as prescribed by regulators and establishes supporting financial mechanisms including feed-in tariffs, tax incentives, and renewable purchase obligations (UNCTAD, 2026). These instruments provide states with policy levers to accelerate clean energy transitions tailored to their specific resource endowments and climate vulnerabilities.
- v. **Rural Electrification Fund:** The Act dedicates the Rural Electrification Fund exclusively to promoting renewable electricity projects in rural and underserved areas, managed by the Rural Electrification Agency (Law Pavilion, 2024). This fund structure enables coordinated federal-state collaboration on expanding electricity

access to populations previously excluded from both the national grid and earlier electrification programs.

### **Jurisdictional Boundaries and Dual Regulatory Regime**

The constitutional and legislative framework creates a complex jurisdictional architecture characterized by dual regulatory authority in certain contexts. Federal authority, exercised through NERC, retains exclusive jurisdiction over interstate electricity transactions, international electricity trade, and activities involving the national grid as an interstate transmission asset (Banwo-Ighodalo, 2023). State regulatory commissions exercise primary jurisdiction over intra-state generation, transmission, and distribution activities that operate entirely within state boundaries.

However, the framework establishes concurrent federal-state jurisdiction where intra-state electricity activities interface with the national grid or involve interstate electricity flows (Aluko & Oyebode, 2024a). In these circumstances, licensees must obtain approvals from both NERC and the relevant State Electricity Regulatory Commission, creating dual regulatory requirements that demand effective coordination mechanisms to avoid conflicting mandates or regulatory inefficiencies. This jurisdictional complexity reflects inherent tensions between federalism principles and the technical realities of interconnected electricity systems; while constitutional federalism supports state autonomy in economic regulation, electricity's physical characteristics as a networked infrastructure service create interdependencies that transcend administrative boundaries. Implementation experiences have revealed ongoing challenges in operationalizing this dual authority without creating bottlenecks or regulatory uncertainty that deter private investment.

### **Comparative Constitutional Perspective**

Nigeria's approach reflects broader patterns in federal systems, though with distinctive features. India's constitutional framework similarly allocates electricity as a concurrent subject, enabling both central and state legislation, though Indian states historically possessed greater operational control through state electricity boards (Armijo & Jha, 1997). Brazil's cooperative federalism model grants states significant autonomy in electricity regulation while maintaining federal coordination through national regulatory agencies, creating parallel structures to Nigeria's emerging framework (Armijo & Jha, 1997). The Nigerian constitutional amendment represents a deliberate shift toward greater state autonomy, aligning with global trends recognizing that electricity sector governance benefits from subnational flexibility tailored to regional conditions, resource endowments, and development priorities. Nigeria must nonetheless develop context-appropriate coordination mechanisms that learn from these precedents while accommodating its distinct institutional landscape.

### **Implementation Progress Across Pioneer States**

#### **Enugu State: The First-Mover Advantage**

Enugu State has emerged as the leading example of rapid and comprehensive implementation of electricity market decentralization under the Electricity Act 2023. Within three months of assuming office, Governor Peter Mbah's administration drafted and enacted the Enugu State Electricity Law, signed on September 1, 2023, establishing the Enugu State Electricity Regulatory Commission (Guardian, 2025). This swift legislative action demonstrated political will and administrative capacity to operationalize constitutional authority expeditiously, establishing a legislative foundation before many states had even begun internal consultations.

The EERC commenced operations in April 2024, becoming the first State Electricity Regulatory Commission to receive full regulatory authority transfer from NERC, with the transition complete by October 2024 (This Day Live, 2025). The Commission immediately began issuing interim distribution licenses, processing independent power generation applications, and resolving consumer complaints. The state licensed Mainpower Electricity Distribution Limited to handle intra-state power delivery under state regulatory oversight, enabling continuity of existing distribution infrastructure during the transition (Guardian, 2025). Enugu's approach, combining gubernatorial leadership, swift legislative action, and deliberate pro-investment policies, has positioned it as the reference model for other states.

#### **Multi-State Implementation: Enugu, Ekiti, Ondo, Imo, Oyo, and Edo**

Beyond Enugu's pioneering role, six additional states have established electricity regulatory structures and received regulatory authority transfers from NERC. Ekiti, Ondo, Imo, Oyo, and Edo have each enacted state electricity laws, constituted regulatory commissions or bureaus, and initiated the regulatory transition process (NERC, 2024). These states represent diverse geographic regions and economic profiles, suggesting that electricity decentralization holds broad appeal across Nigeria's heterogeneous state landscape. Each has adopted implementation approaches reflecting local priorities and institutional capacities; some have moved quickly to license new generation projects and distribution networks, while others have focused initially on regulatory framework development and stakeholder engagement. This variation illustrates the flexibility that decentralization enables, allowing states to sequence implementation according to their specific circumstances. It also exposes significant differences in institutional capacity, political commitment, and financial resources that substantially influence implementation speeds and early outcomes.

#### **Coordination Mechanisms Between Federal and State Regulators**

The implementation of decentralized electricity markets requires effective coordination between NERC and State Electricity Regulatory Commissions to manage jurisdictional interfaces, harmonize technical standards, and resolve regulatory disputes. NERC has

initiated coordination mechanisms including regular meetings with state regulators to discuss implementation milestones, opportunities, and challenges (NERC, 2024). These forums facilitate experience sharing, identify coordination gaps, and develop collaborative approaches to common regulatory challenges.

However, coordination remains an evolving challenge. The Imo State experience illustrates how jurisdictional ambiguities, unclear investor-entry frameworks, and inadequate guidelines on licensing procedures, infrastructure ownership, and transitional responsibilities can generate destructive conflicts among the state government, distribution companies, and prospective investors (Obasa et al., 2025). These conflicts created regulatory uncertainty, delayed infrastructure development, and potentially deterred subsequent investment. Effective coordination requires institutional mechanisms for joint decision-making on matters affecting both federal and state jurisdictions, harmonized licensing procedures, standardized technical requirements, coordinated tariff methodologies, and binding dispute resolution procedures. The National Integrated Electricity Policy, approved by the Federal Executive Council in May 2025, provides a coordination framework, but translating its principles into operational procedures remains an urgent implementation priority (UNDP Nigeria, 2025).

### **Developmental Opportunities from Electricity Decentralization**

#### **Attracting Private Investment and Capital Flows**

Electricity sector decentralization under the Electricity Act 2023 has created new channels for private investment into Nigeria's power sector by enabling states to directly compete for capital based on their regulatory frameworks, investment incentives, and project facilitation capabilities. The opening of state-level electricity markets to foreign direct investment has expanded the investment opportunity set, with states establishing independent regulatory environments designed to attract private capital (Lloyd's Bank Trade, 2026). Nigeria's energy sector received \$6.7 billion in investment during 2024, reflecting increased confidence in the sector's transformation trajectory (Nairametrics, 2025), while private investment in energy with private participation reached \$116 million in 2023 according to World Bank data (Trading Economics, 2025).

States can differentiate themselves through regulatory efficiency, transparent tariff methodologies, enforceable contractual frameworks, and political stability that reduce investment risk perceptions. The competitive dynamic among states creates incentives for regulatory innovation that the previous centralized system did not generate. However, investment attraction ultimately depends on states' capacities to provide credible regulatory frameworks and manage electricity market operations competently; states lacking these capabilities may struggle to attract investment despite possessing regulatory authority, potentially widening development gaps.

**Renewable Energy Integration and Climate Goals**

Decentralization enables states to tailor renewable energy strategies to their specific resource endowments and climate conditions, potentially accelerating Nigeria's clean energy transition. States in riverine areas including Rivers, Benue, Osun, and Bayelsa can capitalize on hydropower generation potential, while northern states such as Yobe and Kano possess exceptional solar energy resources (Olasunkanmi, 2025). This geographic matching of renewable resources to state-level policy enables more efficient renewable energy deployment than centralized planning might achieve, allowing each state to prioritize the technologies most economically and technically suited to its conditions.

The Electricity Act 2023 establishes multiple supporting mechanisms including mandatory renewable purchase obligations, feed-in tariffs guaranteeing fixed prices for renewable electricity fed into the grid, tax incentives for local renewable energy producers, and affordable interest loans for renewable projects (Law Pavilion, 2024). States can leverage these federal mechanisms while designing additional state-specific incentives. Mini-grids powered by solar, small hydro, or biomass can provide electricity access to remote communities, with state regulatory commissions now possessing authority to license and regulate their operations, reducing uncertainty for developers and accelerating rural electrification (Adu & Moroom Africa Legal Consults, 2023). The decentralized approach also enables experimentation with diverse renewable energy business models and financing mechanisms across different states, with successful innovations replicable by others.

**Expanding Electricity Access and Rural Electrification**

Nigeria's electricity access challenge remains severe, particularly in rural areas where approximately 67 percent of the rural population lacks electricity access as of 2023, with rural electrification rates improving only marginally from 4 percent in 1990 to 33 percent in 2023, reflecting the systemic challenges of extending centralized grid infrastructure to dispersed rural populations (Intel Point, 2025). National electricity access rates increased from 59 percent in 2023 to 64 percent in 2024, demonstrating gradual progress but highlighting the substantial access deficit that remains (The Electricity Hub, 2025).

Decentralization creates opportunities for accelerated access expansion by enabling states to prioritize electrification in their regulatory and planning frameworks with greater precision than federal authorities could achieve. States possess superior knowledge of their geographic, demographic, and economic conditions, enabling targeted investments integrated with agricultural modernization, small enterprise development, and social service delivery. State regulatory commissions can facilitate mini-grid licensing, establish appropriate tariff frameworks, and coordinate with the Rural Electrification Agency to deploy the Rural Electrification Fund strategically (Law Pavilion, 2024). However, rural electrification financing remains challenging due to low consumption densities and limited ability to pay, requiring coordinated subsidy allocation and deliberate federal-state cooperation to reach the most underserved communities.

### **Regional Economic Development and Industrialization**

Reliable, affordable electricity constitutes a foundational requirement for industrial development, yet Nigeria's electricity challenges have severely constrained industrialization. Businesses spend approximately \$22 billion annually on fuel for off-grid generators, representing substantial economic inefficiency and reduced competitiveness, while the inadequate electricity supply has deterred industrial investment, limited manufacturing expansion, and constrained economic diversification beyond oil and gas sectors (Olasunkanmi, 2025).

Electricity decentralization allows states to develop electricity supply strategies aligned with their industrial development objectives, prioritizing industrial clusters, special economic zones, and manufacturing hubs in electricity planning and infrastructure investment. States can establish differentiated tariff structures that support industrial competitiveness while maintaining cost recovery. Nigeria's power generation increased by 30 percent in 2024, reaching peak generation of 5,528 MW compared to 4,100 MW in 2023, driven partly by the 700 MW Zungeru hydroelectric dam (The Electricity Hub, 2025), with total electricity generation exceeding 40 terawatt hours in 2023, up from approximately 35 terawatt hours in 2022 (Statista, 2024). Decentralization positions states to direct these gains toward specific industrial development objectives, enabling integrated regional approaches that centralized systems cannot replicate.

### **Challenges and Constraints in Decentralized Electricity Markets**

#### **Transmission Infrastructure Constraints and Grid Stability**

Nigeria's transmission infrastructure represents a critical constraint on electricity sector performance. The transmission system can reliably transport only about 4,000 MW despite installed generation capacity ranging between 5,300 MW and 12,522 MW, creating a fundamental mismatch between generation potential and transmission. Transmission losses are estimated at 7.4 percent, significantly exceeding global benchmarks of 2 to 6 percent, due to long transmission distances, poorly maintained lines, and outdated technologies (Onah & Ogbuju, 2025). Much of the network has exceeded its design lifespan, and Nigeria experienced 222 partial or total grid collapses between January 2010 and September 2022 (Okafor, 2022).

For decentralized electricity markets, transmission constraints create complex coordination challenges. State-level generation projects require transmission access to deliver electricity within states, yet the transmission system remains under federal control through the Transmission Company of Nigeria. If transmission infrastructure cannot evacuate state-level generation, investment in new capacity risks being stranded, deterring private investors and undermining commercial viability. Addressing these constraints requires billions of dollars in capital investment to upgrade infrastructure, expand capacity, and modernize operational systems including Supervisory Control and Data Acquisition technologies. Coordinated investment planning and burden-sharing mechanisms between federal and state actors remain underdeveloped in the current framework.

**Regulatory Coordination and Jurisdictional Conflicts**

The dual regulatory regime introduces coordination complexities and potential jurisdictional conflicts that can impede market efficiency and deter investment. Where electricity activities involve both intra-state operations and interfaces with the national grid or interstate electricity flows, both NERC and State Electricity Regulatory Commissions exercise jurisdiction, requiring dual approvals for licensing, tariff adjustments, and operational changes (Aluko & Oyeboade, 2024a). Conflicts can arise across multiple dimensions: licensing authority when projects span jurisdictional boundaries, tariff regulation when electricity flows cross state lines, and dispute resolution when parties disagree about applicable regulatory authority.

The Imo State experience illustrates how jurisdictional ambiguities and coordination gaps can generate destructive conflicts. Regulatory overlap between NERC and the Imo State Electricity Regulatory Commission, combined with unclear investor-entry frameworks and inadequate licensing guidelines, resulted in disputes involving the state government, distribution companies, and prospective investors (Obasa et al., 2025). Effective coordination requires joint licensing procedures for multi-jurisdictional projects, harmonized technical standards, coordinated tariff methodologies, and binding dispute resolution mechanisms. International experience from India and Brazil suggests that robust coordination institutions are essential to prevent fragmentation and ensure system reliability (Armijo & Jha, 1997).

**Capacity and Resource Constraints in State Institutions**

Many Nigerian states face substantial capacity and resource constraints that limit their ability to implement decentralized electricity markets effectively. Establishing credible regulatory commissions requires personnel with specialized knowledge in electrical engineering, economics, law, and finance, skills that remain in limited supply across Nigeria's labor market (NERC, 2024). States with weak fiscal positions may lack resources to commission electricity master plans, engage advisors, and fund ongoing operations, resulting in regulatory institutions that exist formally but lack operational capacity (Daggash, 2024). The cumulative risk is a two-tier system in which institutionally strong states develop effective electricity markets that attract investment, while capacity-constrained states struggle to operationalize their constitutional authority, perpetuating regional development disparities.

**Financial Sustainability and Tariff Design Challenges**

Electricity sector financial sustainability represents a persistent challenge in Nigeria, and decentralization introduces new complexities in tariff design and revenue adequacy. State regulatory commissions must balance multiple competing objectives: ensuring cost recovery for efficient operators, maintaining consumer affordability, supporting industrial competitiveness, and providing adequate returns to attract private investment. States face political pressures to keep tariffs low, yet artificially suppressed tariffs undermine sector

financial sustainability and deter private investment. Nigeria's history of weak cost recovery, particularly from agricultural consumers who historically paid rates far below generation costs, risks being replicated at the state level. Coordinated tariff methodologies are necessary across states to prevent regulatory arbitrage, while metering infrastructure must be expanded to reduce commercial losses, requiring substantial capital investment and clear cost allocation decisions (1st Attorneys, 2025).

### **Risk of Regional Fragmentation and Inequality**

Electricity sector decentralization creates risks of regional fragmentation and exacerbated inequality if implementation proceeds unevenly across states. Nigeria already experiences substantial regional inequalities in electricity access, with rural areas and northern regions significantly underserved compared to urban areas and southern states (Intel Point, 2025). If decentralization accelerates development in already advantaged states while leaving capacity-constrained states further behind, regional inequality could widen, creating political tensions and undermining national development objectives. Fragmentation risks also arise from potential incompatibilities in technical standards, regulatory frameworks, and operational practices across states, which could complicate interstate electricity trade and compromise national grid operations. Preventing these outcomes requires deliberate federal support for capacity building in less-resourced states, equitable allocation of the Rural Electrification Fund, coordinated technical standards, and targeted development partner assistance.

### **Policy Recommendations for Optimizing Electricity Decentralization**

#### **Strengthening Regulatory Coordination Mechanisms**

A Federal-State Electricity Regulatory Coordination Council should be formalized, bringing together NERC and all State Electricity Regulatory Commissions with legal standing and decision-making authority on cross-jurisdictional matters, including binding dispute resolution procedures. Joint licensing procedures, single-window clearance systems, harmonized grid codes, safety standards, metering specifications, and data reporting requirements should be developed collaboratively to reduce regulatory burden on investors and ensure interoperability while respecting legitimate state variations. The National Integrated Electricity Policy should be operationalized through detailed implementation guidelines that clearly delineate jurisdictional boundaries, establish protocols for joint decision-making, and comprehensively address licensing coordination, tariff methodology harmonization, and transmission access procedures.

#### **Accelerating Transmission Infrastructure Investment**

The federal government should increase budgetary allocations to transmission infrastructure expansion and modernization, recognizing that state-level generation and distribution investments depend on functional transmission capacity. Public-private partnerships, concessional financing from development finance institutions, and federal-

state cost-sharing mechanisms should be pursued to attract and sustain the scale of capital investment required. Comprehensive national transmission expansion planning should be conducted collaboratively between the Transmission Company of Nigeria, NERC, state regulators, and the Nigeria Independent System Operator, incorporating state electricity market development projections and renewable energy integration requirements. Technological modernization including Supervisory Control and Data Acquisition systems, advanced metering infrastructure, and grid automation technologies is equally critical to enhancing system reliability and enabling more sophisticated electricity market operations.

### **Building State Regulatory Capacity**

A National Electricity Regulatory Capacity Building Program should be established, potentially with development partner support, providing technical assistance, training, knowledge transfer, and institutional development to state regulatory commissions across regulatory economics, tariff methodology, licensing procedures, legal frameworks, dispute resolution, and technical planning. NERC should serve as a resource institution through secondment opportunities for state regulatory staff. Regional collaboration among states to establish shared technical service providers, joint training programs, or pooled regulatory capacity can address constraints that individual states struggle to overcome independently (Daggash, 2024). Competitive compensation frameworks are necessary to attract and retain qualified regulatory personnel, with development partners potentially providing transitional salary support while states build sustainable funding models.

### **Ensuring Equitable Regional Development**

The Rural Electrification Fund should be allocated with explicit equity considerations, incorporating access deficit metrics, rural population proportions, and poverty indicators to direct disproportionate resources toward the most underserved states and regions. Minimum national service standards defining baseline electricity service quality objectives for all states should be established, ensuring decentralization does not produce excessive regional service disparities. Federal capacity building and technical assistance should deliberately prioritize states with the weakest institutional capacities, and performance monitoring systems tracking access, reliability, tariff levels, investment attraction, and renewable energy deployment should generate publicly disclosed comparative data to drive accountability and enable identification of states requiring additional support.

### **Promoting Private Investment and Renewable Energy**

States should adopt model investment promotion frameworks developed through the Federal-State Regulatory Coordination Council, providing consistent regulatory templates across jurisdictions while permitting state-specific adaptations. Feed-in tariffs, tax incentives including income tax holidays, accelerated depreciation and import duty waivers on renewable energy equipment, and rigorously enforced renewable purchase obligations should be implemented consistently and rapidly to improve project economics and create

guaranteed demand for renewable generation. State-level renewable energy targets aligned with national climate commitments should be established, and mini-grid development facilitated through streamlined licensing, appropriate tariff frameworks, and coordination with grid extension planning to prevent stranded investments.

### Conclusion

The Electricity Act 2023 marks a decisive shift in Nigeria's electricity governance, empowering states to assume regulatory authority, attract investment, and design electricity strategies suited to regional circumstances. The study's conclusions must be read within the bounds set by its documentary methodology, its three-year temporal scope, and the absence of state-level performance data. These limitations preclude claims about the magnitude or timing of developmental effects and limit the precision with which responsibility for specific conflicts can be assigned. They do not, however, compromise the study's central finding, which rests on primary legal texts and comparative institutional analysis rather than on outcome measurement.

That finding is one of design asymmetry: the reform delivers high self-rule and weak shared-rule, departing from the institutional configurations adopted by structurally comparable federations in which concurrent electricity jurisdiction was paired with binding adjudicatory authority. Early implementation evidence—the Imo crisis, the Enugu tariff standoff, the uneven and in some cases stalled take-up of regulatory transfers—is consistent with the theoretical prediction that self-rule without shared-rule degrades into contested sovereignty in physically indivisible policy domains. This evidence is provisional in the sense that institutional consequences exhibit substantial latency and that emerging mechanisms such as FONER and the proposed JERCs may yet supply the missing coordination capacity. It is nonetheless sufficient to warrant action, because the remedies identified—a Federal-State Electricity Regulatory Coordination Council with binding dispute resolution authority, operationalized guidelines under the National Integrated Electricity Policy, accelerated transmission investment, systematic capacity building, and equity-weighted resource allocation—are justified by institutional design analysis rather than by demonstrated harm.

Realizing the reform's developmental potential therefore does not depend primarily on how many additional states complete regulatory transfers. It depends on whether Nigeria builds the adjudicatory shared-rule architecture that comparative experience indicates is indispensable, and does so before the reform's early institutional patterns harden into durable structures of regional inequality. Future research incorporating primary stakeholder data, state-level market metrics, and longer observational windows will be necessary to test the magnitude and trajectory of the predicted consequences. The present study establishes the structural conditions under which those consequences will unfold, and identifies the point of institutional intervention at which they remain amenable to correction.

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