

**Power and Paradox:
How Corruption and Political Risk Undermine Nigeria's Energy Development**

Noah Mulligan

George Mason University's Schar School of Policy and Government

POGO-550-B01 / GOVT-444-B02: International Development and Energy Policy

Professor Michael Curtis, Ph.D.

Summer 2025

Van Metre Hall 210

July 14, 2025

I. Executive Summary

Nigeria presents one of global development's most persistent paradoxes: a country rich in energy resources but plagued by widespread energy poverty. Despite being Africa's top oil exporter and holding the continent's largest proven gas reserves, over 90 million Nigerians lack reliable electricity. This juxtaposition stems not from technical or financial constraints, but from deep-rooted governance failures.

Two interlinked challenges lie at the core: corruption and political risk. These problems pervade the entire energy value chain, from opaque upstream licensing to midstream sabotage and downstream subsidy fraud. Institutional capture by political and business elites continues to weaken regulatory agencies, eroded trust, and deterred investment. The OPL 245 scandal, involving billions in bribes, exemplifies the legal and reputational risks stalling long-term development.¹

This paper examines how corruption and political risk fuel underdevelopment in Nigeria's energy sector, undermining investor confidence, weakening state capacity, and exacerbating inequality. Drawing on recent reforms, the 2021 Petroleum Industry Act and 2023 Electricity Act highlights both progress and persistent gaps.² Breaking this cycle requires targeted reform. Anti-corruption efforts should include strict auditing of subsidy flows, protection of enforcement agencies from political interference, and greater transparency in licensing and procurement. Simultaneously, political risk mitigation is key, via community engagement frameworks, stabilization clauses in contracts, and expanded use of multilateral risk insurance.

Institutional reforms are also essential. An independent energy regulator with statutory authority could ensure consistent, impartial oversight. Full implementation of the Petroleum Industry Act (PIA) and Electricity Act, backed by civil society monitoring, would help build accountability and public trust. Nigeria must also prioritize decentralized, off-grid energy, especially solar mini-grids, to serve rural areas and bypass corrupt legacy systems.

¹ "Timeline: Nigeria's OPL 245 Oilfield Licence Bribery Cases," *Reuters*, March 17, 2021, sec. World, <https://www.reuters.com/article/world/timeline-nigerias-opl-245-oilfield-licence-bribery-cases-idUSKBN2B92EA/>.

² "Nigeria - Power Sector Recovery Program," Text/HTML, World Bank, accessed July 14, 2025, <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/en/115731517496257028>.

Ultimately, Nigeria's energy future depends not on its resource endowment, but on the strength of its institutions. Addressing corruption and political risk is not optional, it is foundational to delivering energy, opportunity, and prosperity to over 220 million citizens.

II. Introduction

Nigeria's energy crisis is not a matter of scarcity but of access. Despite being endowed with over 37 billion barrels of proven oil reserves and more than 200 trillion cubic feet of natural gas, over 90 million Nigerians, more than one-third of the population, lack reliable access to electricity. This chronic underperformance persists in the face of tremendous natural resource wealth, dynamic human capital, and decades of reforms aimed at unlocking the country's full energy potential.

Nigeria's energy landscape reflects its postwar political economy. After the Civil War, the federal government expanded its control over oil, and by the 1970s, petrodollars drove a shift from agriculture to oil exports.³ While this attracted foreign investment and funded major infrastructure, the benefits were highly uneven. Oil wealth disproportionately enriched political elites, fostered corruption networks, and entrenched inequality.⁴ Indigenization policies and centralized control deepened the state's role in economic life, but failed to deliver broad-based development or reliable energy access.

Nigeria exemplifies the paradox of abundance: a nation rich in energy resources but hampered by chronic governance failures. Since the oil boom, the gap between state control and basic service delivery grew astronomically. The 1990s brought deep economic hardship, with soaring inflation, deteriorating infrastructure, and worsening energy access, even as oil revenues climbed.

Today, despite being Africa's largest economy and most populous country, Nigeria's energy system still fails to meet national needs.⁵ Major reforms, like the 2021 Petroleum Industry Act

³ Julius O. Ihonvbere and Timothy Shaw, *Illusions of Power: Nigeria in Transition* (Africa World Press, Inc.: Africa World Press, Inc., 1998).

⁴ Julius O. Ihonvbere and Timothy Shaw.

⁵ Michael Aklin et al., *Escaping the Energy Poverty Trap: When and How Governments Power the Lives of the Poor* (MIT Press, 2018).

and the 2023 Electricity Act, aim to attract investment and decentralize oversight, but remain stymied by entrenched corruption, weak institutions, and high political risk.⁶

This paper argues that without addressing these governance and risk challenges, even ambitious reforms will fall short. It examines energy poverty, regulatory conditions, and the institutional barriers blocking progress.

Universal energy access is more than a development goal, it is essential to national security, economic growth, and climate resilience. For Nigeria to move forward, it must confront the systemic dysfunctions at the core of its energy crisis.

III. Background: Nigeria's Energy Sector Landscape

Nigeria's energy paradox, rich in natural resources, yet chronically energy-poor, remains a core challenge to its development. Despite being Africa's largest oil producer and one of the most gas-endowed countries globally, the country struggles to provide reliable, affordable electricity to the majority of its population. The crisis reflects not a lack of resources, but institutional failure, infrastructure decay, and a misaligned energy policy framework that favors short-term fixes over long-term sustainability.⁷

A. Abundant Resources, Underutilized Potential

Nigeria is endowed with a wide array of energy resources. It holds over 37 billion barrels of proven oil reserves and over 200 trillion cubic feet (tcf) of natural gas, placing it in the top ten globally.⁸ The country's geographic position also gives it substantial solar potential, with daily solar radiation averaging 5.5 kWh/m², making it ideal for photovoltaic systems. Additionally, Nigeria possesses large-scale hydroelectric capacity, mostly centered around the Kainji and Shiroro dams, and biomass resources from agriculture and forestry residues.⁹

Yet these assets remain underleveraged. Gas flaring continues a large scale, representing both an environmental hazard and a lost opportunity for power generation. Solar and wind power, while

⁶ "Nigeria - Power Sector Recovery Program."

⁷ Oluseyi O Ajayi and Kolawole O Ajanaku, "Nigeria's Energy Challenge and Power Development: The Way Forward," *Energy & Environment* 20, no. 3 (2009): 411–13.

⁸ "Nigeria's Oil Reserves Reach 37.28 Billion Barrels, Gas Reserves Hit 210.54 Tcf – NUPRC - Nairametries," accessed July 14, 2025, <https://nairametries.com/2025/04/12/nigerias-oil-reserves-reach-37-28-billion-barrels-gas-reserves-hit-210-54-tcf-nuprc/>.

⁹ Ajayi and Ajanaku, "Nigeria's Energy Challenge and Power Development."

technically feasible, remain limited in deployment due to bureaucratic delays, weak incentives, and financing constraints. As of 2025, renewable energy sources account for less than 3% of electricity generation, while 77% comes from gas and 20% from hydro, with the remainder from off-grid systems.

B. Sector Structure: Fragmentation and Gaps

The structure of Nigeria’s energy sector reflects its legacy of state dominance, privatization, and regulatory fragmentation. The sector comprises four main components:

- **Generation:** Nigeria’s electricity generation is carried out by both public and private entities, but actual output remains consistently low, rarely exceeding 4,000 MW, despite an installed capacity of 5,000–6,000 MW. For a country of over 220 million people, this is severely inadequate. Chronic issues like frequent plant outages, gas supply disruptions, outdated infrastructure, and a shortage of skilled maintenance personnel further constrain reliable power generation.¹⁰
- **Transmission:** Managed by the Transmission Company of Nigeria (TCN), transmission remains entirely government-owned. It acts as a single buyer and wheeler of electricity from GenCos to DisCos. Grid expansion is slow, and the national grid suffers frequent collapses, averaging over 10 partial or total system failures per year.¹¹ However, it is important to highlight that in 2025, the TNC split into two companies, marking a major step in the Nigerian government’s efforts to modernize the nation’s electrical industry.¹²
- **Distribution (DisCos):** Eleven electricity distribution companies (DisCos) were privatized in 2013, but they remain heavily criticized for poor billing practices, frequent blackouts, limited investment in infrastructure, and political interference.¹³ Service quality remains uneven, particularly outside major urban centers.

¹⁰ Godswill A. Agbaitoro, “Is Having a Robust Energy Mix a Panacea for Resolving the Energy Crisis in Nigeria?,” *Renewable Energy Law and Policy Review* 7, no. 4 (2017): 7–16.

¹¹ Unini Chioma, “What You Need To Know About The Transmission Company Of Nigeria (TCN),” *TheNigeriaLawyer* (blog), September 30, 2022, <https://thenigeriaLawyer.com/what-you-need-to-know-about-the-transmission-company-of-nigeria-tcn/>.

¹² Opeyemi, “Tinubu Finally Restructures Electricity Industry, Announces Transmission Company’s New Model,” *The Capital NG* (blog), July 13, 2025, <https://www.thecapital.ng/tinubu-finally-restructures-electricity-industry-announces-transmission-companys-new-model/>.

¹³ Aklin et al., *Escaping the Energy Poverty Trap*.

- Off-grid systems: Given the grid’s limitations, millions rely on decentralized sources. Over 22 million small petrol- or diesel-powered generators, known locally as “*I-pass-my-neighbour*” sets, are in use across homes and small businesses. However, fuel shortages and rising prices severely limit their reliability.¹⁴

There is also a growing demand for off-grid solar and pay-as-you-go (PAYGO) systems offers hope.¹⁵ These technologies provide an affordable and sustainable alternative, particularly for rural communities and small enterprises. Companies like Lumos and Arnergy have piloted scalable PAYGO models, often with donor or government support. However, licensing delays and weak regulatory coordination still hinder growth.¹⁶

C. 2013 Privatization: High Hopes, Disappointing Outcomes

The 2013 unbundling and partial privatization of the Power Holding Company of Nigeria (PHCN) aimed to improve efficiency and attract investment by creating separate generation (GenCos), distribution (DisCos), and transmission (TCN) entities under the Nigerian Electricity Regulatory Commission (NERC). However, the reform has yielded limited results. DisCos remain undercapitalized, poorly managed, and often owned by politically connected firms with little sector expertise. Cost-reflective tariffs have been repeatedly delayed due to political pressure, weakening investor confidence. Transparency and accountability for service failures are lacking, and despite privatization, much of the sector still depends heavily on public funds—particularly through the Nigerian Bulk Electricity Trading (NBET) company, which mediates payments between GenCos and DisCos.¹⁷

D. Persistent Structural Challenges

In addition to governance and technical challenges, several structural issues continue to distort Nigeria’s energy sector. Many perceived President Tinubu’s 2023 fuel subsidy removal as a

¹⁴ Kofi Nyarko, Jonathan Whale, and Tania Urme, “Drivers and Challenges of Off-Grid Renewable Energy-Based Projects in West Africa: A Review,” *Heliyon* 9, no. 6 (June 1, 2023): e16710, <https://doi.org/10.1016/j.heliyon.2023.e16710>.

¹⁵ Michael Simire, “Nigeria’s Energy Crisis: Shedding Light on Corruption, Obstacles, Reforms for Energy Transition,” *EnviroNews - Latest Environment News, Climate Change, Renewable Energy* (blog), March 28, 2024, <https://www.environewsnigeria.com/nigerias-energy-crisis-shedding-light-on-corruption-obstacles-reforms-for-energy-transition/>.

¹⁶ Simire.

¹⁷ Aklin et al., *Escaping the Energy Poverty Trap*.

milestone in reducing fiscal leakage and improving market efficiency. Yet, indirect subsidies remain a major drag on Nigeria's energy sector reform. Electricity tariffs for lower-tier bands (B–E) are still priced far below the cost of generation and distribution, disincentivizing investment and crowding out spending on health, education, and infrastructure. In Q2 2024, these subsidies amounted to over ₦135 billion (approximately \$95 million USD). Despite President Tinubu's 2023 efforts to remove fuel subsidies, indirect subsidies—such as below-cost electricity tariffs for Bands B–E—persist, distorting market signals and straining public finances, with subsidies exceeding ₦135 billion (about \$95 million USD) in Q2 2024 alone.¹⁸ Foreign exchange volatility further complicates investment, as the sector relies heavily on imported inputs and suffers from FX shortages and unstable rates. Infrastructure neglect, including aging power plants, vandalized pipelines, and a weak transmission network, results in grid losses of over 30%.¹⁹ The grid's urban bias leaves rural areas underserved, forcing reliance on expensive and polluting alternatives that deepen inequality and stifle development. These structural inefficiencies cost Nigerian businesses an estimated \$29 billion annually—roughly 5–6% of GDP—with SMEs hit hardest due to generator reliance.²⁰ Still, there is growing momentum for reform. A diversified energy strategy—expanding off-grid solar, capturing flared gas, and improving regulatory efficiency—offers a way forward. The 2023 Electricity Act, which empowers state-level solutions, adds further promise. Energy reform is not only technical—it is a national imperative for inclusive growth and long-term stability.

IV. Governance and Corruption in the Energy Sector

Corruption within Nigeria's energy sector is widespread, affecting every stage of the value chain, from exploration to distribution. Roy et al. (2023) estimate that corruption-related inefficiencies cost SMEs over \$1.9 billion annually, largely due to overreliance on private diesel generators in

¹⁸ Muyiwa Lucas, "How Subsidy Removal Reshaped Oil Sector," *The Nation Newspaper* (blog), May 15, 2025, <https://thenationonline.net/how-subsidy-removal-reshaped-oil-sector/>.

¹⁹ Oluwakemisola Bogunjoko, "Why Nigeria's Power Grid Keeps Failing - Energy in Africa," December 12, 2024, <https://energyinafrica.com/insight/why-nigerias-power-grid-keeps-failing/>.

²⁰ Dennis Ezezi, "Nigeria Loses \$29bn to Poor Power Supply Annually - AfDB President Adesina," *The Guardian Nigeria News - Nigeria and World News* (blog), July 14, 2023, <https://guardian.ng/news/nigeria-loses-29bn-to-poor-power-supply-annually-afdb-president-adesina/>.

the absence of reliable grid access.²¹ These losses directly impact job creation, business competitiveness, and long-term economic productivity.

The corruption-energy-growth nexus is explored in several empirical studies. Halkos & Tzeremes (2014) used data from 1990–2011 to show that renewable electricity consumption can foster economic growth, but the effect varies across countries and diminishes after a certain threshold, especially in developing economies with weak institutions.²² Similarly, Omri et al. (2015) employed causality models to show mixed directional relationships between clean energy consumption and GDP across countries, reinforcing the idea that energy transitions do not occur in isolation from political and institutional contexts.²³

Apergis et al. (2014) took a historical approach, examining data from 1965 to 2012, and found that hydroelectricity consumption had a long-term, bidirectional relationship with economic growth in high-consuming nations.²⁴ Crucially, they found that pre-1988, energy demand was a driver of growth, while post-1988, policy decisions and governance increasingly shaped consumption patterns, an insight highly relevant for Nigeria, which continues to rely on top-down state policy in energy development.

The OPL 245 scandal, extensively documented by Transparency International (2023), illustrates elite capture and the corrosive effects of opaque licensing regimes.²⁵ In 2011, oil majors Shell and Eni paid \$1.3 billion for a lucrative offshore block, with an estimated \$1.1 billion diverted through intermediaries to senior government officials.²⁶ The fallout reverberated across five

²¹ Pallavi Roy et al., “Breaking the Cycle of Corruption in Nigeria’s Electricity Sector: Off-Grid Solutions for Local Enterprises,” *Energy Research & Social Science* 101 (July 1, 2023): 103130, <https://doi.org/10.1016/j.erss.2023.103130>.

²² George E. Halkos and Nickolaos G. Tzeremes, “The Effect of Electricity Consumption from Renewable Sources on Countries’ Economic Growth Levels: Evidence from Advanced, Emerging and Developing Economies,” *Renewable and Sustainable Energy Reviews* 39 (November 1, 2014): 166–73, <https://doi.org/10.1016/j.rser.2014.07.082>.

²³ Anis Omri, Nejah Ben Mabrouk, and Amel Sassi-Tmar, “Modeling the Causal Linkages between Nuclear Energy, Renewable Energy and Economic Growth in Developed and Developing Countries,” *Renewable and Sustainable Energy Reviews* 42 (February 1, 2015): 1012–22, <https://doi.org/10.1016/j.rser.2014.10.046>.

²⁴ “(PDF) Renewable Energy and Economic Growth: Evidence from the Sign of Panel Long-Run Causality,” *ResearchGate*, accessed July 14, 2025, https://www.researchgate.net/publication/279569928_Renewable_Energy_and_Economic_Growth_Evidence_from_the_Sign_of_Panel_Long-Run_Causality.

²⁵ “2023 Corruption Perceptions Index: Explore the Results,” Transparency.org, January 30, 2024, <https://www.transparency.org/en/cpi/2023>.

²⁶ “Timeline.”

countries, eroding Nigeria's credibility and triggering years of criminal and civil litigation. The case also exposed critical oversight failures by the Ministry of Petroleum, the Nigerian National Petroleum Corporation (NNPC), and other institutional actors, failures mirrored in other sectors. For example, the NERC, the Rural Electrification Agency (REA), and various state-level ministries have similarly struggled to fulfill their mandates due to political interference, underfunding, and capacity gaps. These systemic inefficiencies have led to project delays, cost overruns, and declining public trust in regulatory enforcement.

A. Political and Legal Risks

In addition to corruption, Nigeria's energy sector is shaped by pervasive political and legal risks. The Bloomfield LP (2023) Nigeria Energy Outlook identifies key areas of investor concern: weak rule of law, inconsistent policy enforcement, exposure to expropriation, and high rates of civil unrest in oil-producing regions.²⁷ The report highlights how delayed implementation of reform laws like the PIA discouraged capital inflows and emboldened rent-seeking behavior.²⁸

Political instability in the Niger Delta, marked by pipeline vandalism, oil theft, and recurring militant attacks, adds another layer of uncertainty. These risks increase operating costs, strain security budgets, and delay construction of energy infrastructure.²⁹ Regulatory changes such as the 2023 Electricity Act, which decentralizes control to states, offer long-term potential but are currently hampered by capacity shortfalls and inconsistent implementation across states.³⁰

Furthermore, contract enforcement remains a major challenge. Investors report widespread breaches of Power Purchase Agreements (PPAs) and transmission contracts, with few legal remedies available. The country's courts are under-resourced and perceived as slow, politically influenced, and unreliable in commercial matters. As such, investors often demand sovereign guarantees or bypass Nigeria entirely in favor of less risky environments.

²⁷ Dr Orji Ogbonnaya Orji, "Bloomfield LP's Energy Practice Brings You Highlights of Interesting Energy Developments in Nigeria August 21, 2023.," n.d.

²⁸ Miloš Resimić, "Corruption and Anti-Corruption Efforts in Nigeria's Electricity Sector," U4 Anti-Corruption Resource Centre, accessed July 2, 2025, <https://www.u4.no/publications/corruption-and-anti-corruption-efforts-in-nigerias-electricity-sector>.

²⁹ Aklin et al., *Escaping the Energy Poverty Trap*.

³⁰ Miloš Resimić, "Corruption and Anti-Corruption Efforts in Nigeria's Electricity Sector."

Nigeria's foreign exchange (FX) regime further complicates operations. Restrictions on FX availability and repatriation limit the ability of firms to import energy equipment or extract returns on investment. Without a stable and predictable FX environment, large-scale infrastructure projects, particularly in renewables and gas-to-power, remain unattractive.

B. Impact on Energy Access and the Clean Energy Transition

Governance failures and political risk directly hinder energy access and Nigeria's clean energy transition. Over 90 million Nigerians, mostly in rural areas, lack grid electricity, while SMEs, hospitals, and schools face unreliable power and high diesel costs. Electricity reliability ranks among the top business challenges, with companies spending up to 30% of operating costs on self-generation, disproportionately affecting small and women-led firms.³¹

Off-grid solar and mini-grid solutions, backed by initiatives like the Nigeria Electrification Project (NEP), show promise but are slowed by opaque licensing, poor coordination, and elite capture. Land disputes and misallocated contracts have stalled projects in states like Kogi and Nasarawa. Corruption also plagues subsidy programs. Despite 2023 reforms, electricity subsidies remain vulnerable to abuse. Nigeria Extractive Industries Transparency Initiative (NEITI) audits uncovered billions in fraudulent claims by DisCos, often enabled by regulators.

While donors like the World Bank and African Development Bank now require anti-corruption safeguards, enforcement is inconsistent and hampered by weak local institutions.

C. Synthesis: Systemic Risk and Energy Injustice

Nigeria's energy sector is emblematic of a broader problem: state capture and institutional failure. Corruption is not a side effect, it is a feature of the system, with predictable and damaging consequences.³² It undermines the legitimacy of reform efforts, inhibits private capital formation, increases transaction costs, creates perverse incentives, and perpetuates inequality and limited social mobility. At the same time, Nigeria's political risk profile, including insecurity, FX volatility, judicial unreliability, and policy inconsistency, discourages long-term investment in clean energy solutions. These risks are particularly damaging for the rural poor and marginalized communities who rely most heavily on decentralized and affordable energy access. Without

³¹ Aklin et al., *Escaping the Energy Poverty Trap*.

³² Aklin et al.

deliberate, institutionalized reforms to increase transparency, protect contracts, and empower civil society, Nigeria risks further entrenching a dysfunctional status quo. Future progress will depend not only on technological innovation or capital availability, but on the political will to confront the entrenched interests profiting from dysfunction.

V. Policy Landscape and Investment Climate

Nigeria's energy sector stands at the crossroads of ambitious reforms and persistent dysfunction. Despite numerous initiatives over the past decade, uneven implementation, ongoing corruption, and weak investor protections continue to undermine confidence. This section reviews recent macroeconomic and sector reforms, assesses the investment climate, and highlights key barriers to private sector involvement in Nigeria's energy transition.

Macroeconomic Reforms Impacting Energy Investment

Recent stabilization efforts by the Central Bank of Nigeria (CBN) include aggressive interest rate hikes in 2024–2025 to curb inflation and stabilize expectations, critical for long-term energy investments. The 2024 unification of Nigeria's multiple exchange rates into a single market-driven rate improved price transparency and creditworthiness, though short-term volatility persists.³³ President Tinubu's phased removal of petrol and electricity subsidies since 2023, despite political and inflationary challenges, narrowed the fiscal deficit and leveled the playing field for renewable energy providers, enhancing sector sustainability.

Energy Sector Policy Framework and Challenges

Key policies shaping the sector include the World Bank-backed Power Sector Recovery Plan (PSRP), promoting cost-reflective tariffs and improved regulatory transparency; the 2022 Energy Transition Plan (ETP), targeting net-zero emissions by 2060 with a focus on gas-to-power and renewables; and the 2021 PIA, which commercialized NNPC and established the Host Communities Development Trust.³⁴ However, weak enforcement, regulatory inconsistency, financial insolvency of distribution companies, and security issues, especially in the Niger Delta, undermine progress. Tariff instability and currency risks further impair project financing, even for higher-paying consumer segments.

³³ "Nigeria's Central Bank Surprises with Fifth Rate Hike This Year | Reuters," accessed July 14, 2025, <https://www.reuters.com/markets/nigerias-central-bank-surprises-with-rate-hike-2725-2024-09-24/>.

³⁴ "Nigeria - Power Sector Recovery Program."

International Support and Climate Commitments

Multilateral development banks like the World Bank, IFC, and AfDB provide vital financial and technical aid tied to tariff reforms, mini-grid expansion, and anti-corruption measures. Yet donor confidence depends heavily on demonstrated transparency and regulatory independence.

Nigeria's 2060 net-zero commitment under the Paris Agreement adds urgency, but slow progress in rural electrification and decentralized energy threatens to make climate goals aspirational without stronger enforcement and political will.³⁵

Investment Climate: Outlook and Constraints

While macroeconomic reforms have improved stability, the investment climate remains challenging. Currency volatility and FX repatriation delays deter foreign investment, and policy unpredictability fuels uncertainty. Lengthy, bureaucratic licensing (18–24 months) stifles innovation in renewables and mini-grids. Limited access to credit guarantees, sovereign risk-sharing tools, and blended finance further reduces investor appetite, especially in off-grid markets.³⁶ Public-private partnership frameworks exist but lack effective implementation and transparency, with procurement processes vulnerable to political influence. These factors restrict private capital flow, hindering Nigeria's pursuit of inclusive and sustainable energy access.³⁷

VI. Policy Recommendations

To address Nigeria's energy paradox and build a sector that is reliable, equitable, and investment-ready, reforms must be grounded in three strategic pillars: (A) governance and anti-corruption reform, (B) political risk mitigation and institutional strengthening, and (C) investment incentives for clean and decentralized energy. Each pillar should prioritize both near-term stabilization and long-term transformation of the energy sector.

A. Governance and Anti-Corruption Reform

Nigeria's energy future depends on dismantling the entrenched systems of corruption and elite capture that have eroded public trust and discouraged investment. While transparency pledges

³⁵ "Net Zero Targets," accessed July 14, 2025, <https://climateactiontracker.org/countries/nigeria/net-zero-targets/>.

³⁶ Ikechukwu Ogeze Ukeje et al., "Bureaucratization and Service Delivery in Nigeria," in *Global Encyclopedia of Public Administration, Public Policy, and Governance* (Springer, Cham, 2022), 1330–42, https://doi.org/10.1007/978-3-030-66252-3_3824.

³⁷ Ukeje et al.

are now common in government rhetoric, enforcement and follow-through remain weak. Rebuilding investor confidence and restoring the credibility of reforms requires several targeted measures. First, subsidy reform must be transparent and accountable. The federal government should create real-time, publicly accessible dashboards that track fuel disbursements, electricity subsidies, and payment flows across the Nigerian Bulk Electricity Trading (NBET) company and the distribution companies (DisCos).³⁸ These data should be supplemented by annual third-party audits, conducted in partnership with the NEITI or international firms, with all findings reported to the National Assembly. A shift to performance-based subsidy allocation would incentivize efficiency and penalize fraudulent behavior.³⁹

Second, depoliticizing and professionalizing Nigeria’s regulatory institutions is critical. The NERC should be granted statutory autonomy, with fixed-term leadership appointments requiring Senate confirmation to insulate it from executive interference.⁴⁰ Recruiting qualified technical staff through a merit-based system and offering competitive salaries across agencies, such as NERC, the REA, and the Ministry of Power, would reduce political patronage and enhance institutional capacity. Senior officials should be required to submit asset declarations and disclose conflicts of interest to bolster integrity and accountability.⁴¹

Third, procurement and licensing processes must be reformed to close loopholes that enable corruption. The licensing system for mini-grid and renewable energy projects should be digitized and centralized to limit discretion and speed approvals. Nigeria should also join the Open Contracting Partnership and publish all energy procurement contracts above ₦100 million (roughly \$65,000 USD) online. To ensure oversight, large-scale projects and power purchase agreement (PPA) approvals should include civil society observers on procurement evaluation panels.⁴²

B. Political Risk Mitigation and Institutional Strengthening

³⁸ Roy et al., “Breaking the Cycle of Corruption in Nigeria’s Electricity Sector.”

³⁹ Roy et al.

⁴⁰ Roy et al.

⁴¹ “Powering Nigeria: A Recap of Recent Developments in the Electric Power Sector as 2024 Commences with a Flurry of Regulatory Interventions and Proposed Power Asset Sales - Aluko & Oyeboode,” accessed July 14, 2025, <https://www.aluko-oyebode.com/insights/developments-regulatory-changes-nigeria-electricity-sector-2024/>.

⁴² Open Contracting, “Subnational Open Contracting Reforms: Lessons from Nigeria’s State Governors,” *Open Contracting Partnership* (blog), November 10, 2021, <https://www.open-contracting.org/2021/11/10/subnational-open-contracting-reforms-lessons-from-nigerias-states/>.

Political and legal uncertainty remains a major barrier to energy investment in Nigeria. To address this, new PPAs and infrastructure concessions should include stabilization clauses, international arbitration (e.g., via the London Court of International Arbitration), and enforceable legal safeguards.

Risk mitigation tools should also be expanded. Nigeria should partner with MIGA and ATI to scale political risk insurance, especially for renewable and off-grid projects. Sovereign-backed partial risk guarantees and first-loss facilities, supported by DFIs, would help de-risk investment in underserved areas and support local mini-grid operators.

Strengthening state regulatory capacity under the 2023 Electricity Act is equally critical. States need technical and financial support to implement decentralized markets and enforce contracts. Peer learning between experienced states (e.g., Lagos, Kaduna) and newer ones can speed institutional growth. A federal compliance unit should also monitor state licensing and consumer protections to ensure national consistency.⁴³

C. Investment Incentives and Off-Grid Clean Energy Deployment

Nigeria's energy access and climate objectives cannot be achieved without a decentralized model centered on clean technologies such as solar mini-grids, PAYGO systems, and clean cooking solutions.⁴⁴ These solutions offer scalable and cost-effective alternatives to legacy infrastructure, particularly in rural and underserved communities. Scaling this segment requires a supportive financial and regulatory environment.

One key approach is to expand results-based financing for off-grid markets. Programs like the Nigeria Electrification Project (NEP) should be scaled up and linked to verified rural energy connections. Special funding windows should prioritize women-led enterprises and critical social institutions such as schools and health clinics. Deployment strategies should be guided by geospatial energy access mapping to avoid duplications and ensure equitable coverage.

Tax and import incentives can further accelerate growth. The government should temporarily suspend import duties and value-added tax (VAT), similar to what Bangladesh proposed in 2025,

⁴³ Kris Ivanovski and Nicholas Marinucci, "Policy Uncertainty and Renewable Energy: Exploring the Implications for Global Energy Transitions, Energy Security, and Environmental Risk Management," *Energy Research & Social Science* 82 (December 1, 2021): 102415, <https://doi.org/10.1016/j.erss.2021.102415>.

⁴⁴ Ivanovski and Marinucci.

on essential renewable energy components, including solar panels, inverters, lithium-ion batteries, and mini-grid equipment, for at least five to ten years.⁴⁵ First-mover companies operating in high-risk or low-access areas should also benefit from time-bound tax holidays, such as three- to five-year exemptions.

Finally, to streamline investment and improve coordination, Nigeria should create a dedicated Renewable Energy Investment Promotion Platform like the NSIA developed in 2023.⁴⁶ This "One-Stop Energy Investment Hub" within the Ministry of Power would centralize licensing, land access, and coordination with donors. A publicly accessible pipeline of approved mini-grid projects should be maintained to allow private firms to bid for standardized deployment contracts. To strengthen accountability, the government can also integrate crowdsourced tools, such as mobile apps or WhatsApp-based reporting systems, to monitor project delivery and service reliability in real time.

VII. Conclusion

Nigeria's energy transition is not a technical problem but a governance challenge. Addressing systemic corruption, strengthening the rule of law, and expanding investor protections are prerequisites, not afterthoughts, for achieving universal energy access and climate resilience. Reforms should be designed with accountability at their core, grounded in transparency, civil society oversight, and local ownership. This transformation will not be easy, but the rewards are immense: lower energy costs, job creation, reduced emissions, and an end to the energy poverty that stifled Nigeria's economic and human development for decades.

⁴⁵ "Bangladesh Proposes Import Duty, VAT Exemptions for Solar Products – Pv Magazine International," accessed July 14, 2025, <https://www.pv-magazine.com/2025/02/06/bangladesh-proposes-import-duty-vat-exemptions-for-solar-products/>.

⁴⁶ 8rdmh, "NSIA Unveils Renewables Investment Platform For Limitless Energy ('RIPL') & Signs Partnership Agreement With IFC To Propel Energy Transition In Nigeria," *NSIA* (blog), November 20, 2023, <https://nsia.com.ng/nigeria-sovereign-investment-authority-unveils-renewables-investment-platform-for-limitless-energy-riple-and-signs-partnership-agreement-with-ifc-to-propel-energy-transition-in-ni/>.

VIII. References

- 8rdmh. “NSIA Unveils Renewables Investment Platform For Limitless Energy (‘RIPL’) & Signs Partnership Agreement With IFC To Propel Energy Transition In Nigeria.” *NSIA* (blog), November 20, 2023. <https://nsia.com.ng/nigeria-sovereign-investment-authority-unveils-renewables-investment-platform-for-limitless-energy-riple-and-signs-partnership-agreement-with-ifc-to-propel-energy-transition-in-ni/>.
- Agbaitoro, Godswill A. “Is Having a Robust Energy Mix a Panacea for Resolving the Energy Crisis in Nigeria?” *Renewable Energy Law and Policy Review* 7, no. 4 (2017): 7–16.
- Ajayi, Oluseyi O, and Kolawole O Ajanaku. “Nigeria’s Energy Challenge and Power Development: The Way Forward.” *Energy & Environment* 20, no. 3 (2009): 411–13.
- Aklin, Michael, Patrick Bayer, S. P. Harish, and Johannes Urpelainen. *Escaping the Energy Poverty Trap: When and How Governments Power the Lives of the Poor*. MIT Press, 2018.
- “Bangladesh Proposes Import Duty, VAT Exemptions for Solar Products – Pv Magazine International.” Accessed July 14, 2025. <https://www.pv-magazine.com/2025/02/06/bangladesh-proposes-import-duty-vat-exemptions-for-solar-products/>.
- Bogunjoko, Oluwakemisola. “Why Nigeria’s Power Grid Keeps Failing - Energy in Africa,” December 12, 2024. <https://energyinafrica.com/insight/why-nigerias-power-grid-keeps-failing/>.
- Chioma, Unini. “What You Need To Know About The Transmission Company Of Nigeria (TCN).” *TheNigeriaLawyer* (blog), September 30, 2022. <https://thenigeria lawyer.com/what-you-need-to-know-about-the-transmission-company-of-nigeria-tcn/>.
- Contracting, Open. “Subnational Open Contracting Reforms: Lessons from Nigeria’s State Governors.” *Open Contracting Partnership* (blog), November 10, 2021. <https://www.open-contracting.org/2021/11/10/subnational-open-contracting-reforms-lessons-from-nigerias-states/>.
- Erezi, Dennis. “Nigeria Loses \$29bn to Poor Power Supply Annually - AfDB President Adesina.” *The Guardian Nigeria News - Nigeria and World News* (blog), July 14, 2023. <https://guardian.ng/news/nigeria-loses-29bn-to-poor-power-supply-annually-afdb-president-adesina/>.
- Halkos, George E., and Nickolaos G. Tzeremes. “The Effect of Electricity Consumption from Renewable Sources on Countries’ Economic Growth Levels: Evidence from Advanced, Emerging and Developing Economies.” *Renewable and Sustainable Energy Reviews* 39 (November 1, 2014): 166–73. <https://doi.org/10.1016/j.rser.2014.07.082>.
- Ivanovski, Kris, and Nicholas Marinucci. “Policy Uncertainty and Renewable Energy: Exploring the Implications for Global Energy Transitions, Energy Security, and Environmental Risk Management.” *Energy Research & Social Science* 82 (December 1, 2021): 102415. <https://doi.org/10.1016/j.erss.2021.102415>.
- Julius O. Ihonvbere and Timonhy Shaw. *Illusions of Power: Nigeria in Transition*. Africa World Press, Inc.: Africa World Press, Inc., 1998.
- Lucas, Muyiwa. “How Subsidy Removal Reshaped Oil Sector.” *The Nation Newspaper* (blog), May 15, 2025. <https://thenationonline.net/how-subsidy-removal-reshaped-oil-sector/>.

- Miloš Resimić. “Corruption and Anti-Corruption Efforts in Nigeria’s Electricity Sector.” U4 Anti-Corruption Resource Centre. Accessed July 2, 2025. <https://www.u4.no/publications/corruption-and-anti-corruption-efforts-in-nigerias-electricity-sector>.
- “Net Zero Targets.” Accessed July 14, 2025. <https://climateactiontracker.org/countries/nigeria/net-zero-targets/>.
- “Nigeria’s Central Bank Surprises with Fifth Rate Hike This Year | Reuters.” Accessed July 14, 2025. <https://www.reuters.com/markets/nigerias-central-bank-surprises-with-rate-hike-2725-2024-09-24/>.
- “Nigeria’s Oil Reserves Reach 37.28 Billion Barrels, Gas Reserves Hit 210.54 Tcf – NUPRC - Nairametrics.” Accessed July 14, 2025. <https://nairametrics.com/2025/04/12/nigerias-oil-reserves-reach-37-28-billion-barrels-gas-reserves-hit-210-54-tcf-nuprc/>.
- Nyarko, Kofi, Jonathan Whale, and Tania Urmee. “Drivers and Challenges of Off-Grid Renewable Energy-Based Projects in West Africa: A Review.” *Heliyon* 9, no. 6 (June 1, 2023): e16710. <https://doi.org/10.1016/j.heliyon.2023.e16710>.
- Omri, Anis, Nejah Ben Mabrouk, and Amel Sassi-Tmar. “Modeling the Causal Linkages between Nuclear Energy, Renewable Energy and Economic Growth in Developed and Developing Countries.” *Renewable and Sustainable Energy Reviews* 42 (February 1, 2015): 1012–22. <https://doi.org/10.1016/j.rser.2014.10.046>.
- Opeyemi. “Tinubu Finally Restructures Electricity Industry, Announces Transmission Company’s New Model.” *The Capital NG* (blog), July 13, 2025. <https://www.thecapital.ng/tinubu-finally-restructures-electricity-industry-announces-transmission-companys-new-model/>.
- Orji, Dr Orji Ogbonnaya. “Bloomfield LP’s Energy Practice Brings You Highlights of Interesting Energy Developments in Nigeria August 21, 2023.,” n.d.
- “(PDF) Renewable Energy and Economic Growth: Evidence from the Sign of Panel Long-Run Causality.” *ResearchGate*. Accessed July 14, 2025. https://www.researchgate.net/publication/279569928_Renewable_Energy_and_Economic_Growth_Evidence_from_the_Sign_of_Panel_Long-Run_Causality.
- “Powering Nigeria: A Recap of Recent Developments in the Electric Power Sector as 2024 Commences with a Flurry of Regulatory Interventions and Proposed Power Asset Sales - Aluko & Oyebode.” Accessed July 14, 2025. <https://www.aluko-oyebode.com/insights/developments-regulatory-changes-nigeria-electricity-sector-2024/>.
- Reuters*. “Timeline: Nigeria’s OPL 245 Oilfield Licence Bribery Cases.” March 17, 2021, sec. World. <https://www.reuters.com/article/world/timeline-nigerias-opl-245-oilfield-licence-bribery-cases-idUSKBN2B92EA/>.
- Roy, Pallavi, Mitchell Watkins, Chijioke Kelechi Iwuamadi, and Jibrin Ibrahim. “Breaking the Cycle of Corruption in Nigeria’s Electricity Sector: Off-Grid Solutions for Local Enterprises.” *Energy Research & Social Science* 101 (July 1, 2023): 103130. <https://doi.org/10.1016/j.erss.2023.103130>.
- Simire, Michael. “Nigeria’s Energy Crisis: Shedding Light on Corruption, Obstacles, Reforms for Energy Transition.” *EnviroNews - Latest Environment News, Climate Change, Renewable Energy* (blog), March 28, 2024. <https://www.environewsnigeria.com/nigerias-energy-crisis-shedding-light-on-corruption-obstacles-reforms-for-energy-transition/>.
- Transparency.org. “2023 Corruption Perceptions Index: Explore the Results,” January 30, 2024. <https://www.transparency.org/en/cpi/2023>.

Ukeje, Ikechukwu Ogeze, Udu Ogbulu, Onyema Ugwu Eze, Raphael Abumchukwu Ekwunife, Obi Yves-Mary Virginia, and Obasi Victoria Ugochi. "Bureaucratization and Service Delivery in Nigeria." In *Global Encyclopedia of Public Administration, Public Policy, and Governance*, 1330–42. Springer, Cham, 2022. https://doi.org/10.1007/978-3-030-66252-3_3824.

World Bank. "Nigeria - Power Sector Recovery Program." Text/HTML. Accessed July 14, 2025. <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/en/115731517496257028>.