



Sustainable Energy
Fund for Africa



Development of State Electricity Priority Plan and
Implementation Roadmap for Ekiti State

Ekiti State Electricity Priority Plan and Implementation Roadmap (SEPP-IR)

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Contents

Abbreviations	05		
Executive Summary	10		
1 Introduction	13		
2 Business Model Portfolio Structure	15		
2.1 Aligning Proposed Business Models With Market Development Phases	15		
2.2 Document Structure And Approach	18		
3 Franchising Site Selection And Delineation	19		
3.1 Site Selection Criteria	19		
3.2 Distribution Asset & Service Delineation	20		
3.3 Boundary And Bulk Metering	21		
4 Business Model Recommendations For Ekiti State Electricity Market.	21		
4.1 Model A - Independent Power Producers	23		
4.2 Model B: Mini-Grid Operator	25		
4.3 Model C: Energy Services Company (Esco)	27		
4.4 Model D: Integrated Transmission & Distribution Franchise With Open Access	29		
4.5 Model E: Cluster Offtake Units (Cous)	31		
5 General Safeguards And Monitoring	35		
5.1 Environmental Safeguards	35		
5.2 Social Safeguards	36		
		5.3 Monitoring Framework	36
		Ekserb Business Plan And Operational Manual	37
		7 Ekserb Operational Structure And Staffing Plan	38
		8 Regulatory Framework And Functions	41
		9 Institutional Interactions And Collaboration	44
		10 Proposed Revenue Streams And Financial Projection	46
		11 Ekserb Capacity Development And Mentorship Programme	50
		12 Priority Regulatory Instruments And Roadmap	54
		13 Investment And Inclusive Regulation Considerations	55
		14 Performance Monitoring And Reporting	57
		15 Conclusion	58
		Sustainable Capacity Building Framework For Ekiti State Electricity Market	59
		16 Capacity Assessment Of Ekiti State Electricity Market	60
		17 Goals	61
		17.1 Vision	61
		17.2 Strategic Objectives	61
		18 Capacity Building Framework	61
		19 Sustainability Measures For Capacity Building Framework	67
		19.1 Community Engagement And	67

	Accountability Mechanism		Priority Renewable Energy Projects In Ekiti State	
	19.2 Institutional Collaboration	67		
20	Implementation Roadmap (2025–2030)	70	29 Project-Specific Risk & Mitigation Profiles	91
21	Monitoring & Evaluation (M&E)	72	30 Conclusion	94
22	Funding Mechanisms	74	Policy Gaps And Strategic Policy Options For Ekiti State Electricity Market	95
	22.1 Core Funding Mechanisms To Leverage	75	31 Identified Policy Gaps	96
23	Conclusion	75	32 Strategic Policy Recommendation	98
	Pipeline Of Bankable Renewable Energy Projects In Ekiti State	76	33 Data-Informed Policy Making	100
24	Market Overview: Demand & Supply	77	34 Policy Implementation Support Instruments	102
25	Renewable Energy Resource Summary	78	35 Conclusion	102
	25.1 Off-Grid Electricity Access Across Local Government Areas (Lgas) In Ekiti State	78	Implementation Roadmap For Ekiti State Electricity Market	103
	Key Insights For Electrification Planning Implications For Electrification Interventions: This Analysis Supports Strategic Decisions On The Appropriate Electrification Pathway Per Lga:	81	37 Implementation Roadmap	104
26	Investment Archetypes & Funding Mechanisms	83		
27	Project Pipeline Table	83		
28	Bankability Profiles For Ekiti State Renewable Energy Projects	89		
	28.1 Project-Specific Profiles And Partnership Opportunities For	89		



Table of Figure

Table 2-1	Proposed Business Models & market Alignment
Table 4-1	Model A - Independent Power Producers
Table 4-2	Model B: Mini-Grid Operator
Table 4-3	Model C: Energy Services Company (Esco)
Table 4-4	Model D: Integrated Transmission & Distribution Franchise with Open Access
Table 4-5	MODEL E: CLUSTER OFFTAKE UNITS (COUS)
Table 7-1	EKSERB OPERATIONAL STRUCTURE AND STAFFING PLAN
Table 8-1	Regulatory Framework and Functions of the Ekiti State Electricity Regulatory Bureau (EKSERB)
Table 9-1	Institutional Roles and Expected Interactions
Table 10-1	Proposed Revenue Streams
Table 10-2	Five-year Revenue Item List
Table 10-3	Five-year Expenditure Item list
Table 10-4	Five-year Revenue projections
Table 11-1	Proposed EkSERB Capacity Development Programme
Table 12-1	Regulatory Instrument & Timeline
Table 16-1	key capacity challenges
Table 20-1	Sustainable Capacity Building Framework Roadmap
Table 21-1	Monitoring & Evaluation
Table 22-1	Funding Mechanisms for Capacity Building
Table 25-1	Ekiti Renewable energy resource summary
Table 25-2	off-grid Dataset Indicators for Ekiti LGAs
Table 25-3	infrastructure data for off-grid LGAs in Ekiti
Table 25-4	Energy Access, Infrastructure & Demand of Off-Grid LGAs in Ekiti
Table 27-1	Bankable renewable energy projects in Ekiti state
Table 29-1	Project-specific risk mitigation strategies
Table 31-1	Identified policy gaps
Table 32-1	Strategic policy recommendations
Table 33-1	Data-informed policy considerations
Table 34-1	Policy support instruments
Table 37-1	Ekiti State Electricity Market Implementation Roadmap
Table 37-2	Federal vs. State Roles in Ekiti State Electricity Market Operations

ABBREVIATIONS

AfDB	African Development Bank
AFD	Agence Française de Développement
AFUR	African Forum for Utility Regulators
AMI	Advanced Metering Infrastructure
AT&C	Aggregate Technical & Commercial (losses)
ATC&C	Aggregate Technical, Commercial & Collection Losses
BMGF	Bill & Melinda Gates Foundation
BOI	Bank of Industry
CAPEX	Capital Expenditure
CBOs	Community-Based Organizations
CIF	Climate Investment Funds
CoS	Cost-of-Service
COU	Cluster Offtake Unit
COUs	Community Electricity Cooperatives / Cluster Offtake Units
CSOs	Civil Society Organizations
CSR	Corporate Social Responsibility
CTF	Clean Technology Fund
DER	Distributed Energy Resources (e.g., solar, batteries, EVs)
DERMS	Distributed Energy Resource Management System
DFIs	Development Finance Institutions
DFI	Development Finance Institution
DisCos	Distribution Companies
DSM	Demand-Side Management
EA 2023	Electricity Act 2023
E-CEIRE	Ekiti Centre for Energy Research, Innovation & Entrepreneurship
E-HEART	Energising Healthcare and Education for Resilience Transformation / Ekiti Health, Education and Rural Technology
EIA/ESMP	Environmental Impact Analysis / Environmental and Social Management Plan



EKEPSL	Ekiti State Electricity Power Sector Law
EKEPSL 2023	Ekiti State Electricity Power Sector Law 2023
EKSERB	Ekiti State Electricity Regulatory Bureau / Ekiti State Electricity Regulatory Board
ESCOs	Energy Service Companies
ESCO	Energy Service Company
ESIA	Environmental and Social Impact Assessment
ESG	Environmental, Social, and Governance
ESEB	Ekiti State Electricity Board
ESEMMSD	Ekiti State Electricity Market Standards Department
ESEMCDI	Energy Sector Monitoring and Services Department
ESO	Ekiti System Operator (future market operator)
ESPC	Ekiti State Power Company / Ekiti State Power Company Limited
ESET-CDI	Ekiti State Electricity Training and Capacity Development Institute
FPIC	Free, Prior, and Informed Consent
GCF	Green Climate Fund
GEAP	Gender Equality Action Plan
GEF	Global Environment Facility
Gencos	Generation Companies
GESI	Gender and Social Inclusion
GIS	Geographic Information System
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
HR	Human Resources
HVDC	High Voltage Direct Current
ICT	Information and Communication Technology
IEDNOs	Independent Electricity Distribution Network Operators
IPPs	Independent Power Producers
IPP	Independent Power Producer

ITF	Industrial Training Fund
KPIs	Key Performance Indicators
kWh	Kilowatt-hours
LGAs	Local Government Areas
LGA	Local Government Area
LV	Low Voltage
M&E	Monitoring and Evaluation / Monitoring & Evaluation
MAP	Meter Asset Provider
MDAs	Ministries, Departments and Agencies
MIPU	Ministry of Infrastructure and Public Utilities
MoU	Memorandum of Understanding
MTL	Mobile Training Labs
MTN Founda- tion	MTN Foundation
MVA	Mega Volt Ampere
MW	Megawatt
MYTO	Multi-Year Tariff Order
NABTEB	National Business and Technical Examinations Board
NAPTIN	National Power Training Institute of Nigeria
NARUC	National Association of Regulatory Utility Commissioners
NERC	Nigerian Electricity Regulatory Commission
NESI	Nigerian Electricity Supply Industry
NEP	National Electrification Project / Nigeria Electrification Project
NGO	Non-Governmental Organization
NISO	Nigerian Independent System Operator
NSIA	Nigerian Sovereign Investment Authority
NYSC	National Youth Service Corps
O&M	Operations and Maintenance



OPDL	Olokiti Power Distribution Limited
PAYGo	Pay-As-You-Go
PIPs	Performance Improvement Plans
PPAs	Power Purchase Agreements
PPA	Power Purchase Agreement
PPPs	Public-Private Partnerships
PPP	Public-Private Partnership
PV	Photovoltaic
RBF	Results-Based Financing
RE	Renewable Energy
REA	Rural Electrification Agency
REF	Rural Electrification Fund
RESIP	Rural Electrification Strategy and Implementation Plan
REZs	Renewable Energy Zones
ROA	Return on Assets
SAIFI/CAIDI	System Average Interruption Frequency Index / Customer Average Interruption Duration Index
SAPZ	Special Agro-Processing Zone / Special Agro-Industrial Processing Zone
SCADA	Supervisory Control and Data Acquisition
SDG	Sustainable Development Goal
SEforALL	Sustainable Energy for All
SHS	Solar Home System
SLA	Service Level Agreement
SLAs	Service Level Agreements
SME	Small and Medium-sized Enterprises
SREP	Scaling-Up Renewable Energy Program
STEM	Science, Technology, Engineering, and Mathematics
T&D	Transmission and Distribution



TCN	Transmission Company of Nigeria
TVET	Technical and Vocational Education and Training
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
USTDA	United States Trade and Development Agency
VGF	Viability Gap Funding
WB	World Bank
WIEN	Women in Energy Network
WTE	Waste-to-Energy
YECF	Youth Energy Corps Program

Executive Summary

The Ekiti State Electricity Priority Plan and Implementation Roadmap (SEPP-IR) builds directly on the findings of the Ekiti State Electricity Market Diagnostic Report (June 2025), which assessed the legal, institutional, infrastructure, and market realities of the electricity sector in Ekiti State. While the Diagnostic Report identified systemic gaps and opportunities across supply, metering, regulation, and investment, the SEPP-IR outlines a comprehensive action plan to operationalize electricity sector reform through six interlinked focus areas. Thus, the SEPP-IR report has been delivered in six sections, and they together constitute the foundation for a modern, inclusive, investor-friendly electricity market under the authority of Ekiti State's Electricity Power Sector Law (EKEPSL), 2023. Highlights of the sections are discussed subsequently.



Section 1: Business Models for Electricity Franchising in Ekiti State

This section outlines five integrated franchise-ready business models designed to drive investment, improve access, and increase efficiency across the electricity value chain. Aligned with the phased market development strategy proposed in the Diagnostic Report, these models include:



Independent Power Producers (IPP): For grid-connected generation, especially renewable energy, with long-term PPAs.



Mini-Grid Operators: For off-grid and under-grid communities using decentralized, clean energy.



Energy Service Companies (ESCOs): For efficient metering, billing, customer engagement, and loss reduction.



Integrated Transmission & Distribution Franchise: For managing grid infrastructure and enabling open access and DER integration.



Cluster Offtake Units (COUs): For localized retail aggregation, demand coordination, and service delivery.

Each model is analysed using a Business Model Canvas (BMC), detailing its value proposition, key activities, partnerships, revenue streams, and risks. This modular architecture enables scalable,

private sector-led growth in Ekiti's electricity market.

Section 2: EKSERB Business Plan and Operational Manual

Informed by institutional gaps identified in the Diagnostic Report, this section provides a complete business and operational framework for the Ekiti State Electricity Regulatory Bureau (EKSERB). It includes:

- ▶ A functional organizational structure and staffing plan.
- ▶ Defined licensing, monitoring, and enforcement functions.
- ▶ Key regulatory instruments (tariff orders, service quality codes, open-access rules).
- ▶ Revenue projections, funding models, and accountability measures.
- ▶ Frameworks for institutional collaboration with ESPC, COUs, MDAs, and national agencies.
- ▶ The plan aims to transition EKSERB from a fledgling regulator to a credible, independent institution with full operational autonomy.

Section 3: Sustainable Capacity Building Framework for Ekiti State Electricity Market

This section addresses the capacity constraints outlined in the Diagnostic Report by presenting a comprehensive plan to develop a skilled electricity sector workforce. It includes:

- ▶ Strategic objectives and vision for human capital development.
- ▶ Proposed partnerships with institutions such as NAPTIN, TVETs, and local universities.
- ▶ Introduction of the Ekiti State Electricity Training & Capacity Development Institute (ESET-CDI).

- ▶ A phased roadmap for training programs in policy, regulation, mini-grid systems, solar PV, metering, and battery storage.
- ▶ Gender and social inclusion targets and community engagement strategies for long-term sustainability.

Section 4: Pipeline of Bankable Renewable Energy Projects in Ekiti State

In response to the untapped potential identified in the Diagnostic Report (338 MW solar, 270 MW hydro, 4,829 MW biomass), this section presents a curated list of investable renewable energy projects. Highlights include:

- ▶ A market overview of demand, supply deficits, and project financing needs.
- ▶ Funding archetypes (e.g., concessional loans, PPPs, grants) and potential investors (AfDB, REA, World Bank).
- ▶ A detailed project pipeline table with capacity, location, technology, funding requirements, and expected impact.
- ▶ Project-specific risk and mitigation profiles, and partnership opportunities.

This pipeline is a ready tool to catalyse private sector participation and secure climate-aligned financing.

Section 5: Policy Gaps and Strategic Policy Options for Ekiti State Electricity Market

This section analyses the structural and procedural gaps in Ekiti's current legal and policy framework, many of which were flagged in the Diagnostic Report. It proposes:

- ▶ Clarifications to the regulatory authority and autonomy of EKSERB.
- ▶ Design of market-enabling policies such as tariff methodology, net metering, open access, and dispute resolution.
- ▶ Data-informed policymaking mechanisms and policy support instruments.
- ▶ Strategic reforms to promote gender, social, and environmental safeguards,



consistent with global regulatory benchmarks.

It provides a flexible but actionable policy toolkit to guide continuous improvement of the state's electricity market governance.

Section 6: Implementation Roadmap for Ekiti State Electricity Market

The final section consolidates all proposed reforms into a time-bound roadmap spanning 2025 to 2030. Key components include:

- ▶ A phased implementation matrix showing activities, responsible agencies, timelines, budgets, and expected outcomes.
- ▶ A market flowchart showing the transition from a transitional hybrid structure to a competitive, decentralized electricity market.
- ▶ A robust Monitoring & Evaluation (M&E) framework with KPIs tied to service quality, access, and financial performance.
- ▶ Funding mechanisms leveraging federal transfers, development financing, and state-private partnerships.

This roadmap offers Ekiti State and its partners a shared blueprint for coordinated execution and accountability.

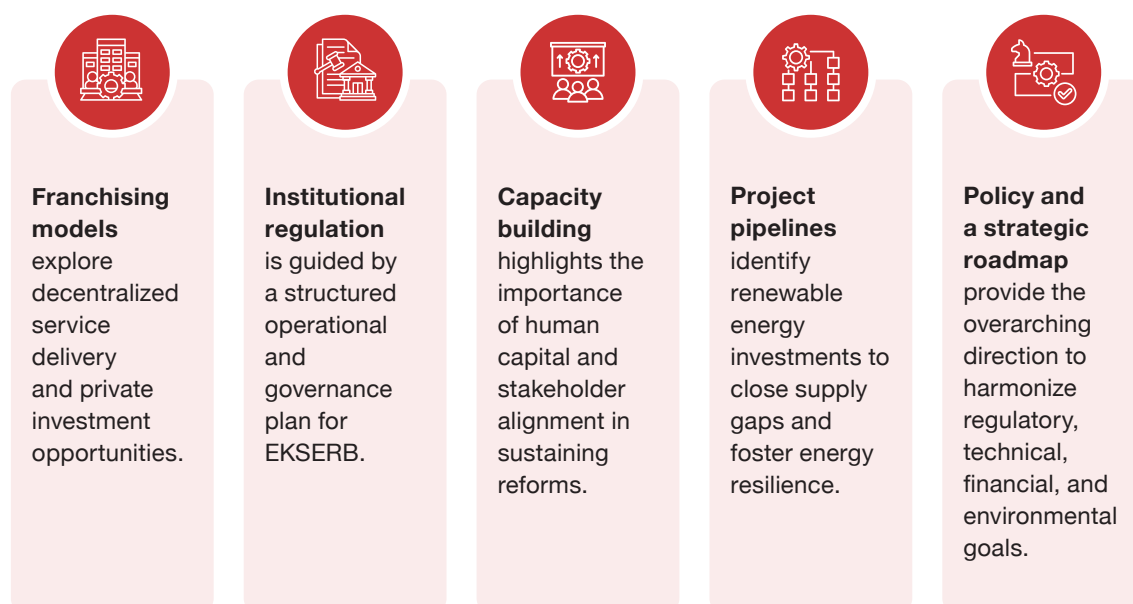
It is important to note that the SEPP-IR report is designed to be used alongside the Ekiti State electricity market diagnostic report, which is a key deliverable developed under this project. The diagnostic report was developed ahead of the SEPP-IR and provided a background and context for the SEPP-IR to ensure its relevance to the development of the Ekiti State electricity market. The SEPP-IR is the operational engine behind Ekiti's electricity market reform. It connects high-level diagnostics to practical implementation through structured business models, institutional development, capacity-building, investment planning, policy reform, and time-bound action plans. With strong political will, regulatory clarity, and private sector alignment, Ekiti State is poised to become a national model for subnational electricity market development in Nigeria.

1 Introduction

Ekiti State stands at a pivotal moment in its electricity sector transformation, catalysed by the enactment of the **Ekiti State Electricity Power Sector Law (EKEPSL) 2023** and the broader decentralisation of electricity regulation under Nigeria's **Electricity Act 2023**. This shift grants Ekiti the authority and responsibility to build a modern, inclusive, and sustainable electricity market from the ground up. The reform agenda is rooted in a commitment to improving access, reliability, and efficiency of electricity supply through strategic regulation, private sector participation, and innovative service delivery models.

This consolidated report brings together key foundational documents that collectively chart the path toward achieving Ekiti State's energy ambitions. It outlines practical business models for electricity franchising across the value chain, a detailed business plan and operational manual for the newly established Ekiti State Electricity Regulatory Bureau (EKSERB), a strategic framework for sustainable capacity building, a pipeline of bankable renewable energy projects, and a unified long-term roadmap for electricity market development.

Each section of this report addresses a critical pillar of market development:



Each of these pillars have been developed in response to the gaps and recommendations identified in the diagnostic report which was developed ahead of this report. Thus, for a complete picture of the project and how it has evolved to this point, the SEPP-IR report, it is important to use this report alongside the diagnostic report. The diagnostic report provides the background on Ekiti State, the state of electricity demand and supply, the institutional arrangements, the policy and legal framework and capacity gaps to deliver an electricity market for Ekiti State. The SEPP-IR can only be well appreciated through the lens of the diagnostic report.

Section

01



Business Models for Electricity Franchising in Ekiti State



2 Business Model Portfolio Structure

The five distinct franchise business models proposed target different segments of the electricity value chain. The Independent Power Producer (IPP) Franchise Model addresses generation needs, while the Mini-Grid Operator Franchising Model serves off-grid areas. The Energy Service Company (ESCO) Franchise Model focuses on distribution services improvement, and the Integrated Transmission & Distribution Franchise with Open Access provides comprehensive grid management. Finally, Cluster Offtake Units (COUs) enable localised retail operations through either cooperative or municipal ownership structures.

These models are selected to complement each other, forming an integrated solution that addresses Ekiti's multifaceted electricity challenges. As the market evolves through the phases outlined in the Diagnostic Report, these business models provide the operational flexibility to adapt to changing market structures while maintaining service continuity.



2.1 Aligning Proposed Business Models with Market Development Phases

This Business Model Report builds upon the SEPP-IR Diagnostic Report, which recommends a phased approach to electricity market evolution in Ekiti State. The five franchise business models presented in this report can support and enable the three-phase market development trajectory outlined in the Diagnostic Report. The following table illustrates the correspondence between the market development phases and the proposed business models:



Market Development Phase	Phase Characteristics	Enabling Business Models & Roles
Phase 1: Transitional Competitive Market	The market is activated through a hybrid structure blending early-stage competition with vertically integrated operations, through Ekiti State Power Company - ESPC (Regulated monopoly model with franchised distribution and open access to traders/ ESCos). Essentially, ESPC to operate as the monopoly distribution licensee with sub-franchise to other operators (e.g., BEEL, EKEDC, OPDL). In this model government facilitates infrastructure development via partnerships with asset owners and plays a leading role in project initiation. Pilot generation and retail competition are permitted in high-demand clusters, while the Nigerian Independent System Operator (NISO) continues to coordinate dispatch. Licensing and regulatory functions are led by EKSERB, and projects will be aligned to the Integrated Resource Plan (IRP) developed by the state. Market structure is flexible, with various models tested for relevance and scale.	Model A (IPP Franchise)
		- Provide embedded generation under bilateral contracts with COUs or legacy DisCos; anchor private sector participation.
		Model B (Mini-Grid Operators)
		- Expand access in off-grid or edge-of-grid areas
		Model C (ESCO Franchise Model)
		- Begin rollout of metering, billing, and customer service in pilot clusters; test energy efficiency and collection systems.
		Model D (Integrated T&D Franchise with Open Access)
		- Partner with TCN, state, and licensed entities to accelerate T&D expansion and lay groundwork for future SLA-based operations.
		Model E (Cluster Offtake Units (COUs))
		- Serve as proto-retailers; purchase power from IPPs and deliver to end-users under supervised contracts

Market Development Phase	Phase Characteristics	Enabling Business Models & Roles
Phase 2: Competitive Generation and Retail with Open Access	Full competition in generation and retail is introduced, allowing IPPs and retailers to contract directly with consumers or franchise aggregators. Transmission and distribution assets remain state-owned but are operated by licensed private entities under strict service-level agreements. Open access rules are enforced by EKSERB, enabling power wheeling across franchise boundaries. Advanced Metering Infrastructure (AMI) and digital platforms support consumer switching and transparent billing. Grid codes and performance benchmarks for reliability and loss reduction are institutionalised.	Model D (Integrated T&D Franchise with Open Access) - Operate grid under SLA - Enable wheeling & Distributed Energy Resources (DER) e.g., solar, batteries, EVs integration - Maintain infrastructure and customer access
		Model C (ESCO Franchise) - Provide metering, billing & energy management - Reduce technical and commercial losses - Improve transparency and trust
		Model E – (Cluster Offtake Units (COUs)) - Aggregate demand at cluster level - Interface with IPPs, ESPC - Manage retail service and payment compliance
		Model B – (Mini-Grid Operator Franchising Model) - Serve off-grid or under-grid areas - Offer clean, localised power - Act as DER (Distributed Energy Resources) inputs into the larger system
		Model A- (Independent Power Producers (IPPs) Franchise Model) - Compete to generate power - Sign PPAs with COUs, ESPC - Provide reliable supply to clusters



Market Development Phase	Phase Characteristics	Enabling Business Models & Roles
Phase 3: Full State Market Operation	A decentralised electricity market is fully operational, with autonomous dispatch, dynamic pricing, and transparent wholesale electricity trading. An Ekiti System Operator (ESO) manages local grid operations, dispatch, and system balancing in real time. A day-ahead spot market allows GenCos to bid for dispatch based on price and availability, ensuring cost-effective power procurement. Ancillary service markets (frequency control, reserves) are developed to enhance grid reliability and local balancing. Full customer choice is enabled in urban and peri-urban areas, supported by data infrastructure, SCADA systems, and evolved Energy Service Companies (ESCOs).	Model A – (IPP Franchise Model)
		- Compete in day-ahead market; respond to price signals; deliver contracted and spot-based generation.
		Model B – (Mini-Grid Operator Model)
		- Participate in ancillary service markets (e.g., voltage support, reserves); feed excess into grid; support real-time balancing.
		Model C – (ESCO Franchise Model)
		- Evolved into full-service energy providers offering dynamic pricing, load control, switching platforms, and energy efficiency services.
		Model D - Integrated T&D Franchise with Open Access)
		- Collaborate with System Operator(s) to maintain system stability; implement real-time data flows, manage congestion, enable wheeling for market transactions.)
		Model E – (Cluster Offtake Units (COUs))
		- Serve as community-level market access points; manage customer switching, data collection, and interface with ESCOs.

2.2 Document Structure and Approach

This document provides a detailed analysis of each model using a Business Model Canvas approach, examining value propositions, customer segments, activities, revenue streams, resources, channels, customer relationships, partnerships, and cost structures. The proposed models prioritise sustainability and private investment while protecting consumers through regulation and community engagement,

drawing from international case examples that illustrate how similar approaches have succeeded in developing economies. Each business model section includes specific references to how it supports the phased market development approach, ensuring readers can trace the connection between operational implementation and strategic market evolution. This alignment ensures that investments in specific business models contribute to the broader goal of establishing a sustainable, competitive, and inclusive electricity market in Ekiti State.

3 Franchising Site Selection and Delineation

3.1 Site Selection Criteria

The selection process of franchise sites forms the cornerstone of successful electricity franchising implementation in Ekiti State. The primary criteria for site selection have been developed through analysis of multiple factors that determine the viability and potential success of franchising arrangements. Population density serves as a fundamental criterion, with areas of higher concentration offering economies of scale for infrastructure investment and service delivery. The economic activity level within potential franchise zones provides critical insight into the revenue generation potential and sustainability of operations. Areas with robust commercial and industrial activity, such as Ado-Ekiti, present immediate opportunities for franchising success due to their higher electricity demand and greater ability to pay for reliable services.

Infrastructure readiness assessment evaluates the existing electricity infrastructure's condition and capacity to support franchising operations. This includes analysis of distribution networks. Areas with relatively developed infrastructure

require lower initial capital investment, making them attractive for early-phase franchising implementation under a single operator (Ekiti Power Company). The availability of renewable energy resources is also an increasingly important criterion, particularly for mini-grid and distributed generation models. Areas with strong solar irradiation, viable mini-hydro potential, or biomass resources offer opportunities for sustainable and cost-effective electricity generation solutions. Demand cluster analysis identifies concentrated areas of electricity consumption that can anchor franchise operations. Key clusters identified include Ado-Ekiti as the primary urban centre, Ikole as a secondary urban hub with agricultural processing potential, and the Special Agro-Processing Zone (SAPZ) as an industrial anchor customer base.

The selection process will also incorporate regulatory compliance with Ekiti State's energy policies and Law, ensuring alignment with national electrification targets. Financial viability assessments include evaluating cost-recovery mechanisms and potential subsidies for rural

areas. Social equity considerations prioritise underserved communities, while risk mitigation strategies address electricity theft and grid reliability. Additionally, environmental impact studies ensure sustainable development, and stakeholder consultations with local governments guarantee community buy-in.

The selection of franchise sites is critical for implementing a competitive and sustainable electricity market in Ekiti State. The criteria prioritise viability, equity, and integration with the proposed single distribution operator and multi-retailer model. Key factors include:

- 1 **Demand & Economic Viability**
 - ▶ Population Density: High-density areas (e.g., Ado-Ekiti) ensure economies of scale for infrastructure rollout.
 - ▶ Economic Activity: Commercial/industrial hubs (e.g., SAPZ, Ikole) offer stable revenue streams due to higher demand and payment capacity.
- 2 **Infrastructure Readiness**
 - ▶ Existing grid conditions (33kV/11kV lines, substations) are assessed to minimise upfront costs.
 - ▶ Priority is given to areas where upgrades align with the single distribution operator's rehabilitation plan
- 3 **Renewable Energy Potential**
 - ▶ Solar/mini-hydro resources are mapped to support hybrid mini-grids, reducing reliance on centralised grids.
- 4 **Equity & Risk Mitigation**
 - ▶ Underserved rural communities are included with cross-subsidy mechanisms. Anti-theft measures (smart metering, community engagement) are integrated.

3.2 Distribution Asset & Service Delineation

To enable competition, delineation occurs at two levels:

- 1 **Distribution Infrastructure (Single Operator)**
 - ▶ All assets (33kV/11kV/0.415kV lines, substations) are consolidated under one distribution licensee (Ekiti Power Company) a Regulated monopoly model with sub-franchised distribution and open-access to traders (ESCOs). Sub-franchisees to be BEEL, EKEDC, OPDL.
 - ▶ A centralised geospatial inventory document:
 - o Asset conditions, capacity gaps, and priority upgrades.
 - o Customer enumeration to baseline demand.
- 2 **Energy Service Company (ESCO) Zones**
 - ▶ Cluster Offtake Units (COUs): Geographic/economic clusters (e.g., Ado-Ekiti LGA, SAPZ) are assigned to ESCOs via competitive bidding.
 - ▶ Metering & Accountability: Each ESCo deploys metering infrastructure for:
 - o Transparent energy accounting.
 - o Dynamic demand profiling (e.g., seasonal Agro-processing loads in Ikole).

3

Open-Access Framework

- ▶ ESCos compete to serve COUs but share the same distribution network.
- ▶ Regulatory safeguards prevent cherry-picking and ensure rural electrification.

3.3 Boundary And Bulk Metering

The implementation of comprehensive boundary and bulk metering systems represents a critical enabler for successful franchising operations. This infrastructure provides the foundation for accurate energy accounting, loss identification, and performance monitoring across franchise boundaries. Metering at energy entry points to Ekiti State establishes the baseline for total electricity available within the state system. These bulk meters, installed at interfaces with the national grid and any cross-border connections, provide real-time data on electricity imports and enable accurate system-wide energy balancing. COU boundary metering creates clear demarcation points between franchise zones and enables precise measurement of electricity flows between different operational areas. This metering infrastructure supports accurate billing between franchisees, identification of technical and commercial losses within specific zones, and performance benchmarking across different franchise operators.

The boundary metering system incorporates advanced metering infrastructure (AMI) capabilities, including remote reading, tamper detection, and real-time data transmission. This technology platform provides the data foundation for effective franchise management and regulatory oversight, enabling operators to track performance metrics and regulators to ensure compliance with service standards.

4 Business Model Recommendations For Ekiti State Electricity Market.

The Ekiti State electricity market reform proposes five complementary business models tailored to address the state's critical electricity access, reliability, and efficiency gaps. These models align with the phased development strategy of the Ekiti State Electricity Power Sector Law (EKEPSL, 2023) and reflect global best practices adapted to local conditions. Together, they enable a decentralized, inclusive, and investor-friendly electricity market, offering a scalable framework for subnational electricity reform in Nigeria. The following is a highlight of the proposed business models while the details of each business model are provided in a Business Model Canvas (BMC), with one BMC dedicated to each model.



1. Independent Power Producer (IPP) Franchise:

This business model focuses on grid-connected generation (renewable and conventional). The IPP provides bulk electricity via long-term Power Purchase Agreements (PPAs) with Energy Service Companies (ESCO) and private off-takers who serve Cluster Offtake Units (COUs). The IPP franchise supports generation expansion across all market phases and promotes investment in solar, hydro, and biomass energy. The IPP models are the traditional electricity generation service models in operation in the Nigeria Electricity Supply Industry (NESI) and other electricity markets across the globe.



2. Mini-Grid Operator Franchise:

This is usually an off-grid and under-grid rural electrification using localized clean energy solutions. They deliver reliable electricity to underserved communities using the Anchor-Business-Community (ABC) model. They are well suited to primarily engage in expansion of electricity access in Phase 1 of the Ekiti State electricity market development and integrate into DER-based ancillary services in Phase 3 of the market development. Mini-grid operators are now globally recognized as key players in universal access to electricity efforts.



3. Energy Service Company (ESCO) Franchise:

Their focus is on metering, billing, demand-side management, and loss reduction. They play a key role in enhancing electricity distribution efficiency and customer service through smart metering and tailored engagement. They are pivotal to achieving commercial viability and

retail efficiency across all phases of the Ekiti electricity market development, evolving into full-service providers. This business model is well tested and commonly found in U.S. and EU where they focus on energy performance contracting.



4. Integrated Transmission & Distribution (T&D) Franchise with Open Access:

This business model is considered the backbone of the grid providing services of grid modernization, SCADA integration, and wheeling for multiple generators and retailers. Their main role in the market is to enable market competition, DER integration, and improved grid reliability. This business model is a critical enabler in Phases 2 and 3 of the Ekiti State market development for open-access, dynamic pricing, and real-time dispatch. This business model is central to successful electricity market reforms in countries similar to Ekiti State like Vietnam and India



5. Cluster Offtake Units (COUs):

They undertake community-based aggregation of electricity demand and local retail operations and act as intermediary retailer, interfacing with generators and end-users while ensuring local service delivery. In the Ekiti market development process they play the role of proto-retailers in Phase 1, and full market participants managing switching and billing in Phase 3. This franchise models are provided in the Ekiti State electricity bill and aligns with global examples in Bangladesh (PBS) and U.S. rural electric co-ops.

These business models are interlinked to form a holistic electricity market architecture where IPPs and Mini-Grids generate power, T&D Franchises ensure efficient delivery and grid stability, and ESCOs and COUs manage local retail and

customer interface. All models are coordinated under a phased market plan, from transitional hybrid markets to full competition and open access, enabling operational flexibility, regulatory oversight, and inclusive growth. By adapting proven global models to local context and embedding environmental, social, and gender safeguards, Ekiti's electricity franchising plan offers a robust blueprint for private sector participation in Ekiti State's evolving electricity market.

4.1 Model A - Independent Power Producers

Table 4-1 Model A - Independent Power Producers

Value Proposition	Key Activities	Key Resources	Key Partnerships	Customer Relationships
- Reliable bulk power to meet baseload/peak demand - Bridge 548 MW supply gap (569 MW demand vs 21 MW grid supply) - Access untapped renewable potential: 338 MW solar 270 MW hydro 4,829 MW biomass - Competitive tariffs via long-term PPAs - Investment incentives: 7-year tax holidays 99-year land leases - Duty rebates & capital allowances	- Design, finance, build & operate plants - Secure fuel/energy resources - Grid integration & stability compliance - PPA negotiation & management - Obtain regulatory permits (EKSERB licensing) - Environmental/social impact assessments - Plant O&M optimisation - Real-time dispatch coordination	- Physical: - Generation assets (solar panels, turbines, substations) - High solar irradiance (5.5-7 kWh/m²/day) 132kV transmission infrastructure - Land with grid interconnection - Human: - Technical engineers & operators - Trained O&M workforce - Financial: - Capital access (equity + debt) - Generation licenses & signed PPAs	- Government: - Ekiti State Power Company - EKSERB (licensing, tariffs) - ESEB/MIPU (policy support) - Rural Electrification Agency - Technical: - EPC/O&M contractors - Technology providers - Fuel suppliers (thermal) - Financial: - AfDB, World Bank (guarantees) - Banks/DFIs (project finance) - Commercial: - Off-takers (ESPC, COUs) - Meter Asset Providers	- Long-term PPAs (15-20 years) - Service Level Agreements: 90% availability guarantees - Outage notification protocols - Key account management - Regular performance reporting - Payment security mechanisms: - Escrow accounts - Partial Risk Guarantees - Community engagement programs



		Target Customers • Ekiti State Power Company (ESPC) • Cluster Offtake Units (COUs)	
Revenue Streams	Channels	Cost Structure	
• Power Purchase Agreements: ◦ Energy payments (per kWh) ◦ Capacity charges (fixed availability) • Feed-in Tariffs (renewable) • Ancillary services (grid support) • Carbon credits • Take-or-pay arrangements • Government subsidies (RBF, VGF) • Tariff escalation (fuel/forex indexing)	• Direct grid injection (33kV substations) • Dedicated feeders to anchor clients • Competitive tender processes • B2B contractual negotiations • Online energy scheduling platforms	• Capital Costs: ◦ Generation equipment & civil works ◦ Grid connection infrastructure • Operating Costs: ◦ Fuel ◦ Staff salaries & routine maintenance ◦ Spare parts & consumables • Financial Costs: ◦ Debt service & equity returns ◦ Insurance premiums ◦ Legal/regulatory compliance ◦ Environmental monitoring	

4.2 Model B: Mini-Grid Operator

Table 4-2 Model B: Mini-Grid Operator

Value Proposition	Key Activities	Key Resources	Key Partnerships	Customer Relationship
- Clean, reliable electricity to off-grid communities - Transform quality of life & economic opportunities - Prepaid metering with 95% billing efficiency - Cheaper than diesel/kerosene alternatives - Enable productive uses: - Extended business hours - School lighting & healthcare refrigeration - Micro-enterprise development “ABC Model” - Anchor-Business-Community approach	- Site selection & community engagement - System design & installation: - Generation units (solar/hydro) - Local distribution networks - Customer connections - Operations & Maintenance: - Daily system management - Battery health monitoring - Line fault repairs - Metering & billing: - Prepaid system management - Mobile payment integration - Usage monitoring	- Physical: - Solar PV panels/batteries - Hydro turbines/generators - Distribution poles, wires, transformers - Prepaid meters & smart monitoring - Land/water access - Human: - Trained local technicians - O&M teams & meter readers - Customer service reps - Financial: - Capital funding (grants/loans) - Working capital reserves - Social: - Community relationships & trust	- Government: - REA (E-HEART program support) - Ekiti Rural Electrification Unit - Local Government Areas (land access) - Traditional leaders - Financial: - AfDB/World Bank (NEP funding) - Development agencies (grants/subsidies) - Technical: - Technology suppliers (solar/battery) - Smart meter providers (e.g., Odyssey) - ENGIE Energy Access (“mini-grid in a box”) - Community: - Village Energy Committees - Local CBOs	- Community-based service contracts - Village Electricity Committees - Local customer service presence: - Quick outage response - Face-to-face troubleshooting - Payment plan flexibility - Customer education programs: - Safe wiring practices - Productive use demonstrations - Regular community meetings - Transparency in operations & costs - Social pressure for payment compliance



	• Customer education & productive use promotion • Regulatory compliance & reporting	Target Customers • Rural households (300+ homes/village) ◦ Basic lighting, fans, TV • Small businesses: ◦ Grain mills, workshops, retail shops • Rural institutions: ◦ Schools, health clinics, water pumps • Anchor clients: ◦ Telecom towers, processing facilities • Geographic scope: ◦ Villages/farm settlements	
Revenue Streams	Channels	Cost Structure	
• Electricity tariffs: ◦ mini-grid rates ◦ Monthly service fees • Connection charges (one-time) • Government support: ◦ E-HEART counterpart funding ◦ Capital subsidies - Viability gap funding ◦ Anchor client contracts (fixed monthly) ◦ Value-added services: - Appliance sales/financing - Phone charging, cold storage	• Local distribution networks • Prepaid meter systems • Mobile money platforms (USSD/SMS) • Local vendor networks (token sales) • Community service centres • Village meetings & liaisons • Digital apps for account management	• Capital Costs: ◦ Mini-grid (scale dependent) ◦ Generation equipment ◦ Distribution infrastructure ◦ Per household connection • Operating Costs: ◦ Staff salaries (local teams) ◦ System maintenance ◦ Battery replacement (5-8 years) ◦ Fuel for hybrid systems ◦ Customer acquisition ◦ Community engagement activities • Other Costs: ◦ Software/licensing fees ◦ Insurance & security ◦ Currency risk mitigation	

4.3 Model C: Energy Services Company (Esco)

Table 4-3 Model C: Energy Services Company (Esco)

Value Proposition	Key Activities	Key Resources	Key Partnership	Customer Relationships
• Reduce ATC&C losses • Energy efficiency retrofits & audits • Accurate metering & billing transparency • Improved revenue collection & service quality • Faster fault repair & voltage stability • DSM(Demand Side Management) implementation reducing waste • Transform high-loss areas to revenue zones • Personalised customer service	• Energy audits & efficiency retrofits • Metering infrastructure deployment: ◦ Smart metering/AMI implementation ◦ Regular meter reading & inspection • Billing & collection: ◦ Accurate invoice generation ◦ Multi-channel payment collection • Loss reduction: ◦ Technical: Network upgrades, reconfiguration ◦ Commercial: Anti-theft drives, prosecutions • Customer service & complaint resolution • PPA negotiation with GenCos/PPPs • Data management & performance reporting	• Technology: ◦ Smart/prepaid meters & AMI ◦ Energy monitoring software ◦ CRM & billing platforms ◦ Data analytics tools ◦ Handheld meter reading devices • Human: ◦ DSM technical expertise ◦ Energy auditors ◦ Meter technicians & readers ◦ Collection agents • Financial: ◦ Working capital ◦ Access to financing mechanisms ◦ MAP scheme participation	• Regulatory: ◦ EKSERB (licensing, tariff approvals) ◦ NERC (federal oversight) • Energy Supply: ◦ GenCos/PPPs (bulk power PPAs) ◦ Parent utility/ESPC • Technical: ◦ Meter Asset Providers (MAPs) ◦ ICT/software vendors ◦ Energy efficiency equipment suppliers • Financial: ◦ Banks/financial institutions (project financing) ◦ Microfinance for consumer financing • Enforcement: ◦ Local law enforcement (theft cases) ◦ Judiciary (electricity courts)	• Personalised door-to-door service • Transparency through accurate metering • Rapid dispute resolution mechanisms • Energy efficiency advisory: ◦ Conservation workshops ◦ Appliance recommendations • Payment flexibility & plans • Community leader engagement • Regular communication (consumption updates) • “Name & fame” recognition programs • Trust-building through fair enforcement



		Target Customers - Residential consumers: - Metered urban households - Previously unmetered customers - Commercial customers: - Shops, markets, SMEs - Need consumption data & efficiency - Institutional users: - Government offices, schools, hospitals - Street lighting systems - Parent utility (service client)	
Revenue Streams	Channels	Cost Structure	
- Tariffs (Fixed, variable, Time of use, Green) - Whole Sale Market Trading: - Buy bulk at wholesale rates - Sell at regulated tariffs - Performance bonuses: - Loss reduction targets - Collection efficiency gains - Service fees: - Energy savings performance contracts - Energy audits & consulting	- Door-to-door agents (meter reading/collection) - Digital platforms: - Mobile apps & web portals - Mobile money integration - Call centres & hotlines - Local walk-in offices/helpdesks - Payment partner networks - Community forums & meetings - WhatsApp/SMS communication - Field service crews	- Capital Costs: - Meter procurement & installation - Network upgrade equipment - ICT systems deployment - Operating Costs: - Staff salaries (largest component) - Office & communication expenses - Transportation/logistics - Software licensing fees - Bill printing & customer engagement	

- MAP rental income (meter provision)
- Recovered arrears (portion retained)
- Value-added services:
 - o Equipment financing margins
 - o Maintenance contracts
- Additional Revenue Stream
 - o Smart home products.
 - o EV charging packages
 - o Energy storage/export tariffs (for solar panel owners)
 - o Standing Charges: Fixed daily fees covering admin and infrastructure costs.
 - o Exit Fees: Penalties for customers leaving fixed-term contracts early.
 - o Energy storage/export tariffs (for solar panel owners)

- Energy Costs:
 - o Bulk power purchases
 - o Technical loss coverage
 - o Bad debt provisions
 - o Legal/enforcement expenses
 - o Working capital requirements
 - o Regulatory compliance



4.4 Model D: Integrated Transmission & Distribution Franchise with Open Access

Table 4-4 Model D: Integrated Transmission & Distribution Franchise with Open Access

Value Proposition	Key Activities	Key Resources	Key Partnerships	Customer Relationships
- Grid modernisation reducing ATC&C losses - Integrated T&D control (33kV to LV) - Smart grid with SCADA/IoT/AI - Open-access infrastructure enabling: - Multiple suppliers/generators - Customer choice & competition - DER (Distributed Energy Resources) integration capabilities - Predictive maintenance & self-healing - Expanded access to underserved areas - Mini-TCN plus DisCo for Ekiti	- Grid operation & control: - Real-time monitoring/dispatch - Load balancing & frequency control - Infrastructure management: - Predictive/preventive maintenance - Network expansion planning - DER integration: - DERMS (Distributed Energy Resources Systems) platform operation - Solar/battery/EV coordination - Smart grid services: - Demand response programs - Voltage optimization	- Physical: 132/33/11kV infrastructure - Substations & transformers - Network Control Centre - SCADA/DER management platforms - Technology: - AI/IoT monitoring systems - GIS mapping & analytics - Cybersecurity infrastructure - Smart grid automation - Human: - Control room operators - IT specialists & engineers - Emergency response crews - Financial: - Capital access - Concession rights	- Infrastructure: - TCN (transmission coordination) - ESPC - State government (PPPs) - Regulatory: - ESEB/EKSERB compliance - Market operators - Technical: - System operators (IET-NOs/IEDNOs) - Technology vendors (SCADA/AI) - Research institutions - Commercial: - IPPs & DER aggregators - Financial institutions - Insurance partners - Emergency: - Local government	- Regulated Service Level Agreements: - Max outage hours/year - Voltage quality standards - Compensation for failures - Automated systems: - Real-time outage alerts - Restoration confirmations - Usage analytics - Reliability guarantees: - Premium service tiers - Priority restoration options - Neutral facilitator (open access) - Stakeholder engagement: - Public consultations - Performance reporting - CSR initiatives

	- Market facilitation: - Energy scheduling/settlement - Wheeling arrangements - TCN coordination (grid interfaces)	Target Customers - Power generators/IPPs (grid access) - COUs (bulk supply at boundaries) - Urban/commercial hubs - Industrial zones & clusters - End consumers (all categories) - DER aggregators (grid services)	Disaster response teams
Revenue Streams	Channels	Cost Structure	
- Network usage fees (Tous & Duos): - Connection fees: - New connections & upgrades - Service drops & testing - CAPEX recovery via tariffs - Ancillary services: - Capacity/voltage support - Grid balancing services - DER integration fees - EV charging infrastructure - Performance incentives: - Loss reduction bonuses - Reliability improvements	- Grid dispatch centres - Digital energy platforms: - Customer apps/portals - Consumption dashboards - DER transaction marketplaces - Physical grid connections: 33kV IPP injection points - COU boundary meters - Mobile workforce systems - Automated outage notifications - Stakeholder forums/reports	- Capital Investment: - Initial outlay - Grid rehabilitation & upgrades - SCADA/IT system deployment - Smart meter rollout - Operations: 24/7 control centre staffing - Routine maintenance - Cybersecurity & IT maintenance - Fleet & communications - Energy Costs: - Technical loss coverage - Pass-through bulk power (if retail) - Financial: - Debt service & returns - Insurance premiums - Technology licensing - Regulatory compliance	



4.5 MODEL E: CLUSTER OFFTAKE UNITS (COUS)

Table 4 5 MODEL E: CLUSTER OFFTAKE UNITS (COUS)

Value Proposition	Key Activities	Key Resources	Key Partnerships	Customer Relationships
- Decentralised electricity by/for community - Aggregated demand improves IPP/mini-grid viability - Priority electrification under EKSERB - Tailored local service delivery - Community accountability = better collections - Flexible payment plans (harvest seasons) - Local language support - Social pressure reduces theft/defaults - Bangladesh model: ~100% collection rates	- Demand aggregation & load profiling - Bulk electricity procurement: - Forecast cluster demand - Negotiate PPAs with suppliers - Managing local distribution: - Network maintenance - Transformer management - Small extensions - Customer service: - Meter reading/token vending	- Data & Systems: - GIS-based demand maps - Customer databases/registries - Billing systems (ledgers to apps) - Prepaid meter infrastructure - Physical: - Local distribution networks - Transformers & service wires - Community offices/kiosks - Human & Social: - Community governance structures - Local staff (multi-functional)	- Government: - State Ministry of Infrastructure (cluster registration) - ESPC/main operators (bulk supply) - EKSERB (regulatory compliance) - LGAs & traditional leaders - Technical: - Upstream suppliers (IPPs/grid) - Meter Asset Providers - Other COUs (peer networks) - Financial: - Microfinance institutions - Mobile money operators	- Neighbour-to-neighbour interactions - Community ownership mindset: - Cooperative membership - Shared fate mentality - Transparent operations: - Public financial reporting - Community notice boards - Personalized service: - Know customers by name - Flexible payment arrangements

- o Bill collection (door-to-door)
- o Complaint resolution
- Community engagement:
 - o Village meetings
 - o Energy education
 - o Theft prevention (peer pressure)

- o Social capital & trust
- o Member committees (cooperatives)
- Financial:
 - o Working capital reserves
 - o Member shares/community funds

Target Customers

- Primary (End-users):
 - o Rural households in clusters
 - o Agricultural cooperatives:
 - Cassava processors
 - Farm settlements
 - o Rural commercial clusters:
 - Markets, grain mills

- Community:
 - o Village chiefs/elders
 - o Youth groups
 - o Market associations
 - o NGOs/development agencies

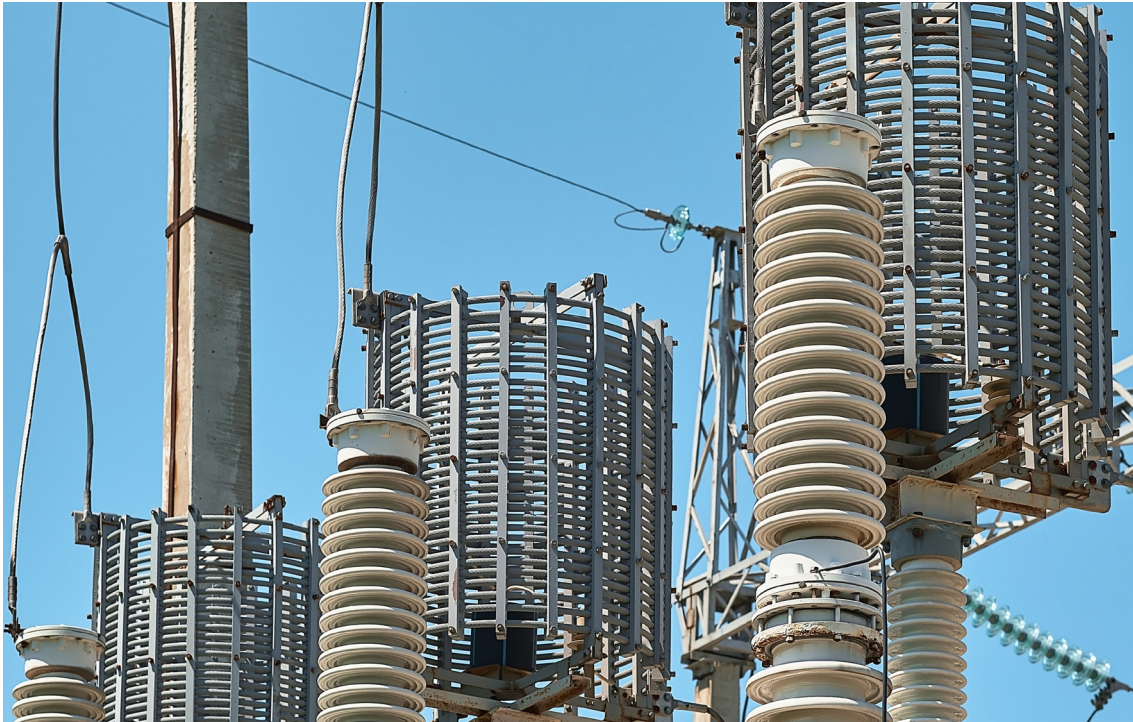
- Education & empowerment:
 - o Meter reading training
 - o Energy conservation tips
- Participatory decisions:
 - o Tariff discussions
 - o Infrastructure investments



		- Small shops, welders - o Community institutions: - Schools, clinics, churches - Water pumping stations • Secondary: - o Anchor clients (telecom towers)	
Revenue Streams	Channels	Cost Structure	
• Retail margin on bulk energy: - o Buy wholesale: ₦20/kWh - o Sell retail: ₦30/kWh - o Margin covers losses & operations • Service fees: - o Connection charges - o Reconnection fees - o Monthly service charges • Government support: - o Electrification fund subsidies	• Physical electricity meters • Mobile platforms: - o SMS billing reminders - o WhatsApp groups - o Mobile money payments • Community service centres • Local vendor networks (tokens) • Village gatherings/forums • Door-to-door agents • Market day presence • Traditional announcements	• Energy Procurement: - o Bulk power purchases (70-80% of costs) - o Must pay suppliers regardless of collection • Operating Expenses: - o Staff salaries (modest, multi-tasking) - o Office rent & utilities - o Transport (staff bikes/fuel) - o Consumables (bill printing)	

- o Per-connection incentives • Value-added services: - o Appliance sales/financing - o Wiring services - o Generator backup premium		• Infrastructure: - o Line repairs & maintenance - o Transformer replacements - o New connection materials - o 5-10% revenue for capital reserves • Administrative: - o Banking & communication fees - o Regulatory compliance - o Community engagement events - o Bad debt provisions (ideally near zero)
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5 General Safeguards and Monitoring



5.1 Environmental Safeguards

The implementation of electricity franchising models requires comprehensive environmental protection measures to ensure sustainable development. Mandatory Environmental and Social Impact Assessments (ESIAs) precede any infrastructure development, identifying potential impacts and mitigation measures. These assessments particularly focus on renewable energy installations, grid extensions through sensitive areas, and generator emissions in urban zones.

Renewable technology guidelines establish standards for equipment selection, installation, and operation. Solar installations must meet efficiency and durability standards while incorporating safe disposal protocols for end-of-life panels and batteries. Mini-hydro developments require careful assessment of water resource impacts and ecosystem preservation. Biomass projects must demonstrate sustainable feedstock sourcing without compromising food security or forest resources.

Emissions monitoring and control protocols apply to all thermal generation facilities, with strict limits on pollutants and greenhouse gases. Regular environmental audits ensure ongoing compliance with standards and identify opportunities for improvement. Climate resilience measures incorporate adaptation strategies into infrastructure design and operation, preparing for extreme weather events and changing environmental conditions.

5.2 Social Safeguards

Social protection measures ensure that electricity franchising delivers equitable benefits across all population segments. Gender equity plans mandate female participation in franchise operations, from leadership positions to technical roles. Specific targets and support programs address historical disparities and create pathways for women's economic empowerment through electricity sector opportunities.

Inclusive consultation processes ensure all community voices influence franchise development and operation. Special efforts reach marginalized groups including persons with disabilities, elderly populations, and economically disadvantaged households. Indigenous communities receive particular attention to respect traditional governance structures and cultural practices.

Community benefit frameworks ensure local populations gain from franchise operations beyond basic electricity access. Local employment requirements prioritize community members for jobs, with training programs building necessary skills. Community development funds financed through franchise fees support broader social infrastructure. Grievance mechanisms provide accessible channels for complaint resolution without fear of service disconnection.

5.3 Monitoring Framework

Comprehensive monitoring systems track franchise performance across technical, commercial, and social dimensions. Monthly reporting to EKSERB covers key performance indicators including system reliability, commercial losses, customer satisfaction, and safety incidents. Digital dashboards provide real-time visibility into system performance, enabling rapid intervention when standards are not met.

Consumer feedback loops incorporate multiple channels for customer input, from SMS surveys to community meetings. Regular customer satisfaction assessments benchmark service quality and identify improvement opportunities. Mystery shopping exercises verify customer service standards and billing accuracy. Social media monitoring captures informal feedback and emerging issues.

Performance benchmarking compares franchise operators against each other and international standards, driving continuous improvement through competitive pressure. Regular audits verify reported data and ensure compliance with franchise agreements. Regulatory scorecards publicly report franchise performance, creating accountability and transparency.

Section

02



**EKSERB Business Plan and
Operational Manual**



7 Ekserb Operational Structure and Staffing Plan

The Ekiti State Electricity Regulatory Bureau (EKSERB) Operational Structure and Staffing Plan outlines the organisational framework, departmental mandates, staffing projections, and compensation guidelines required to operationalise the Bureau in alignment with its statutory responsibilities. Designed to ensure effective regulation, transparency, and stakeholder accountability, the structure is built around seven core departments, each led by a commissioner reporting to the Chairperson of the Bureau. The plan specifies unit functions, recommended staffing levels, pay scales, and qualification criteria to guide recruitment and capacity development. With a strong emphasis on merit-based hiring, gender inclusion, and local talent development, this plan provides a foundational roadmap for establishing a technically competent and institutionally robust electricity regulatory body in Ekiti State.

Table 7-1 EKSERB OPERATIONAL STRUCTURE AND STAFFING PLAN

Position	Assigned Department	Departmental Functions	Units under Department	Staff per Unit	Pay Scale Recommendation	Eligibility & Qualifications
Chairperson	Executive Secretariat	Provides leadership, strategy oversight, inter-agency coordination, and performance monitoring of the Bureau's overall operations.	Office of the Chair; Research, Strategy & Risk; Internal Audit	2–3 per unit	NGN 20M–30M/ annum (Chairperson)	Minimum 15 years senior regulatory or legal/technical leadership experience; postgraduate qualification; strong sector policy experience.
Secretary of the Commission	Executive Secretariat	Maintains official records, minutes, and correspondence of the Commission; ensures legal soundness of documentation; supports governance procedures.	Records & Legal Secretariat	2–3 per unit	NGN 10M–15M/ annum	LLB + BL; minimum 8–10 years legal and administrative experience in a regulatory body or legal secretariat; expertise in regulatory documentation and governance.



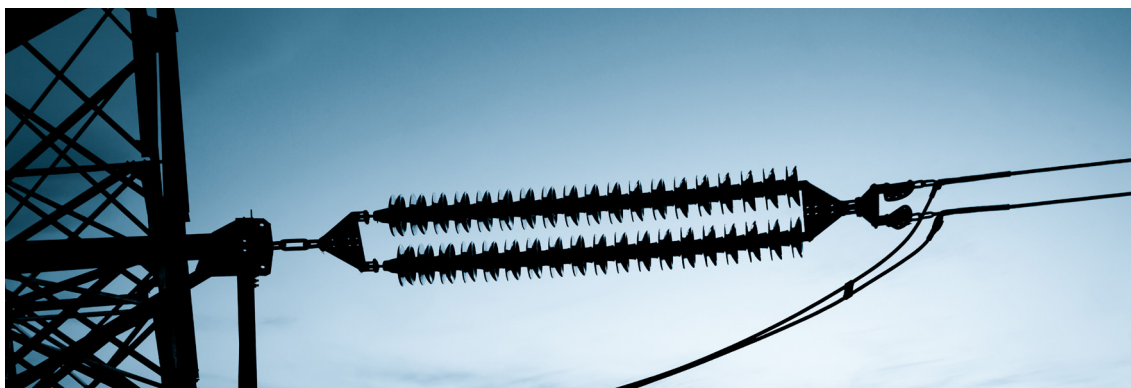
Position	Assigned Department	Departmental Functions	Units under Department	Staff per Unit	Pay Scale Recommendation	Eligibility & Qualifications
Legal & Compliance Commissioner	Licensing, Compliance & Legal Affairs	Manages licensing, legal compliance and enforcement, advisory services, and dispute resolution. Drafts regulations and safeguards EKSERB's institutional integrity.	Licensing & Permitting; Legal Advisory; Compliance & Enforcement	3–4 per unit	NGN 12M–18M/ annum (Commissioner)	LLB + BL, minimum 10 years legal experience in regulation, energy or commercial law. Expertise in drafting legal instruments and regulatory frameworks.
Tariff and Market Operations Commissioner	Tariff & Market Operations	Designs and enforces tariff methodologies; regulates market operations and competition; manages PPAs, settlements, and dispatch protocols.	Tariff Design; Market Monitoring & Dispatch; PPA & Contracts Unit	3–4 per unit	NGN 12M–18M/ annum (Commissioner)	Engineering/Economics degree; 10+ years in utility operations, market regulation or electricity pricing. Proficiency in modelling and regulatory economics.
Technical Services Commissioner	System Planning & Technical Audit	Oversees grid and system planning, monitoring technical standards, renewable energy integration.	Grid & Network Planning; Standard, Quality and Compliance; Renewable Energy and Technology Integration	3–4 per unit	NGN 12M–18M/ annum (Commissioner)	Electrical/Power Systems Engineering degree; COREN; 10+ years in grid operations, utility engineering, or technical regulation.

Position	Assigned Department	Departmental Functions	Units under Department	Staff per Unit	Pay Scale Recommendation	Eligibility & Qualifications
Consumer Affairs Commissioner	Consumer Affairs & Public Engagement	Protects consumer rights, manages complaints, leads education campaigns, and engages stakeholders to ensure transparency and trust.	Complaints & Dispute Resolution; Public Affairs & Education	3 per unit	NGN 12M–18M/ annum (Commissioner)	Degree in Law, Communications, or Social Sciences; 8+ years in consumer protection, advocacy, or public engagement. Gender/social inclusion experience preferred.
Finance & Admin Commissioner	Finance & Administration	Oversees financial planning, budgeting, procurement, HR, and general administration. Ensures compliance with public financial and administrative procedures.	Accounts & Budgeting; Procurement & Logistics; Human Resources; Admin Services	3–4 per unit	NGN 12M–18M/ annum (Commissioner)	Degree in Accounting, Public Admin, or HR; 10+ years in financial management or HR in the public or regulated private sector.
Social & Env. Commissioner	Gender, Social & Environmental Affairs	Mainstreams gender and environmental safeguards; ensures inclusion in electricity access, project design, and regulatory policy.	Gender & Inclusion; Social Impact; Environmental Compliance	2–3 per unit	NGN 12M–18M/ annum (Commissioner)	Degree in Social Sciences, Development Studies, or Environmental Management; 8+ years in ESG, donor reporting, or inclusive policy frameworks.

Additional Notes:

- ▶ Total Staffing Estimate (Year 1): ~45 Staff
- ▶ Total Staffing Estimate (Year 3): ~75 Staff
- ▶ Staffing Principles: Local hiring prioritised; gender parity encouraged; merit-based recruitment.
- ▶ Pay Grade Ranges (Non-Commissioner Staff):
 - Managerial (Unit Heads): NGN 7M–10M/annum
 - Technical/Professional Officers: NGN 4M–7M/annum
 - Support Staff/Admin Assistants: NGN 2M–4M/annum
- ▶ Recruitment to be guided by:
 - Ekiti State Public Service Rules (adapted for regulatory agency autonomy).
 - Market benchmarks for regulatory and utility staff compensation (to attract top talent)

8 Regulatory Framework and Functions



The Regulatory Framework and Functions of the Ekiti State Electricity Regulatory Bureau (EKSERB) establish the core mandates, processes, and institutional responsibilities required to govern a reliable, inclusive, and transparent electricity market. Anchored in global best practices and tailored to local realities, this framework delineates seven functional domains, ranging from licensing and tariff setting to compliance monitoring, consumer protection, and social safeguards. Each function is assigned to a dedicated department with clearly defined activities and expected outcomes to ensure regulatory efficiency, market integrity, and consumer confidence. This structure not only clarifies the operational boundaries of EKSERB but also provides a performance-based foundation for effective service delivery, stakeholder engagement, and sustainable sector growth.

Table 8-1 Regulatory Framework and Functions of the Ekiti State Electricity Regulatory Bureau (EKSERB)

Function	Core Activities / Processes	Responsible Department	Intended Outcome
1. Licensing and Market Entry	- Pre-application guidance and issuance of licensing handbook - Formal application submission with technical, financial, legal, and E&S documents - Evaluation and due diligence including stakeholder and site reviews - Publication of public notices and stakeholder input - License issuance or rejection with reasons - post-licensing onboarding and compliance briefing	Licensing & Legal Affairs Department	Structured and transparent market participation that ensures only qualified operators enter the market
2. Tariff Design & Pricing	- Define tariff methodology tailored to Ekiti (e.g., MYTO variant) - Assess revenue requirement (OPEX, CAPEX, ROA, depreciation, etc.) - Demand projection and loss assumptions - Tariff segmentation by consumer class - Organize public hearings and finalize tariff order - Publish Multi-Year Tariff Orders (MYTO) and periodic reviews	Tariff & Market Operations Department	Predictable, fair, and cost-reflective pricing that balances investor and consumer interests



Function	Core Activities / Processes	Responsible Department	Intended Outcome
3. Market Regulation & Transactions	- Review and approve PPAs, bilateral contracts, and grid service agreements - Monitor power dispatch, settlements, and contract compliance - Apply market conduct rules (e.g., dispatch merit order, anti-collusion rules) - Oversee implementation of market reforms, open access frameworks, and trading platforms	Tariff & Market Operations Department	Efficient, competitive power procurement and transparent energy trading platforms
4. Monitoring & Enforcement	- Conduct routine and ad hoc compliance audits - Monitor KPIs on fault resolution, voltage quality, metering, outages, and connections - Review and validate licensee reporting (monthly, quarterly, annual) - Impose sanctions for non-compliance (fines, license suspension/revocation) - Supervise remediation and corrective action plans	Legal & Compliance and Technical Services Departments.	Accountability and improved service performance by market participants
5. Grid System Planning & Monitoring of Technical Standard	- Assess and approve grid expansion proposals and technical interconnections - Monitor compliance to technical codes and standards - Coordinate with NERC and TCN to align grid operations and planning	Technical Services	Improved grid stability, reduced technical losses and reliable service delivery.

Function	Core Activities / Processes	Responsible Department	Intended Outcome
5. Consumer Protection & Engagement	• Operate multi-channel complaint redress system (online, call-in, in-person) • Establish local consumer forums and mobile dispute resolution units • Enforce minimum service standards (fault repair time, billing accuracy, metering timelines, etc.) • Carry out consumer education and awareness campaigns • Maintain public participation in regulatory rulemaking	Consumer Affairs & Public Engagement Dept.	Equitable service delivery, reduced consumer abuse, and increased public trust in the electricity sector
6. Institutional Finance & HR	• Develop EKSERB's budget, manage expenditure and procurement • Maintain financial records and compliance with public finance standards • Manage recruitment, staff training, and office administration • Support operations through effective logistics and asset management	Finance & Administration Department	Financial sustainability, operational efficiency, and institutional credibility
7. Social Inclusion, Gender & Environment	• Integrate gender action plans in licensing and compliance • Monitor environmental and social safeguards (EIA/ ESMP adherence) • Enforce equity-focused energy access targets • Report on gender, youth, and vulnerable group engagement • Build licensee capacity for inclusive and green electricity practices	Gender, Social & Environmental Affairs Dept.	A socially inclusive and environmentally responsible electricity market in alignment with state and global standards



9 Institutional Interactions and Collaboration

The successful implementation of Ekiti State's electricity market reform relies on a coordinated institutional ecosystem, with each entity playing a distinct but complementary role. The Institutional Roles and Expected Interactions section defines the mandates and collaborative interfaces of key stakeholders—including regulatory, operational, policy, and technical bodies. These institutions, ranging from the Ekiti State Electricity Board (ESEB) and the Ekiti State Power Company (ESPC) to ministries, cooperatives, and federal agencies like NERC, are essential for delivering seamless regulatory oversight, infrastructure development, policy alignment, and inclusive electricity access. Clear articulation of their roles and interaction pathways is critical for fostering operational synergy, avoiding regulatory overlaps, and achieving the shared vision of a reliable, inclusive, and sustainable electricity market in Ekiti State.

Table 9-1 Institutional Roles and Expected Interactions

Institution	Role	Expected Interaction
ESEB (Electricity Board)	Oversees State Electricity Technical functions under rural electrification, grid expansion, maintenance, and development of state-owned power infrastructure.	Joint planning for rural electrification and off-grid programs, license enforcement support, data sharing on infrastructure rollout, and alignment of public investments with regulatory frameworks.
ESPC (Power Company)	The Ekiti State Power Company Limited (ESPC) is envisioned to operate as a Regulated monopoly company with franchised distribution and open-access to traders (ESCOs). Essentially saying It operates as the monopoly distributor but sub-franchise to other operators (e.g., BEEL, EKEDC, OPDL) a pivotal role encompassing the promotion of public-private partnerships, mobilising investment, and spearheading the development of strategic electricity infrastructure projects, with all licensed and operating distribution companies in Ekiti serving as its partners in these endeavours. Its operational mandate includes comprehensive network operation and management, ensuring non-discriminatory access to the grid, setting technical services and standards, and leading emergency management efforts, thereby serving as the primary face of Ekiti State's involvement in the electricity sector.	ESPC's institutional interactions and collaborations are central to its mandate. These will encompass the rigorous performance monitoring of all licensed state-led electricity projects, including those undertaken by its partner distribution companies. Furthermore, ESPC will actively engage in tariff reviews, provide essential support for project appraisal (leveraging its role in mobilizing investment and leading infrastructure development), and critically ensure full alignment with all established licensing conditions and investment regulations, thereby upholding the technical standards and non-discriminatory access it is responsible for.

Institution	Role	Expected Interaction
MIPU	Provides policy leadership, strategic direction, and inter-ministerial coordination in the electricity sector.	Policy alignment, coordination of regulatory reforms, joint planning of state-wide electricity access programs, and legislative support for enabling laws and amendments.
COUs	Serve as cluster-based demand aggregators and community electricity cooperatives in rural and peri-urban areas.	Licensing engagement, compliance reporting, site-level inspections and collaboration on energy access and affordability.
ESEMSD	Provides technical oversight for network standards, market systems, metering, and grid stability.	Standards enforcement, technical assessments, asset verification, grid code compliance and quality assurance in project execution.
NERC	Federal regulator with oversight on transitional matters and national regulatory consistency.	Inter-agency coordination on transitional issues, especially license transfers, market rules alignment, embedded generation, and joint guidance on areas of regulatory overlap under the EA 2023





10 Proposed Revenue Streams And Financial Projection

To ensure operational sustainability, institutional independence, and effective regulatory oversight, the Ekiti State Electricity Regulatory Bureau (EKSERB) requires a diversified and transparent revenue model. The Proposed Revenue Streams outlined in this section are designed to align with international regulatory best practices while remaining sensitive to local market realities. They include a mix of statutory fees, levies, government support, and service-based income ranging from licensing and regulatory levies to training programs, arbitration services, and data publications.

These revenue sources are structured to not only fund core regulatory functions such as compliance monitoring, tariff setting, and consumer protection, but also to incentivize market development, promote accountability, and reduce long-term reliance on public financing. By anchoring its funding on predictable and performance-linked streams, EKSERB can maintain its independence, scale its institutional capacity, and foster a stable, investor-friendly electricity market in Ekiti State.

Table 10-1 Proposed Revenue Streams

Revenue Stream	Description and Strategic Relevance
1. License and Permit Fees	This constitutes a foundational revenue stream derived from the issuance and renewal of licenses and permits to electricity market participants. Applicable to Independent Power Producers (IPPs), Distribution Companies, Independent Electricity Distribution Network Operators (IEDNOs), embedded generators, mini-grid developers, and technical service providers. Fees are calibrated based on capacity, market segment, and operational complexity, covering administrative processing and compliance costs.
2. Regulatory Levies on Market Participants (1% Cap)	A structured annual levy—capped at 1% of gross market revenue—imposed on all licensed operators to support core regulatory functions such as market surveillance, performance monitoring, rule enforcement, and consumer protection. The levy ensures financial sustainability while limiting the financial burden on operators, preserving affordability and market competitiveness. Its transparent administration also reinforces EKSERB's accountability and independence.
3. State Budget Allocations (Startup Phase)	In EKSERB's initial years, capital and recurrent budgetary support from the Ekiti State Government remains essential. These allocations cover startup costs such as staffing, infrastructure, IT systems, and development of initial regulatory instruments. While this support is expected to decline over time, it is critical to anchor the regulator's early capacity and public legitimacy.
4. Development Partner Grants and Technical Assistance	EKSERB can leverage grants and support from multilateral organisations (e.g., AfDB, World Bank, GIZ, USAID) to fund regulatory reforms, market design, staff capacity-building, stakeholder engagement, environmental and gender inclusion programming, and digitisation of regulatory systems. These targeted, non-reimbursable funds enhance credibility and speed up institutional maturity without creating fiscal strain.

Revenue Stream	Description and Strategic Relevance
5. Revenue from Dispute Resolution and Arbitration Services	EKSERB may serve as a neutral arbiter in market-related disputes between licensees, or between operators and consumers. Charges for formal mediation, arbitration, or adjudication services—especially for large-scale contractual disputes—can form a modest but important revenue source, reinforcing the Bureau's quasi-judicial authority.
6. Training and Certification Programs	The regulator can offer industry training, professional certification, and technical seminars for licensees, consultants, and utility professionals on evolving regulatory codes, safety standards, compliance reporting, and consumer engagement. These fee-based programs promote capacity development while generating non-tariff revenue.
7. Sale of Regulatory Data and Publications	EKSERB will maintain a regulatory data portal and publish sectoral reports, tariff models, compliance indices, market performance bulletins, and research papers. While basic access should remain free, the Bureau may charge institutional stakeholders (consultants, investors, academics) for bulk datasets, analytics tools, or printed publications to offset publication and data management costs.
8. Fines and Penalties for Non-Compliance	While not a primary revenue mechanism, monetary penalties for regulatory violations (e.g., license breaches, late reporting, non-performance) contribute to both deterrence and supplementary funding. These fines must be transparently applied and guided by due process, with proceeds reinvested into compliance monitoring and consumer protection programs.
9. Infrastructure Access and Interconnection Charges	For third-party access to shared infrastructure—such as state-owned substations, data platforms, or public transmission assets—EKSERB may supervise and receive a share of interconnection fees or wheeling charges paid by market participants, particularly in open-access scenarios. This incentivises grid-sharing while generating operational revenue.

The table below outlines EKSERB's projected revenue streams over a five-year period, based on a scaling energy market that grows from 100MW in Year 1 to 500MW in Year 5. A major component of revenue is the Regulatory Levy, which contributes a significant part of total income annually and is calculated as 1% of gross market revenues. This growth reflects expanding electricity transactions as generation capacity scales. In the early years, State Budget Allocations and Development Grants provide essential start-up support, gradually reducing by Year 5 as EKSERB transitions to self-sustainability.

Table 10 2 Five-year Revenue Item List

Revenue Item	Year 1	Year 2	Year 3	Year 4	Year 5
Energy Capacity	100MW	200MW	300MW	400MW	500MW
License & Permit Fees (N'Mn)	35	40	45	50	55
Regulatory Levy (1%) (N'Mn)	360	720	1,080	1,440	1,800



Revenue Item	Year 1	Year 2	Year 3	Year 4	Year 5
State Budget Allocation (N'Mn)	300	200	200	100	-
Development Grants (N'Mn)	150	100	100	100	100
Dispute Resolution Revenue (N'Mn)	-	-	15	20	25
Training & Certification (N'Mn)	-	-	15	15	30
Data Sales & Publications (N'Mn)	-	-	10	10	10
Fines & Penalties (N'Mn)	-	15	15	15	15
Infrastructure Access Fees (N'Mn)	-	15	20	25	30
Total Revenue (N'Mn)	N845 Mn	1,090	1,500	1,775	2,065

Notes:**1. Licensing & Permits for Y1 based on:**

- ▶ IPPs: 5 × N5M/license
- ▶ ESCos: 3 × N3M/license
- ▶ Mini-grids: 20 × N1M/license
- ▶ Service Providers: 10 × N500K

2. Regulatory Levy computation for Y1 based on:

- ▶ 1% of gross market revenue for 100MW energy capacity
- ▶ 72,000MWh*LF (0.75) *Av. Gen. Tariff(N124/KWh) *CE*12months

Furthermore, the expenditure table below presents EKSERB's projected operating costs over five years, reflecting the institution's growth and operational maturity. In Year 1, NGN 100 million is allocated for Office & Building Expenses to establish core infrastructure, including headquarters setup, furniture, ICT systems, and utilities.

Staff-Related Expenses rise steadily from NGN 455 million in Year 1 to NGN 950 million by Year 5, driven by recruitment, professional development, and performance-based compensation as EKSERB scales its technical, legal, and regulatory workforce to match market expansion. Operational Expenses, covering regulatory tools, stakeholder engagements, inspections, and technology systems, increase moderately as responsibilities deepen. Miscellaneous Expenses remain flat, serving as contingency for unforeseen items such as legal fees, logistics, and minor equipment. Overall, the cost structure reflects a strategic scale-up in regulatory capacity and service delivery.

Table 10-3 Five-year Expenditure Item list

Expenditure Item	Year 1 (NGN Million)	Year 2 (NGN Million)	Year 3 (NGN Million)	Year 4 (NGN Million)	Year 5 (NGN Million)
Office & Building Expenses	100	80	80	80	80
Staff-Related Expenses	455	550	725	850	950
Operational Expenses	65	70	80	100	120
Miscellaneous Expenses	50	50	50	50	50
Total Expenses	670	750	935	1,080	1,200

The 5-year financial projection highlights EKSERB's steady trajectory toward financial sustainability, driven by expanding market activity and diversified revenue streams. Total Revenue grows from NGN 845 million in Year 1 to NGN 2.065 billion by Year 5, reflecting increased regulatory levies, license fees, and non-tariff income from services such as training, dispute resolution, and infrastructure access. This revenue growth supports the Bureau's reduced dependence on state budget allocations and positions it as a self-sustaining regulator.

Total Expenses rise from NGN 670 million to NGN 1.2 billion over the same period, driven largely by staffing and operational expansion. Despite these increases, EKSERB is projected to generate a Net Surplus, increasing from NGN 175 million in Year 1 to NGN 865 million in Year 5. This surplus provides a strategic opportunity to reinvest in sector development, particularly by supporting off-grid renewable energy projects that expand access in underserved areas. Additionally, a portion of the surplus could be allocated to a targeted subsidy pool aimed at cushioning vulnerable consumers and enhancing affordability under a cost-reflective tariff regime thereby reinforcing inclusivity and energy equity within the state electricity market.

Table 10-4 Five-year Revenue projections

	Year 1 (NGN Million)	Year 2 (NGN Million)	Year 3 (NGN Million)	Year 4 (NGN Million)	Year 5 (NGN Million)
Total Projected Revenue	845	1,090	1,500	1,775	2,065
Total Projected Expenditure	670	750	935	1,080	1,200
Net Surplus/ Deficit	175	340	565	695	865

11 EKSERB Capacity Development and Mentorship Programme

To build a competent, adaptive, and forward-looking regulatory institution, the Ekiti State Electricity Regulatory Bureau (EKSERB) should invest in a comprehensive Capacity Development and Mentorship Programme. This structured initiative is designed to equip staff and Commissioners across all departments with the technical expertise, regulatory acumen, and leadership skills necessary to deliver on the Bureau's mandate.

Through a blend of local and international training, peer mentorship, technical attachments, fellowships, and in-house knowledge-sharing, the programme ensures continuous learning, institutional strengthening, and sector-wide credibility. From foundational induction bootcamps and partnerships with NERC, to global regulatory exposure through platforms like AFUR and NARUC, the plan reflects EKSERB's commitment to professional excellence, inclusive regulation, and operational efficiency.

These initiatives are strategically timed to align with onboarding, evolving sector trends, and the Bureau's growth trajectory, positioning EKSERB as a model subnational regulator within Nigeria's reformed electricity landscape.

Table 11-1 Proposed EkSERB Capacity Development Programme

Programme Title	Target Group / Department	Type (Local/Int'l, In-house/ External)	Description and Objectives	Timeline / Duration
1. Induction Training & Regulatory Bootcamps	All staff and Commissioners (cross-departmental)	Local; External (facilitated by regulatory experts & partners)	Foundational training covering the Electricity Act 2023, EKSERB's enabling law, regulatory frameworks, licensing procedures, MYTO methodology, market design, and consumer engagement. Promotes uniform understanding of roles and regulatory culture.	Within 3 months of staff onboarding; repeated annually for new intakes (5-day intensive program)
2. Mentorship Program with NERC	Legal, Tariff, Market Operations, Compliance Departments	Local; External (technical mentorship)	A formal collaboration with the NERC to provide institutional guidance, peer review, and technical assistance on tariff design, grid codes, market rules, and dispute resolution.	Structured quarterly sessions and embedded technical assistance over 12 months (renewable)
3. Technical Attachments to NERC/Zonal Offices	Junior and mid-level professionals in Tariff, Compliance, Licensing	Local; External/Field-based	Rotational learning experience where staff are seconded to NERC or other state regulatory offices to gain hands-on experience with regulatory systems, inspections, and public hearings.	4–6 weeks per batch, twice annually
4. Regulatory Fellowship for Young Professionals	Policy, Legal, Economic, or Engineering graduates	Local; In-house and Partner-Facilitated	Annual fellowship designed to groom early-career professionals through mentorship, shadowing, and real project assignments. Includes modules on regulation, sustainability, data analysis, and public service ethics.	12-month program (renewable intake every July)



Programme Title	Target Group / Department	Type (Local/Int'l, In-house/ External)	Description and Objectives	Timeline / Duration
5. Participation in AFUR, ERIGS, and NARUC Events	Commissioners, Senior Technical Staff (cross-departmental)	International; External	Active involvement in African and global regulatory networks such as the African Forum for Utility Regulators (AFUR), Electricity Regulatory Index for Africa (ERIGS), and NARUC programs. Supports benchmarking and global learning.	Ongoing (at least 3 events annually)
6. Short-Term Executive Courses	Senior Management and Commissioners	International; External (executive education)	Specialised short courses on regulatory economics, competition policy, clean energy integration, and institutional leadership. Builds global exposure and credibility for EKSERB.	1–2 weeks per course; offered quarterly
7. Gender, Disability, and Social Inclusion Mainstreaming Workshops	All departments, especially Consumer Affairs, Tariff, Licensing	Local; In-house and Partner-Supported	Practical workshops to integrate social inclusion into all regulatory functions. Topics include designing inclusive tariffs, licensing obligations for gender equity, and stakeholder mapping.	2–3 workshops annually (2–3 days each)
8. ICT and Data Systems Training (e-Regulation Tools)	Monitoring, Licensing, Tariff, and Admin staff	Local; In-house or Vendor-Supported	Training on digital regulatory tools including licensing portals, e-tariff modules, compliance dashboards, and GIS mapping. Supports data-driven regulation and operational efficiency.	Bi-annual (3–5 days per session)
9. Compliance and Audit Capacity Building	Compliance & Performance Monitoring Department	Local; External	Specialized training on inspection protocols, performance KPIs, audit report writing, and enforcement procedures. May include mock inspections and peer reviews.	Quarterly sessions (2–3 days each)
10. Internal Knowledge Sharing Sessions	All staff and departments	In-house	Monthly staff seminars where departments present lessons learned, project updates, regulatory developments, or policy briefs to foster a collaborative learning environment.	Monthly (1–2 hours per session)



12 Priority Regulatory Instruments And Roadmap

To ensure a well-governed, transparent, and investor-friendly electricity market in Ekiti State, EKSERB will need to develop and implement a suite of regulatory instruments tailored to the state's evolving electricity landscape. These instruments will define the technical, legal, commercial, and consumer protection frameworks necessary for effective market regulation, aligning with the provisions of the Ekiti State Electricity Power Sector Law and the Electricity Act 2023. The table below outlines the proposed instruments, their core functions, and indicative timelines for rollout.

Table 12-1 Regulatory Instrument & Timeline

Instrument	Description	Proposed Timeline
Licensing Regulation	Defines license categories (generation, transmission, distribution, mini-grid, off-grid, service providers), eligibility criteria, validity periods, conditions, and revocation procedures. Ensures structured market entry and compliance.	Q3 2025
Tariff Order (Ekiti MYTO)	Adapts the national MYTO model to reflect Ekiti's market realities, including cost-of-service methodology, customer classes, and periodic review mechanisms. Supports cost-reflective pricing and investor confidence.	Q3 2025
Compliance Code	Outlines minimum performance standards, reporting obligations, service KPIs, and enforcement triggers for licensed operators. Drives transparency, accountability, and efficiency in service delivery.	Q4 2025
Distribution Code	Specifies technical and operational standards for distribution network planning, operations, maintenance, safety, and quality of supply. Aligns with national standards while reflecting state priorities.	Q4 2025
Consumer Protection Code	Establishes consumer rights, complaint resolution processes, disconnection rules, service guarantees, and standards for transparency and engagement.	Q4 2025
Grid Code (State-Level Adaptation)	Defines rules and standards for safe, reliable, and efficient planning and operation of interconnected generation and transmission systems in Ekiti. Includes connection criteria, system control, and scheduling protocols.	Q1 2026
Market Rules	Governs interactions among market participants—power procurement, dispatch, settlement, bilateral contracting, and open access arrangements. Supports transparency and competition in generation and supply.	Q1 2026

Instrument	Description	Proposed Timeline
Mini-grid & Off-grid Regulation	Provides licensing frameworks, technical guidelines, performance benchmarks, and consumer protection rules specific to mini-grid developers and off-grid operators.	Q2 2026
Business Continuity Regulation	Sets operational, financial, and administrative resilience requirements for licensed operators and the regulator, including contingency planning, disaster recovery, and service continuity obligations.	Q2 2026

13 Investment and Inclusive Regulation Considerations

The regulatory strategies outlined below aims to create a balanced, inclusive, and investment-friendly electricity market in Ekiti State, while reinforcing sustainability, equity, and long-term economic development.



i. Promote data-informed tariff setting using cost-of-service models -

This involves the use of robust data—covering capital and operational expenditure, customer categories, consumption patterns, and loss levels, among others—to determine tariffs that reflect the true cost of delivering electricity services. This would ensure fair, transparent, and sustainable electricity pricing and attract long-term private investment by reducing regulatory uncertainty.

Implication for EKSERB:

Builds credibility in the tariff regime, encourages cost-reflective pricing while protecting vulnerable customers, and supports financial viability of service providers



ii. Encourage cluster-based market development to stimulate C&I growth -

This strategy promotes the establishment of demand clusters—such as industrial zones, tech hubs, agribusiness corridors, and tertiary institutions—to aggregate



electricity demand and create viable sub-markets for private sector-led generation and distribution. It aims to de-risk investments by offering predictable demand patterns and foster Commercial & Industrial (C&I) market development and job creation.

Implication for EKSERB:

Supports localised energy planning, fast-tracks electrification of economic hubs, and aligns electricity regulation with state development goals.


iii. Mandate gender-disaggregated data reporting for licensees -

Licensees (such as, distribution companies, mini-grid operators, and independent power providers) will be required to collect and report data that is disaggregated by gender, including customer categories, service access, and employment. This will help identify and address gender disparities in electricity access and employment and enable the regulator to evaluate how electricity services are reaching different demographics.

Implication for EKSERB:

Integrates gender equity into regulatory oversight, strengthens evidence-based policymaking, and reinforces inclusivity as a regulatory priority.


iv. Require Environment and Social Impact Analysis (ESIA) compliance for all infrastructure projects -

All generation, transmission, and distribution projects—whether public or private—must conduct an ESIA in line with national and state regulations before licensing or implementation. This ensures that infrastructure development is environmentally sustainable and socially responsible, thereby mitigating risks related to land use, community displacement, biodiversity loss, and pollution.

Implication for EKSERB:

Enforces accountability, safeguards vulnerable populations, and aligns Ekiti State electricity projects with global ESG (Environmental, Social, and Governance) standards, thereby improving access to climate finance and donor support.

14 Performance Monitoring and Reporting

To ensure accountability, transparency, and continuous improvement in the regulation of the Ekiti State electricity market, EKSERB would need a robust performance monitoring and reporting framework. This framework (highlighted below) is designed to systematically track the performance of both the regulatory institution and licensed market participants, while also incorporating feedback from electricity consumers.

i. Annual Regulatory Scorecard

A structured internal and public-facing tool to evaluate EKSERB's performance across core regulatory functions. The scorecard will assess institutional efficiency and outcomes in:

- ▶ Timeliness of license processing and renewals.
- ▶ Execution of tariff reviews and stakeholder consultations.
- ▶ Enforcement actions taken and resolved.
- ▶ Responsiveness to complaints and dispute resolution.
- ▶ Gender and social inclusion integration.

The scorecard will benchmark EKSERB against Key Performance Indicators (KPIs) and national/regional standards such as the Electricity Regulatory Index for Africa (ERIGS).

ii. Biannual Licensee Performance Reviews

A formal process to evaluate the operational, financial, and customer service performance of all licensed entities twice a year. Key criteria include:

- ▶ ATC&C Loss Reduction: Review of efforts and outcomes in reducing Aggregate Technical, Commercial & Collection losses with year-on-year targets.
- ▶ Performance Improvement Plans (PIPs): Assessment of licensee progress on submitted and approved PIPs, including infrastructure upgrades, network expansion, and service quality improvements.
- ▶ Customer Metering Rates: Evaluation of progress in achieving minimum thresholds for metering coverage and reduction in estimated billing.
- ▶ Outage Frequency and Duration (SAIFI/CAIDI): Monitoring system reliability indicators and adherence to service standards.
- ▶ Response Time to Complaints and Faults: Measuring customer service turnaround times and resolution rates.

Corrective measures may include the issuance of warnings, compliance directives, license amendments, or penalties.

iii. Consumer Satisfaction Surveys (twice yearly)

Surveys administered to electricity consumers across the state - rural, urban, residential, and commercial - to gauge satisfaction with electricity services and regulatory responsiveness. Focus areas include:

- ▶ Perception of supply reliability and quality.



- ▶ Transparency and fairness of billing.
- ▶ Customer service experience (complaint handling, response time).
- ▶ Awareness of rights and complaint channels.

iv. Public Regulatory Report and Performance Dashboard

An annual regulatory performance report, complemented by interactive online dashboard, which publishes:

- ▶ Key regulatory decisions and interventions.
- ▶ Licensee performance data (ATC&C losses, customer metering, CAIDI/SAIFI).
- ▶ Tariff reviews and service standards enforcement.
- ▶ Consumer satisfaction scores and complaints resolution statistics.

The dashboard will be updated quarterly to foster transparency, informed public discourse, and investor visibility into market conditions.

15 Conclusion

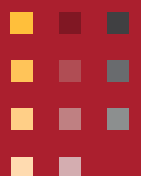
The operationalisation of EKSERB is central to the success of Ekiti State's electricity market reform. Through clear institutional structures, robust regulatory tools, inclusive policies, and proactive stakeholder engagement, EKSERB is positioned to drive energy access, market stability, and private sector confidence in the new electricity market era of Ekiti State.

Section

03



**Sustainable Capacity Building
Framework for Ekiti State
Electricity Market**





16 Capacity Assessment of Ekiti State Electricity Market

As Ekiti State transitions into managing its own electricity market, there are foundational capacity gaps across key institutions and stakeholders. Historically excluded from electricity market operations, the state lacks the technical, regulatory, and human resource infrastructure to independently oversee generation, transmission, and distribution. Institutional clarity, data systems, skilled manpower, and grassroots coordination mechanisms are either nascent or non-existent. The table below outlines key capacity challenges tied to respective agencies and priority activities.

Table 16-1 key capacity challenges

Key Activity or Mandate	Entity Responsible	Identified Capacity Gaps
Market regulation, licensing, compliance, tariff setting, performance monitoring	EKSERB; Regulator empowered by Law	- No operational framework, limited legal staff, lack of sector-specific regulatory skills
Policy formulation, GESI integration, cross-sector alignment	MIPU (Policy & Coordination)	Limited GESI capacity, low energy sector familiarity & Capacity
Oversee network, market, metering, and grid stability	ESEMSD, under EKERB; empowered by law	Lacks human & Technical capacity to carry out its functions.
Asset management of state electricity	ESEB; under MIPU & empowered by law	Limited technical capacity, Poor data systems
Workforce development and technical training	No locally established entity	Ekiti State electricity market will rely on NAPTIN in the beginning but it is important to have a locally established entity that is responsible for coordinating relevant activities.
Community engagement, access facilitation	Local Governments / CBOs	Low awareness of energy reforms, no structured capacity on energy literacy or advocacy
Support to SMEs and productive energy use	SMEDAN / Ministry of Trade	No energy-use data for MSMEs, poor linkage to electrification planning

17 Goals

17.1 Vision

To build a future-proof, inclusive, and innovation-driven electricity market in Ekiti State that ensures reliable, affordable, and sustainable energy access for all. The framework envisions empowering institutions, fostering technical excellence, advancing gender equity, and stimulating local economic transformation through strategic and sustained capacity development.

17.2 Strategic Objectives

- ▶ Build a capable and autonomous regulatory environment to govern a liberalised electricity market.
- ▶ Develop a technically skilled workforce across all tiers of the electricity value chain.
- ▶ Promote gender equity and inclusive access to sector opportunities.
- ▶ Catalyse innovation through research, digitalisation, and emerging technologies.
- ▶ Support sustainable energy access for SMEs and vulnerable communities to drive inclusive economic growth.
- ▶ Prepare the next generation of energy professionals through youth-focused STEM initiatives.

18 Capacity Building Framework

The Ekiti State capacity building framework is hinged on the following four pillars. Capacity building activities will be structured around these 4 pillars.



Foundational Sector-Wide Programs

These are sector wide reform activities targeted at ensuring that the required systems, structures and practices are in place to drive the activities of the electricity market.

i. Finalise and institutionalise the business and operational plan for EKSERB with phased transition milestones toward regulatory autonomy.

- ▶ Lead Responsibility: Ministry of Infrastructure and Public Utilities (MIPU), with support from the Governor's Office and technical partners.
- ▶ Expected Outcome: Establishes a legal, financial, and governance foundation



for EKSERB as a functional, independent regulatory agency. This will directly address the absence of a regulatory framework and skilled staff for licensing, compliance, and oversight.

ii. Establish a dedicated Energy Market Capacity Development Hub, offering blended learning (e-learning, in-person, mentorship).

- ▶ Lead Responsibility: EKSERB in collaboration with Ministry of Education (MoE), State Technical and Vocational Boards, and development partners.
- ▶ Expected Outcome: Builds a local pool of energy professionals across technical, legal, and policy fields. This will reduce dependency on external consultants and fill technical manpower gaps across agencies.

iii. Develop an Integrated Energy Sector Data Platform for planning, transparency, and investment intelligence.

- ▶ Lead Responsibility: ESEMSD in partnership with MIPU's Energy Desk and ICT agencies.
- ▶ Expected Outcome: Enables data-driven decision-making and regulatory oversight by consolidating technical, financial, and access data. This addresses the lack of baseline data and weak monitoring systems across the sector.

iv. Initiate periodic stakeholder knowledge exchange forums with cross-sector actors to share lessons and policy feedback.

- ▶ Lead Responsibility: EKSERB and MIPU, with facilitation by CSOs and academia.
- ▶ Expected Outcome: Promotes continuous learning, collaborative planning, and policy responsiveness. This intervention will help bridge institutional silos and embed adaptive governance culture within the state energy ecosystem.

B

Technical Vocational Training for the Value Chain

This starts with instituting an entity dedicated for capacity development and can be called the Ekiti State Electricity Training and Capacity Development Institute (ESET-CDI). This agency may be created by amending the existing electricity law or as a technical subsidiary of EKSERB. Its mandate will be to address sector-wide skills shortages, particularly in grid management, renewables, safety, and customer-focused delivery like the role of NAPTIN at the federal level.

This institution will coordinate the development and delivery of accredited electricity-sector vocational training across the value chain. It will collaborate with relevant national entities such as NAPTIN, NABTEB, ITF, and tertiary institutions (particularly polytechnics and universities in Ekiti) to ensure quality, certification, and national recognition of programs.

Foundational capacity building program to be implemented by ESET-CDI when created include;

- i. Accredited Vocational Training Programs** - ESET-CDI will design and deliver modular, nationally accredited courses as below, which will integrate classroom

theory, virtual simulations, and supervised fieldwork to ensure holistic skill acquisition.

- ▶ Smart grid engineering and real-time system operations – supporting modern grid stability, demand response, and real-time energy balancing.
- ▶ Renewable energy deployment and microgrid system design – building capacity for decentralised solutions in underserved communities.
- ▶ Meter installation, maintenance, and energy auditing – enabling effective customer billing and energy efficiency auditing.
- ▶ Power systems cybersecurity and SCADA operations – enhancing digital infrastructure safety and operational reliability.

ii. **Youth Energy Corps Program (YECF)** - The YECF will function as a talent acceleration platform, modeled after youth service and apprenticeship schemes. Young people, from high-unemployment LGAs will be recruited, trained, and deployed as local energy technicians. This program will not only reduce youth unemployment but also deepen community ownership of energy systems. They will support:

- ▶ Solar home system and mini-grid installation and maintenance
- ▶ Meter installation and customer service
- ▶ Local grid inspections and repairs under supervision
- ▶ Energy literacy campaigns within communities.

iii. **Mobile Training Labs (MTL)** - To ensure inclusivity, ESET-CDI will deploy mobile training labs solar-powered trailers equipped with diagnostic tools, laptops, learning kits, and simulation stations. These mobile units will:

- ▶ Rotate across underserved LGAs on a schedule.
- ▶ Deliver short-term certificate courses and refresher training.
- ▶ Prioritize outreach to women, persons with disabilities, and youth without formal schooling.

Partnering with LGAs and traditional institutions, these mobile labs will democratise access to skills development bridging the rural-urban gap and enabling last-mile capacity growth.

MTL Institutional Arrangements and Oversight

- ▶ **Lead Responsibility:** EKSERB and MIPU will jointly oversee the creation and operational framework of ESET-CDI.
- ▶ **Supporting Entities:** Ministry of Education, TVET Board, local polytechnics, and development partners (e.g., GIZ, AfDB).
- ▶ **Quality Assurance:** Programs will be subject to periodic review and validation by national certification bodies, with industry advisory boards ensuring relevance.

MTL Expected Outcomes

- ▶ Creation of a local, industry-ready workforce to support generation, metering, maintenance, and customer care.
- ▶ Strengthened pipeline of young professionals into energy careers, especially from disadvantaged areas.
- ▶ Increased technical ownership and maintenance capacity at the community level, reducing



downtime and dependency on external contractors.

- ▶ Empowerment of women and excluded groups with marketable technical skills, aligned with energy transition needs.

C

Gender and Social Inclusion Initiatives

To institutionalise gender and social inclusion across the state's electricity market, it is proposed that a dedicated Gender and Social Inclusion Department be established within the Ministry of Infrastructure and Public Utilities (MIPU). This department will be responsible for embedding inclusive practices into all sector planning, regulation, and service delivery, ensuring that electricity reforms do not perpetuate inequality but serve as a platform for empowerment.

While MIPU will host the department and provide overall policy guidance, the department will work in close coordination with EKSERB, the State Ministry of Women Affairs, the Ministry of Education, and key civil society actors to ensure coherent implementation and monitoring.

Foundational Activities of the GESI Department

i. Mainstream GESI Across Sector Governance

- ▶ Review and revise all electricity sector policies, regulatory frameworks, and licensing templates to reflect gender and social inclusion indicators (e.g., requirements for inclusive hiring, gender-responsive customer care, and universal design for disabled access).
- ▶ Provide GESI training and technical assistance to agencies and private sector actors to support compliance and institutional change.
- ▶ Monitor and report on GESI compliance as part of the sector's annual performance evaluation.

ii. STEM and Innovation Access for Girls

- ▶ Partner with public and private schools across LGAs to introduce and support energy-focused clubs for girls covering coding, robotics, climate-smart energy innovation, and digital safety.
- ▶ Provide toolkits, guest mentors (especially women in STEM), and annual tech expos to celebrate girls' innovation in energy.
- ▶ Align club curricula with the goals of the Youth Energy Corps and broader sector workforce development needs.

iii. Leadership Pipelines for Women in Energy

- ▶ Design and manage fast-track fellowships and leadership pathways targeting women seeking careers in regulation, utilities, and energy entrepreneurship.
- ▶ Offer targeted executive education, internships, and mentorship pairing with women leaders in Nigeria and abroad.
- ▶ Partner with existing initiatives (e.g., Women in Energy Network, WIEN) to enhance sustainability and knowledge sharing.

iv. Inclusive Electrification for Care Institutions

- ▶ Identify and map care institutions across the state health clinics, schools,

shelters, elderly centers with limited or no electricity access.

- ▶ Prioritize these institutions in grid extension, mini-grid siting, and public-private energy interventions, ensuring reliable and safe access to power for those most in need.
- ▶ Embed GESI impact assessments into all major public energy projects.

v. Establish a Gender and Inclusion Advisory Council

- ▶ Constitute a multi-stakeholder Gender and Inclusion Advisory Council under MIPU, comprising representatives from the regulator, civil society, women's groups, persons with disabilities, and academia.

The Council will:

- ▶ Review and validate GESI strategies
- ▶ Track GESI indicators across all electricity programs
- ▶ Provide quarterly guidance and feedback to MIPU and EKSERB
- ▶ Advice on emerging risks, opportunities, and best practices.

Expected Outcomes

- ▶ Systemic integration of GESI in energy planning, licensing, and implementation.
- ▶ Expanded pipeline of girls and women entering the energy sector through STEM, entrepreneurship, and regulation.
- ▶ Improved access to power for vulnerable groups and care-based institutions across the state.
- ▶ Stronger accountability for inclusion through institutionalized monitoring and cross-sector collaboration.

D

Research, Innovation, and SME Empowerment

To drive homegrown innovation and unlock economic value from improved energy access, Ekiti State will establish the Ekiti Centre for Energy Research, Innovation & Entrepreneurship (E-CEIRE). This Centre will be hosted within a state-owned tertiary institution (e.g., Bamidele Olumilua University of Education, Science and Technology) but operate as a semi-autonomous body under the joint oversight of the Ministry of Innovation, Science & Digital Economy and the Ministry of Infrastructure and Public Utilities (MIPU).

The Centre will coordinate applied research, local entrepreneurship support, and the commercialization of context-specific energy solutions. It will function as a bridge between academia, energy firms, policymakers, and the community accelerating innovation and inclusive enterprise growth.

Foundational Activities of E-CEIRE

i. Establish a Research and Innovation Hub for Clean Energy

- ▶ Launch the E-CEIRE to lead applied research in mini-grid systems, productive-use technologies (e.g., solar irrigation, refrigeration), and energy data analytics (e.g., load forecasting, billing platforms).
- ▶ Support interdisciplinary research teams combining engineering, economics, agriculture, and gender studies to solve energy challenges faced by rural communities and SMEs.



ii. Develop Innovation Challenge Funds and Demo Grants

- ▶ Design an annual pipeline of hackathons, clean energy idea sprints, and challenge competitions targeting youth and women innovators.
- ▶ Provide microgrants, mentorship, and incubation support to selected early-stage solutions.
- ▶ Facilitate pathways from concept to prototype to commercial viability, with technical validation by EKSERB and investment linkages via development finance institutions.

iii. Enable University-Industry Technology Transfer

- ▶ Facilitate technology transfer and research collaboration agreements between local universities/polytechnics and energy companies (e.g., solar developers, smart meter firms).
- ▶ Promote student and faculty placements within companies and cross-sector fellowships.
- ▶ Create joint patent ownership frameworks and shared innovation licensing models.

iv. Create a Digital Marketplace for the Energy Ecosystem

- ▶ Build and maintain an online platform where energy service providers, rural cooperatives, local governments, SMEs, and consumers can interact.
- ▶ The platform will list available services (e.g., solar installation, energy audits), pricing tools, financing schemes, and customer reviews improving access and transparency in the energy supply chain.
- ▶ Partner with fintech companies to integrate pay-as-you-go tools and SME financing offers.

v. Support Incubation of Women and Youth-Led Energy Enterprises

- ▶ Partner with business development service providers to offer business plan coaching, product development, marketing, and financial literacy to women and youth in the energy space.
- ▶ Establish an energy entrepreneurship fund that provides concessional loans and seed funding to qualifying start-ups with inclusive and scalable business models.
- ▶ Provide policy coaching to start-ups to navigate licensing, tax exemptions, and procurement systems.

vi. Expected Outcomes

- ▶ Localized, innovative energy solutions tailored to Ekiti's rural and peri-urban contexts.
- ▶ Increased youth and female participation in the energy innovation ecosystem.
- ▶ Commercialization of research outputs and strengthened links between academia and industry.
- ▶ Emergence of a robust, digital-enabled energy SME market that improves service reach and economic productivity.

19 Sustainability Measures for Capacity Building Framework

19.1 Community Engagement and Accountability Mechanism

Sustainable transformation requires more than top-down implementation, it demands grassroots ownership, open dialogue, and shared responsibility. These can be achieved by establishing the following in the Ekiti State electricity market.

- i. Energy Town Halls and Citizens' Assemblies will be held quarterly across all LGAs and hosted by a joint committee of stakeholders. These inclusive forums will bring together citizens, CSOs, community leaders, youth, women, regulators, and utilities to discuss progress, raise concerns, and co-create solutions. Each town hall will be officially documented and fed into the annual stakeholder scorecard and Energy M&E dashboard.
- ii. A Citizens' Energy Assembly will be established at the state level with equitable representation and advisory input into policy review and strategic planning.
- iii. Public Education and Reorientation Campaigns will be launched to restore hope and trust in the power sector. These will highlight real success stories, teach energy literacy, and promote shared responsibility through media, schools, faith-based platforms, and community influencers.
- iv. A network of Community Energy Champions will be trained to mobilise support, spread accurate information, and model leadership within their communities.
- v. A culture of constructive criticism and contribution will be nurtured, where citizens are encouraged to provide feedback without undermining existing efforts or progress.
- vi. Energy Value Chain Roundtables and Annual Stakeholder Retreats will be hosted to align vision, resolve friction, and encourage cross-sector mentorship.

19.2 Institutional Collaboration

The successful implementation of this capacity-building framework hinges on a well-coordinated institutional ecosystem that ensures ownership, alignment, and synergy across all actors. Each stakeholder has a unique and complementary role to play in translating policy vision into sustained human and institutional development outcomes. The structure of collaboration is built around shared mandates, reinforced communication channels, and a commitment to inclusive, adaptive governance.



A

Key Partners and Roles in Implementing Capacity Building Framework:

i. Ekiti State Electricity Training and Capacity Development Institute (if/when created)

This Institute, once established, will serve as the state's primary platform for technical and vocational training in the electricity sector. It will address workforce gaps, promote local expertise, and support inclusive skills development across the energy value chain.

Key Activities:

- Design and deliver accredited training in smart grids, renewables, metering, and energy auditing.
- Collaborate with NABTEB and national certification bodies to ensure recognised standards.
- Launch and manage the Youth Energy Corps for local technician deployment.
- Operate mobile training labs to reach underserved communities.
- Track certified professionals and advise on workforce trends.
- Provide refresher courses and capacity support to sector agencies.

ii. EKSERB (Ekiti State Electricity Regulatory Bureau)

As the state's independent electricity regulator, in implementing the capacity building framework EKSERB will lead on:

- Developing and enforcing licensing frameworks that embed capacity certification requirements.
- Accrediting training programs delivered by the Ekiti State Electricity Training and Capacity Development Institute (ESET-CDI).
- Monitoring compliance with technical, GESI, and service standards across operators.
- Convening quarterly policy-technical roundtables to gather learning from academia, industry, and communities.

In collaboration with MIPU, EKSERB will also feed sector insights into broader policy reforms and maintain a performance database that tracks technical capacity trends and regulatory compliance.

iii. MIPU (Ministry of Infrastructure and Public Utilities)

MIPU will provide overarching leadership and coordination for:

- The policy and strategic direction of the state's energy market development.
- Hosting the proposed GESI Department, which will work with stakeholders to mainstream inclusive practices into energy planning and implementation.
- Guiding the integration of the capacity-building agenda across ministries (e.g., Education, Innovation, Women Affairs).
- Leading the policy formulation and oversight for the establishment of the Ekiti Centre for Energy Research, Innovation & Entrepreneurship (E-CEIRE).

MIPU will ensure institutional alignment and drive regular inter-ministerial meetings to resolve implementation bottlenecks and assess capacity investment needs.

iv. ESEB/ESEMSD (Ekiti State Electricity Board / Energy Sector Monitoring and Services Department)

These entities will support:

- Deployment and management of energy infrastructure, particularly mini-grids and smart systems.
- Monitoring distribution quality and rural electrification projects.

- Providing technical input to vocational training content based on real-world asset management needs.
- Supplying field data and access points for mobile training labs and Youth Energy Corps assignments.

ESEMSD's field experience and operational data will feed into curriculum development, research priorities at E-CEIRE, and community feedback loops.

v. Education and Research Institutions

Universities, polytechnics, and technical colleges will:

- Serve as key partners for the Ekiti Electricity Training and Capacity Development Institute (ESET-CDI) by aligning curricula with industry needs and certifying instructors.
- Host STEM clubs for girls, talent pipelines, and leadership programs in coordination with the GESI Department.
- Anchor the E-CEIRE, hosting applied research, student placements, and knowledge exchange workshops.

These institutions will formalise partnerships with energy firms and the regulator to ensure that academic training leads to employment or entrepreneurship pathways.

vi. Private Sector and Development Partners

These actors will play a catalytic role by:

- Co-funding innovation challenge funds and provide mentorship and internship opportunities.
- Supporting the rollout of training infrastructure (e.g., mobile labs), smart grid technologies, and metering systems.
- Partnering in the delivery of business incubation and finance access programs for youth- and women-led energy start-ups.

They will also provide input to policy design through their participation in the GESI Advisory Council and the regulatory roundtables hosted by EKSERB.

vii. Local Government Authorities (LGAs) and Community-Based Organizations (CBOs)

These actors are critical for last-mile capacity delivery and community engagement. Their roles include:

- Facilitating access to training beneficiaries, mobilising communities for town halls and youth corps deployment.
- Identifying local care institutions and underserved settlements for inclusive electrification interventions.
- Scaling community-level innovations through micro-finance support, peer networks, and referrals.

CBOs will serve as monitoring agents, flagging gaps in delivery or equity, while LGAs will support data gathering, coordination, and local ownership of the capacity-building strategy.

20 Implementation Roadmap (2025–2030)

The Implementation Roadmap outlines a phased strategy for delivering the Sustainable Capacity Building Framework in Ekiti State over a six-year period. It breaks down the recommended interventions into annual milestones, aligning them with the State's institutional readiness, budget cycles, and priority needs. Beginning in 2025 with foundational reforms such as establishing regulatory structures, launching initial training programs, and setting up stakeholder platforms, the roadmap gradually scales up activities each year. This includes expanding technical training, mainstreaming gender and inclusion, fostering local innovation, and strengthening community engagement. By 2030, the roadmap envisions a fully functional, inclusive, and self-sustaining electricity market, supported by skilled professionals, strong institutions, and active citizen participation.

Table 20-1 Sustainable Capacity Building Framework Roadmap

Key Actions / Milestones		Lead Entities
2025	- Approve EKSERB business & operational plan and initiate regulatory structuring. - Establish GESI Department under MIPU and constitute Gender & Inclusion Advisory Council. - Begin phased planning for ESET-CDI creation (legal framework, partnership mapping). - Begin public education & reorientation campaigns on new electricity market roles. - Roll out initial accredited training in energy auditing & metering. - Launch Youth Energy Corps pilot in 2–3 LGAs. - Initiate development of Integrated Energy Sector Data Platform - Engage donor partners for Innovation Challenge Fund and capacity financing. - Develop detailed costing & annual action plans.	EKSERB, MIPU, MoWASD, MoE, TVET Board, CSOs
2026	- Legally establish ESET-CDI and begin full operation. - Deploy first set of mobile training labs (MTLs) across underserved LGAs. - Begin targeted GESI training for sector agencies and private operators. - Launch STEM clubs and mentorship in 50+ secondary schools. - Initiate research planning for E-CEIRE and partner recruitment. - Host first State Energy Town Hall & Citizens Assembly. - Launch digital Energy Sector Data Platform (beta version). - Pilot Inclusive Electrification Program (10–15 facilities). - First Innovation Hackathon and micro-grant awards.	ESET-CDI, MIPU, EKSERB, MoE, Tertiary Institutions, LGAs

	Key Actions / Milestones	Lead Entities
2027	- Expand Youth Energy Corps to 8+ LGAs. - ESET-CDI launches advanced technical training (smart grid, SCADA, renewables). - Operationalise E-CEIRE; begin applied research programs. - Roll out digital marketplace for SMEs and energy providers. - Scale Innovation Challenge Fund. - Host first Annual Energy Stakeholder Scorecard Session. - Mainstream GESI indicators in utility licensing reviews.	E-CEIRE, ESET-CDI, MoI, EKSERB, Private Sector
2028	- Expand mobile lab coverage to all LGAs. - Conduct review of GESI performance & revise policies. - Launch 2 university–industry R&D partnerships. - Roll out SME Energy Finance program for youth & women. - Expand care-institution electrification to 50+ sites. - Evaluate EKSERB regulatory effectiveness.	MIPU, BOI, Universities, CBOs, EKSERB
2029	- Conduct midterm external evaluation of capacity-building programs. - Introduce refresher and recertification programs. - Document and publish Youth Energy Corps outcomes. - Embed M&E tools across LGAs and implementing agencies. - Update training curricula based on market feedback. - Draft sustainability strategy for post-2030 agenda.	M&E Unit, MIPU, Development Partners, Training Institutions
2030	- Finalize review of full framework outcomes and KPIs. - Scale successful pilots state-wide (e.g., Women in Energy, SME inclusion). - Integrate M&E dashboard into government reporting. - Develop next-generation strategic plan (2030–2040). - Institutionalize Youth Corps within permanent state program. - Host state-wide electricity reform and innovation summit.	MIPU, EKSERB, Executive Council, All Partners



21 Monitoring & Evaluation (M&E)

Ekiti State Electricity Capacity Building Framework Theory of Change

This framework outlines how strategic investments in people, institutions, and inclusive systems will transform Ekiti's electricity sector into a resilient and locally managed market, it links short-term action with long-term and people-centred impact. Also, on the table are KPIs to track progress at each stage from number of trained professionals and electrified institutions to policy reforms and public satisfaction.

Table 21-1 Monitoring & Evaluation

 Problem Statement		The State lacks the foundational capacity skilled workforce, regulatory systems, data platforms, community awareness, and inclusive structures required to develop and sustain a functioning electricity market that delivers equitable and reliable access			
Inputs	Activities	Outputs	Short-Term Outcomes	Mid-Term Outcomes	Long-Term Outcomes
• Human resources (technical trainers, engineers, policy experts) • Facilities (training centers, mobile labs) • Technology (data platforms, e-learning tools) • Curriculum (certified vocational modules) • Financial resources (state budget, donor funds) • Political and institutional support Etc.	• Establish EKSERB and ESET-CDI • Conduct accredited training across electricity value chain • Deploy mobile training labs • Launch Youth Energy Corps • Deliver GESI fellowships, training & advisory council • Develop energy innovation research center (E-CEIRE) • Hold citizen assemblies and energy literacy campaigns	• Number of trained professionals certified • Youth Energy Corps launched • GESI Department operational • Digital data & energy platform developed • Challenge funds and SME incubation programs launched	• Improved knowledge, technical skills, and job-readiness among youth and women • Increased awareness and participation in energy governance • More inclusive, data-driven policy design and feedback systems	• Changes in behaviour of institutions: more gender-responsive policies, greater inter-agency coordination • Sustainable employment, stronger entrepreneurship in energy services • Improved service delivery, community-level maintenance, and local innovation adoption	• Resilient electricity market institutions with regulatory autonomy and inclusive practices • Reliable and equitable energy access across LGAs • Gender-equitable representation in leadership and enterprise • Institutionalized local innovation ecosystems • Expanded energy-based livelihoods for youth and women

Indicators of change

- Number of certified professionals trained
- The reach of the Youth Energy Corps across all LGAs
- Deployment of mobile training labs
- Establishment of STEM clubs in secondary schools
- Inclusion of gender and SME criteria in licensing processes
- The number of women and youth-led energy enterprises supported.
- Rate of trainees
- Adoption of inclusive practices by energy institutions
- The level of citizen awareness and engagement with energy reforms and rights.
- The extent to which policies are influenced by data or stakeholder input
- The number of electrified care institutions in underserved LGAs
- The formal integration of stakeholder feedback into sector decisions.
- Women's participation in energy sector leadership,
- Improvements in household and institutional electricity access
- Consistent utility evaluations based on performance and inclusivity,
- High satisfaction ratings from citizens and stakeholders.



Impact

The ultimate impact of this capacity-building framework is the creation of a resilient, inclusive, and locally managed electricity market that delivers reliable, equitable, and sustainable power access to all communities in Ekiti State. This will drive economic opportunity, foster innovation, improve public service delivery, and serve as a replicable model for decentralized energy reform in Nigeria.



22 Funding Mechanisms

To successfully implement the capacity-building framework, a diversified and targeted funding strategy is required. This strategy will combine state budget commitments, development partner financing, and private sector contributions, ensuring sustainability, innovation, and ownership at all levels.

Table 22-1 Funding Mechanisms for Capacity Building

SN	Action/Program	Proposed Funding Mechanism	Estimated Cost (USD)
1	Finalise & operationalise EKSERB Business Plan	State budget, technical assistance (e.g., GIZ, EU)	\$250,000 – \$400,000
2	Establish Energy Market Capacity Development Hub (ESET-CDI)	AfDB, World Bank, TETFund, state co-funding	\$1.2 – \$2.5 million (setup + yr 1)
3	Deploy Mobile Training Labs (solar-powered trailers, staff, materials)	RBF, CSR, development partner co-financing	\$250,000 – \$400,000 per unit
4	Launch Youth Energy Corps Program (training, stipends, tools, logistics)	N-Power linkages, AfDB, NYSC, State/Local budget matching	\$700,000 – \$1.2 million/year
5	STEM Clubs for Girls + Energy Innovation Clubs in Schools	UNICEF, education ministries, tech CSR (e.g., MTN Foundation)	\$100,000 – \$180,000/year
6	Energy Sector Data Platform (design, hosting, updates, training)	ICT grants, BMGF, Gates Policy Data Fund, state digital economy budget	\$250,000 – \$400,000 (setup)
7	GESI Dept. + Gender Advisory Council + Training + Inclusion Tools	UN Women, Ford Foundation, state MoWASD budget	\$300,000 – \$600,000
8	Electrification of care institutions (100–150 schools/clinics, 3 years)	Green bonds, REA co-financing, SDG budget line	\$5 million – \$8 million
9	Innovation Challenge Fund (hackathons, demo grants, mentoring)	AFD, AfDB, World Bank Innovation, IHS Nigeria Foundation	\$350,000 – \$500,000/year
10	SME Incubation & Access to Finance for Women and Youth	Blended finance (SMEDAN, BOI, Bank of Industry), donor catalytic grants	\$500,000 – \$1 million
11	University–Industry R&D Partnerships (3–5 projects over 3 years)	TETFund, Shell/NNPC JV, African Research Grant Consortium	\$500,000 – \$1.2 million (total)
12	Digital Marketplace for Energy Services	CSR tech partners (Google, Airtel, MTN), Carbon Finance & Marketplace funds	\$300,000 – \$600,000 (setup + Yr 1)
13	Independent M&E + Annual Scorecard + Stakeholder Reviews	Donor funding, state policy support budget	\$180,000 – \$300,000/year

22.1 Core Funding Mechanisms to Leverage

- i. State Budget Allocations (Ringfenced)**
To ensure baseline investment and ownership, Ekiti State will allocate dedicated funding within the infrastructure and education budgets for training and institutional strengthening.
- ii. Multilateral and Bilateral Donor Grants**
Grants from the World Bank, AfDB, AFD, GIZ, and USAID will support technical assistance, innovation, gender integration, and research.
- iii. Results-Based Financing (RBF)**
Donors and federal partners (e.g., REA) can link disbursements to the achievement of verified outputs such as number of trained professionals, electrified care institutions, or women-owned SMEs supported.
- iv. Green Bonds and Climate Finance**
For projects with direct environmental impact (e.g., solar microgrids, energy-efficient infrastructure), green bonds and ESG-aligned investment instruments will be explored.
- v. Private Sector-Led Endowments and CSR**
Local and national companies will be engaged to fund scholarships, community programs, and infrastructure support through endowments and tax-incentivized CSR.
- vi. Innovation and Digital Inclusion Funds**
Programs such as Google.org, Mastercard Foundation, and regional innovation funds will be approached for tech-based projects, including digital learning, entrepreneurship, and data systems.

23 Conclusion

Sustainable transformation of Ekiti State's electricity sector is a generational effort one that must be anchored in intentionality, consistency, and a culture of mentorship. It might seem ambitious or even cumbersome at first glance, but with strategic prioritisation, phased implementation, and a steady focus on the long-term vision, the pieces will come together. Progress will be made not by rushing, but by biting gradually into each component while never losing sight of the bigger picture or settling for less. True and lasting change requires more than just infrastructure and technical skills, it calls for a spirit of excellence passed down through individuals and institutions, shaping a future that is both competent and compassionate.

Gender equity and social inclusion are not optional add-ons; they are central to building a people-Centered electricity market. Inclusion should be accepted and practiced by every government, private sector, communities, and individuals as a shared duty. Constructive contributions, openness to feedback, and a willingness to evolve are essential to building on the gains already made. The people of Ekiti State deserve not only light in their homes, but clarity in governance, opportunity in enterprise, and justice in access.

Section

04



Pipeline of Bankable Renewable Energy Projects in Ekiti State



24 Market Overview: Demand & Supply

The unmet demand, especially in urban LGAs like Ado-Ekiti and industrial corridors such as Ikole and Aiyekire (Gbonyin), reflects both suppressed consumption and lack of infrastructure. The renewable energy project pipeline was developed as a strategic response to this challenge. It prioritises utility-scale solar for grid injection, captive and embedded generation for agro-industrial users, rural mini-grids to address energy poverty, and biomass plants to valorize waste. These projects are deliberately mapped to areas with high latent demand, poor supply reliability, and existing infrastructure potential, ensuring that each project directly contributes to closing the state's power gap.

Demand, Supply, and Infrastructure Utilisation



Current Demand (2025):
~569 MW;
projected to 711 MW by 2035.



Current On-grid Supply:
~21 MW from the national grid.



Off-grid Installed Capacity:
~24.5 MW from local gas and solar projects.



Transmission Capacity:
300 MVA, but underutilised due to allocation constraints.



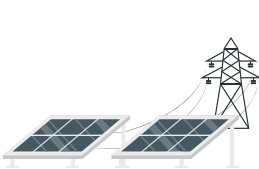
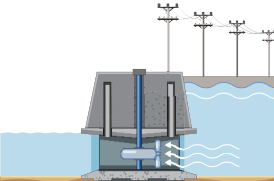
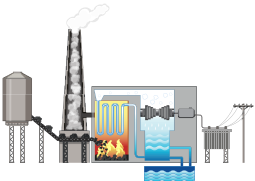
Distribution Capacity:
~46 MW; over 75% utilised, with metering penetration at 22%.



25 Renewable Energy Resource Summary

Ekiti State possesses significant untapped renewable energy potential, with an estimated total capacity of 5,437 MW across various resources. Currently, there is no existing installed capacity, presenting a substantial opportunity for development. The resource summary is detailed in the table below.

Table 25-1 Ekiti Renewable energy resource summary

	 Solar	 Hydro	 Biomass
Renewable Energy Type			
Estimated Potential (MW)	338	338	4,829
Existing Installed Capacity (MW)	0	0	0
Key Locations	Ekiti East, Aiyekire(Gbonyin)	Itapaji, Ero, Ogbese Dams	State-wide (based on agro- industrial waste)

25.1 Off-Grid Electricity Access Across Local Government Areas (LGAs) In Ekiti State

This sub-section presents a summary of the data-driven analysis conducted on off-grid electricity access across Local Government Areas (LGAs) in Ekiti State. The findings are based on geospatial and infrastructure data covering key variables such as population, building density, proximity to grid infrastructure, institutional presence, agricultural activity, and dominant crops derived from the Rural Electricity Agency.

Purpose of the Analysis: The objective was to assess and prioritise LGAs for electrification interventions based on:

- 1** Population currently without access to electricity
- 2** Renewable energy resource potential
- 3** Demand potential for electricity, including household, institutional, commercial, and agricultural use

Dataset and Indicators: The analysis is drawn from a dataset comprising 158 off-grid site observations across all LGAs in Ekiti State provided by the Rural Electrification Agency. The following indicators were computed and aggregated at the LGA level:

Table 25-2 off-grid Dataset Indicators for Ekiti LGAs

Indicator	Description
Population	Total population of surveyed off-grid sites in the LGA
Number of Buildings	Sum of buildings at off-grid locations – proxy for residential and commercial activity
Education Facilities	Total number of schools or learning centers in the sampled sites
Healthcare Facilities	Number of health facilities, indicating essential service delivery points
Total Agricultural Area [ha]	Combined agricultural land size in hectares – relevant for productive use of electricity
Sites with Mobile Towers	Count of locations with mobile towers, indicating telecom demand and digital connectivity
Average Distance to Grid [km]	Mean distance to the nearest electricity distribution line, used as a proxy for grid access
Top Five Dominant Crops	Most common crops in each LGA, relevant for biomass potential and Agro-based energy use
Sites Likely Unconnected	Number of sites located more than 5 km from the grid, assumed to be unconnected
Biomass Potential Sites	Count of sites with high agricultural activity and relevant crops (e.g., oil palm, cassava)
Average Demand Score (0–3)	Composite score based on the presence of schools, health centers, and building density



Table 25-3 infrastructure data for off-grid LGAs in Ekiti

LGA	Popula- tion_x	Number of build- ings	Education facilities	Health- care facilities	Total ag- ricultural area [ha]	Sites with mobile towers	Avg. dis- tance to grid [km]
Ado-Ekiti	665.83	154	1	1	47,470.36	0	3.61
Ekiti East	1315.23	389	3	1	37,892.01	1	3.04
Ekiti South- West	4189.55	957	10	9	121,133.69	0	3.45
Ekiti West	3709.63	854	9	5	131,109.50	0	3.36
Emure	4695.42	1095	8	7	239,168.81	0	4.01
Aiyekire (Gboyin)	2646.04	626	5	2	155,101.42	0	3.12
Ido-Osi	69.49	27	0	0	11,944.80	0	2.13
Ijero	3130.96	897	17	5	227,856.16	1	3.29
Ikere	90.80	21	0	0	12,257.13	0	6.02
Ikole	6999.88	1597	10	2	248,368.28	0	3.78
Irepodun/ Ifelodun	886.33	202	5	3	47,470.36	0	2.17
Ise /Orun	3272.95	742	12	7	188,338.73	0	3.20
Moba	1746.73	400	8	5	84,320.60	0	4.23
Oye	765.27	176	0	0	34,873.64	0	3.21

Table 25-4 Energy Access, Infrastructure & Demand of Off-Grid LGAs in Ekiti

LGA	Top five dominant crops	Popula- tion_y	Sites likely unconnected	Biomass potential sites	Avg. demand score (0-3)
Ado-Ekiti	oilpalm, yams, cocoa, cassava, maize	665.83	0	4	1.00
Ekiti East	yams, cocoa, oilpalm, cassava, maize	1315.23	1	0	1.25
Ekiti South-West	oilpalm, yams, cocoa, cassava, maize	4189.55	0	10	2.40

Ekiti West	oilpalm, yams, cocoa, cassava, maize	3709.63	0	11	2.18
Emure	oilpalm, yams, cocoa, cassava, maize	4695.42	8	0	1.27
Aiyekire (Gboyin)	oilpalm, yams, cocoa, cassava, maize	2646.04	0	0	0.79
Ido-Osi	oilpalm, yams, cocoa, cassava, maize	69.49	0	1	0.00
Ijero	yams, oilpalm, cocoa, cassava, maize	3130.96	1	19	1.26
Ikere	oilpalm, yams, cocoa, cassava, maize	90.80	1	1	0.00
Ikole	yams, oilpalm, cocoa, cassava, maize	6999.88	5	0	0.58
Irepodun/Ifelo- dun	oilpalm, yams, cocoa, cassava, maize	886.33	0	4	2.25
Ise /Orun	oilpalm, yams, cocoa, cassava, maize	3272.95	1	1	1.41
Moba	yams, oilpalm, cocoa, cassava, maize	1746.73	0	7	1.71
Oye	oilpalm, yams, cassava, cocoa, maize	765.27	1	0	0.50

Key insights for electrification planning

► **Population Without Access:**

LGAs like Emure, Ijero, Ikole and Ise/Orun with a high number of unconnected sites and significant population figures represent priority zones for electrification.

► **Renewable Energy Potential:**

Biomass feasibility is inferred from large agricultural areas and dominant crops. All off-grid locations were assumed viable for solar PV deployment, especially where distance from the grid exceeds 5 km like Ikere.

► **Demand Potential:**

The average demand score reflects the presence of social infrastructure and population

density, helping to identify LGAs with high electricity usage potential such as Ekiti South-West, Irepodun/Ifelodun, Ekiti West, Moba and Ise/Orun

► **Telecom Infrastructure:**

The presence of mobile towers in Ekiti east and Ijero is an enabler for digital services and remote energy monitoring systems.

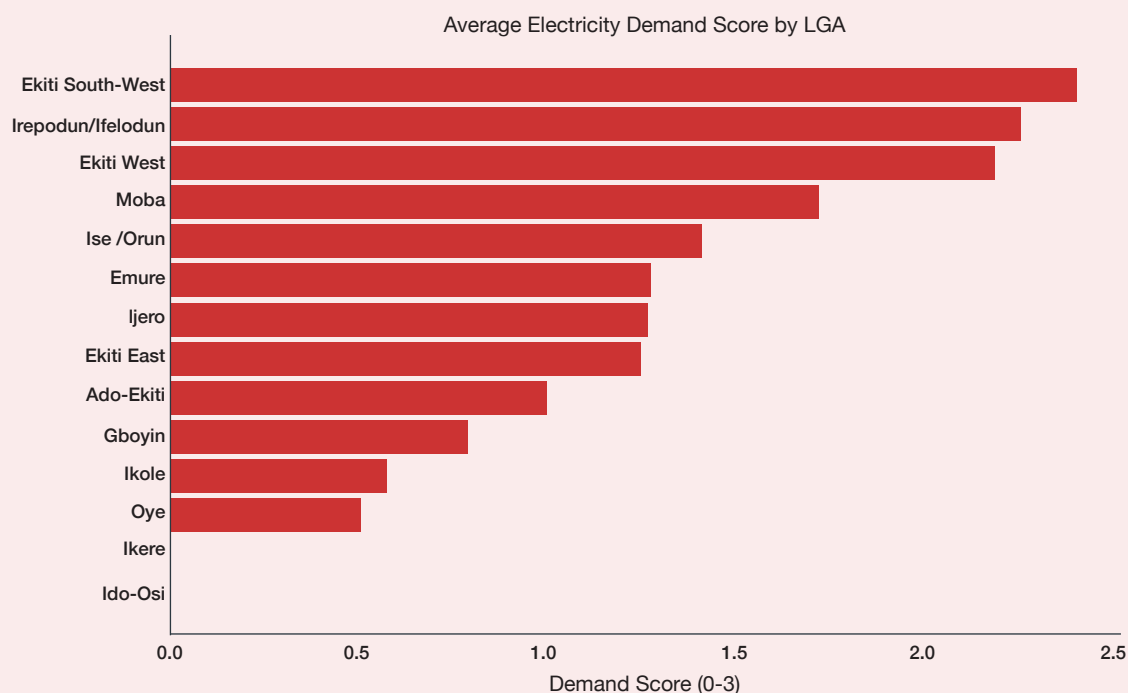


Figure 1 Average Electricity Demand Score by LGA (off-grid)

Implications for electrification interventions:

This analysis supports strategic decisions on the appropriate electrification pathway per LGA:

- Off-grid solar home systems for remote and low-demand areas like Ikare, Ido-Osi, Oye, and Aiyekire (Gboyin)
- Mini-grids for high-demand, yet unserved clusters with productive use potential like Ijero, Ise/Orun, Ekiti East, Ado-Ekiti, Emure, Ekiti South-West and Ekiti West
- Grid extension for locations near existing lines with strong demand indicators like Irepodun/Ifelodun, Ekiti West, Ekiti South-West and Moba



26 Investment Archetypes & Funding Mechanisms

This section outlines key investment archetypes and their potential funding mechanisms for the energy sector. It identifies Independent Power Producers (IPPs), embedded/captive generation, mini-grid operators, and Public-Private Partnerships (PPPs) as the primary investment models. To finance these, a diverse range of sources are available, including multilateral banks (AfDB, WB, AFD), climate-focused funds (SREP, GCF, CIF), private equity, Development Finance Institutions (DFIs), State Infrastructure Funds, Green Bonds, and blended finance solutions.

A

Investment Archetypes:

- Independent Power Producers (IPPs)
- Embedded generation/Captive power
- Mini-grid operators
- Public-Private Partnerships (PPPs)

B

Potential Funding Sources:

- Multilateral Banks: AfDB, WB, AFD (via SREP, GCF, CIF)
- Climate Investment Funds (CIF)
- Private equity & impact investors
- Development Finance Institutions (DFIs)
- State Infrastructure Funds
- Green Bonds & Blended Finance

27 Project Pipeline Table

This project timeline details a comprehensive portfolio of energy initiatives across Ekiti State, focusing on leveraging its significant solar, hydro, and biomass potential. The projects, ranging from large-scale solar parks and hydro retrofits to decentralized mini-grids and Agro-waste-to-energy plants, are primarily spearheaded by the Ekiti State Government through agencies like EKDIPA, often in collaboration with federal bodies. These endeavours aim to substantially increase power generation capacity, improve electricity access for both urban and rural populations, support agricultural and industrial development, and drive economic growth across various locations within the state.



Table 27-1 Bankable renewable energy projects in Ekiti state

S/N	Project Title	Description	Capacity (MW)	Location	Impact	Investment Size (USD)	Duration
1	Ekiti East Solar Park	Utility-scale PV on 150 ha of land at Isinbode Project Owner/Proponent: Likely Ekiti State Government, with facilitation by the Ekiti Development and Investment Promotion Agency (EKDIPA). Stage: Feasibility Government Agency Involved: EKDIPA, Ministry of Energy and relevant MDAs	193	Ekiti East	320 GWh/year; 100,000 people	\$160M	24 months
2	Aiyekire (Gbonyin) Solar Farm	Grid-connected PV plant, co-located with an Agro cluster Project Owner/Proponent: Ekiti State Government, through EKDIPA. Stage: TBD Government Agency Involved: EKDIPA	145	Aiyekire (Gbonyin)	250 GWh/year; 70,000 people	\$120M	20 months

S/N	Project Title	Description	Capacity (MW)	Location	Impact	Investment Size (USD)	Duration
3	Ogbese Hydro Project	Hydro from multipurpose dam; 74 MCM reservoir Project Owner/Proponent: Federal Government of Nigeria (originally), through the Federal Ministry of Water Resources. Stage: Construction (70% complete as of August 2024); turbines and hydropower components ready for installation. Government Agency Involved: Federal Ministry of Water Resources; potential state-level coordination with EKDIPA	4	Ido/Osi	28 GWh/year; 25,000 people	\$10M	18 months
4	Itapaji Small Hydro	Run-of-river system; retrofit for electricity Project Owner/Proponent: Ekiti State Government. Stage: Feasibility/Design Government Agency Involved: EKDIPA, Ministry of Energy.	0.206	Ikole	1.5 GWh/year; local supply	\$0.8M	12 months
5	Ado-Ekiti Biomass Plant	Cassava peels, wood, and rice husk gasification Project Owner/Proponent: Ekiti State Government, through EKDIPA. Stage: TBD Government Agency Involved: EKDIPA, Ministry of Environment, Ministry of Energy	5	Ado-Ekiti	35 GWh/year; 15,000 people	\$15M	18 months



S/N	Project Title	Description	Capacity (MW)	Location	Impact	Investment Size (USD)	Duration
6	Ijero Agro-Waste WTE	Biomass-fed hybrid generator using agro-industrial waste. Project Owner/Proponent: Ekiti State Government, via EKDIPA. Stage: TBD Government Agency Involved: EKDIPA, Ministry of Agriculture, Ministry of Energy.	3	Ijero	20 GWh/year; 10,000 people	\$9M	16 months
7	SAPZ Captive Solar & Biogas	24/7 hybrid mini-grid for agro-processing zone Project Owner/Proponent: Ekiti State Government, through EKDIPA. Stage: Feasibility/Concept (as part of the Ekiti Special Agro-Industrial Processing Zone, SAPZ; ESIA completed in 2022) Government Agency Involved: EKDIPA, Ministry of Agriculture, Ministry of Energy.	10	Ikole SAPZ	Supports 300+ SMEs	\$25M	24 months
8	Rural Mini-Grids Cluster (10 sites)	Decentralized solar mini-grids for rural LGAs Project Owner/Proponent: Ekiti State Government, via EKDIPA. Stage: TBD Government Agency Involved: EKDIPA, Ministry of Energy.	0.1 each	Ilejemeje, Ekiti East, Efon, others	1,500–2,000 households each	\$7M (total)	12–18 months

S/N	Project Title	Description	Capacity (MW)	Location	Impact	Investment Size (USD)	Duration
9	E-HEART Solar Installations	Solar for 100 health centres, schools, and mobility hubs Project Owner/Proponent: Ekiti State Government, through EKDIPA. Stage: TBD Government Agency Involved: EKDIPA, Ministry of Energy.	2 (aggregate)	State-wide	200 institutions; e-mobility pilots	\$6M	12 months
10	Design of Iyemero Earth Dam & 5MW Power	Development & construction of Dam and small hydropower development for agro-industrial. Project Owner/Proponent: Ekiti State Government, possibly in collaboration with Federal agencies. Stage: Design Government Agency Involved: EKDIPA, Ministry of Water Resources, Ministry of Energy.	5	Iyemero Village, Ikole Local Government Area, Ekiti State , Nigeria	Irrigation support for 150–206 hectares of farmland	TBD	TBD

28 Bankability Profiles For Ekiti State Renewable Energy Projects

Ekiti State's renewable energy project pipeline presents a well-structured portfolio of diversified, scalable, and impact-driven investments that align with both state development priorities and the mandates of climate-aligned financiers. The projects span across solar PV, biomass, small hydro, and hybrid mini-grid technologies, each strategically positioned to serve identified demand centres and close critical energy access gaps.

Each project is promoted or facilitated by the Ekiti State Government through EKDIPA, with clear involvement of relevant ministries (Energy, Environment, Agriculture, Water Resources). This provides investors with a stable enabling environment, supported by the new Ekiti Electricity Law and proactive state-level licensing of electricity projects.

From a bankability perspective:

Projects such as the Ekiti East Solar Park (193 MW) and Aiyekire(Gbonyin) Solar Farm (145 MW) offer utility-scale investment opportunities for large-scale off-take. These are positioned near underutilised transmission infrastructure, enhancing viability for long-term Power Purchase Agreements (PPAs).

Mid-scale industrial solutions like the SAPZ Captive Solar & Biogas (10 MW) and Ado-Ekiti Biomass Plant (5 MW) are designed to support value-added production, which aligns with donor and DFI goals of powering productive use and enhancing rural economies.

Smaller, distributed solutions such as the Rural Mini-Grids Cluster and the E-HEART institutional solar rollout address both suppressed demand and public service reliability, and are eligible for results-based financing, blended capital, and climate impact grants.

28.1 Project-Specific Profiles and Partnership Opportunities for Priority Renewable Energy Projects in Ekiti State

I. Aiyekire(Gbonyin) Solar Farm

- ▶ **Project Description:** Proposed grid-connected solar PV farm in Aiyekire(Gbonyin) LGA with a capacity estimate of 145 MW.
- ▶ **Potential Sources of Funding:**
 - Green Climate Fund (GCF)
 - InfraCredit Nigeria
 - African Development Bank (AfDB) Renewable Energy Fund
 - Private equity from clean energy firms
- ▶ **Potential Partnerships:**
 - REA (Rural Electrification Agency)
 - Power Africa/USAID
 - Local EPC contractors and international solar IPPs



II. Ekiti East Solar Park

- ▶ **Project Description:** Large-scale solar generation park, intended to support rural industrial zones. (193 MW)
- ▶ **Potential Sources of Funding:**
 - Nigerian Sovereign Investment Authority (NSIA)
 - ECOWAS Renewable Energy Facility (EREF)
 - World Bank Nigeria Electrification Project (NEP)
- ▶ **Potential Partnerships:**
 - Transmission Company of Nigeria (TCN)
 - Local solar technology suppliers
 - Sustainable Energy for All (SEforALL)

III. Ado-Ekiti Biomass Plant

- ▶ **Project Description:** Biomass energy plant using agricultural and forestry residues for power generation (5 MW).
- ▶ **Potential Sources of Funding:**
 - Clean Technology Fund (CTF)
 - Nigerian Green Bond Programme
 - Agribusiness-linked investors (e.g., IFC Agribusiness)
- ▶ **Potential Partnerships:**
 - Ministry of Agriculture, Ekiti
 - Agricultural cooperatives
 - Research institutions (e.g., FUTA, UNAD)

IV. Ijero Agro-Waste (WTE)

- ▶ **Project Description:** Biomass-fed hybrid generator using agro-industrial waste (3 MW)
- ▶ **Potential Sources of Funding:**
 - Global Environment Facility (GEF)
 - UNIDO clean energy grants
 - Blended finance via PIDG
- ▶ **Potential Partnerships:**
 - Ekiti Waste Management Agency
 - NGOs promoting circular economy
 - Technology firms in anaerobic digestion or pyrolysis

V. SAPZ Captive Solar & Biogas Project

- ▶ **Project Description:** Embedded solar/biogas hybrid systems for Special Agro-Processing Zones in Ekiti. (10 MW)
- ▶ **Potential Sources of Funding:**
 - African Development Bank (SAPZ program)
 - USTDA project prep grants
 - Local financial institutions through DFI guarantees
- ▶ **Potential Partnerships:**
 - Ekiti State SAPZ Committee
 - Nigerian Investment Promotion Commission (NIPC)
 - Energy-as-a-Service (EaaS) providers

VI. Rural Mini-Grids Cluster (10 Sites)

- ▶ **Project Description:** A cluster of solar mini-grids (100 kW each) targeting energy-poor communities.
- ▶ **Potential Sources of Funding:**

- Nigeria Electrification Project (NEP)
- CrossBoundary Energy Access Fund
- Rural Electrification Fund (REF)

▶ **Potential Partnerships:**

- Local cooperatives and CBOs
- Mini-grid developers like Havenhill, A4&T
- REA and state energy boards

VII. E-HEART Solar Installations

▶ **Project Description:** Solar for 100 health centers, schools, and mobility hubs (2 MW)

▶ **Potential Sources of Funding:**

- BOI Solar Energy Fund
- Local commercial banks via CBN REFIT
- Pay-as-you-go (PAYGo) operators

▶ **Potential Partnerships:**

- Local energy cooperatives
- Solar home system (SHS) firms like Lumos, BBOXX
- Financial tech providers for PAYGo integration



29 Project-Specific Risk & Mitigation Profiles

The table below outlines project-specific risk mitigation strategies for addressing potential challenges across policy, technical, market, financial, and environmental/social domains. For each project, including solar parks, biomass plants, hydro projects, and solar installations for health centers, tailored strategies are proposed. These include securing long-term Power Purchase Agreements (PPAs) with guarantees, utilising proven technologies, implementing robust O&M contracts, engaging communities for social license, offering financial incentives like tax holidays and Viability Gap Funding (VGF), and ensuring compliance with environmental and social impact assessments. The comprehensive approach aims to de-risk investments and ensure the successful and sustainable implementation of these critical energy projects.



Table 29-1 Project-specific risk mitigation strategies

S/N	Project	Key Risks	Mitigation Strategies
1	Ekiti East Solar Park	Policy/Regulatory: Changes in energy tariffs, licensing delays, or shifts in renewable energy policy. Technical: Solar resource variability, grid integration challenges, equipment failure. Market: Off-taker risk (inability of utility or anchor clients to pay), low demand. Financial: Currency fluctuation, interest rate hikes, and delayed payments. Environmental/Social: Land acquisition disputes, community opposition.	• Long-term Power Purchase Agreements (PPAs) with creditworthy off-takers, backed by state guarantees or partial risk guarantees. • Use of proven solar technologies, robust O&M contracts, and insurance for equipment and business interruption. • Tariff indexation to hedge against inflation and currency risk. • Community engagement and benefit-sharing schemes to ensure social license. • Fast-track permitting and access to state-provided incentives, including tax holidays and duty waivers. • Eligibility for Viability Gap Funding if project revenues are insufficient for commercial bankability.
2	Aiyekire (Gbonyin) Solar Farm	Policy/Regulatory: Delays in permits, changes in rural electrification policy. Technical: Equipment quality, maintenance capacity. Market: Payment default by rural mini-grid customers, low uptake. Financial: Inadequate revenue, high upfront costs.	• Secure mini-grid licenses and permits with support from EKDIPA and REA. • Aggregated procurement and standardized contracts to ensure quality and reduce costs. • Blended finance and results-based grants to offset capital expenditure. • Community engagement and local capacity building for O&M. • Tax breaks and customs exemptions under EKDIPA Law. • Access to state land and streamlined approval processes.

3	Ado-Ekiti Bio-mass Plant	Policy/Regulatory: Uncertainty in waste management regulations, feed-in tariff changes. Technical: Feedstock supply variability, technology failure. Market: Off-take risk for power and bio-products. Financial: Volatile feedstock prices, revenue shortfall.	- Secure long-term feedstock supply contracts with local agro-processors and waste aggregators. - Use modular, proven biomass/biogas technologies; insurance for plant downtime. - Government support for offtake agreements and minimum revenue guarantees. - Eligibility for tax holidays, duty waivers, and potential VGF1. - Environmental and Social Impact Assessment (ESIA) as mandated by PPP Manual.
4	Ijero Agro-Waste WTE	Policy/Regulatory: Inconsistent waste collection policy, licensing delays. Technical: Waste composition variability, technology adaptation. Market: Low willingness to pay for WTE power, unreliable waste supply. Financial: High capital costs, uncertain returns.	- State-facilitated waste supply agreements with local farms and markets. - Modular plant design and phased investment to limit exposure. - Output-based aid or VGF to ensure minimum returns. - Access to state incentives: tax holidays, land provision, and customs waivers. - Community engagement and ESIA compliance.
5	Itapaji Small Hydro	Policy/Regulatory: Water rights, environmental permitting, regulatory changes. Technical: Hydrological risk (low water flow), dam safety. Market: Limited local demand, off-taker risk. Financial: High rehabilitation costs, long payback period.	- Secure long-term water rights and operational licenses with EKDIPA support. - Government-backed minimum revenue guarantees or take-or-pay contracts. - Insurance for hydrological and dam failure risks. - Eligibility for VGF and tax incentives under state law. - Stakeholder engagement and ESIA as required by the PPP Manual.



6 E-HEART Solar Installations

Policy/Regulatory: Delays in permits, changes in WASH sector policy.

Technical: Installation quality, maintenance lapses.

Market: Affordability constraints for end-users.

Financial: Sustainability of payment models, grant dependency.

- Aggregated procurement and standardized installation contracts.
- Community training for O&M, supported by NGOs and local government.
- Access to grants (e.g., SURWASH), tax breaks, and state land.
- Monitoring and evaluation frameworks for performance and impact.



30 Conclusion

Ekiti State presents a compelling case for renewable energy investments, combining abundant resources with targeted demand clusters, enabling legislation (EKEPSL 2023), and fiscal incentives. This pipeline outlines investable projects across solar, hydro, and biomass technologies, backed by realistic data and impact metrics. Blended finance models, private sector partnerships, and development finance support will be critical to actualizing this vision and unlocking inclusive economic growth.

Section

05



**Policy Gaps and Strategic
Policy Options for Ekiti State
Electricity Market**





31 Identified Policy Gaps

Despite the enactment of the Ekiti State Electricity Power Sector Law and the establishment of EKSERB, several regulatory, institutional, and operational gaps remain that could hinder the development of a sustainable and inclusive electricity market. Addressing these gaps is critical to ensuring effective governance, attracting private investment, and delivering reliable, affordable, and equitable electricity services across the state. The table below outlines some of the key challenges:

Table 31-1 Identified policy gaps

S/N	Thematic Area	Identified Gap	Impact
1	Federal-State Regulatory Interface	The Electricity Act 2023 grants states regulatory authority over intra-state electricity, but overlapping jurisdiction with NERC (e.g., licensing, tariffs, service standards) creates regulatory ambiguity.	Conflicting directives, project delays, and investor uncertainty undermine EKSERB's autonomy and slow reforms.
2	Consumer Protection and Social Tariff Framework	Absence of a structured social tariff policy or subsidy scheme for low-income and vulnerable groups under a cost-reflective regime.	Increased energy poverty, risk of energy theft, and exclusion of vulnerable populations from equitable market participation.
3	Renewable Energy and Decentralised Electrification	Lack of a dedicated regulatory framework for mini-grids, embedded generation, and renewable energy zones despite their importance for off-grid areas.	Investment deterrence, delayed project implementation, and continued reliance on public sector electrification.
4	Environmental and Social Governance (ESG) Standards	ESG standards, including environmental safeguards and gender and social inclusion (GESI), are not integrated into licensing or project monitoring.	Environmental and social risks, weak public trust, and reputational harm to the regulatory framework.
5	Legacy Debts and Stranded Assets	No policy exists for managing liabilities or abandoned infrastructure from defunct DisCos or licensees.	Legal and financial risks for new investors; unresolved debts discourage market re-entry and reduce investor confidence.
6	Market Development Pathway	Lack of a clear roadmap to guide Ekiti's transition from a vertically integrated/single-buyer market to a competitive, multi-actor electricity market.	Strategic uncertainty, inconsistent licensing practices, and delay in private sector-led investment decisions.
7	Institutional Capacity and Regulatory Independence	EKSERB is currently under-resourced, lacking sufficient staff, operational processes, digital tools, and sustainable financial mechanisms.	Weak enforcement capability, poor stakeholder coordination, and limited credibility of the regulator.

S/N	Thematic Area	Identified Gap	Impact
8	Cross-Border Electricity Trade	No framework exists for regulating or enabling electricity trade between Ekiti and other states or entities.	Limits opportunities for power import/export, regional cooperation, and broader market integration.
9	Regulatory Autonomy and Funding	EKSERB lacks financial independence; law does not clarify how its fund is administered or who benefits from it.	Compromises regulatory neutrality, deters investor confidence, and affects long-term sustainability.
10	Legal and Regulatory Framework Design	EKEPSL 2023 is silent on core regulatory governance structures, decision-making processes, and roles of sub-entities like ESEMSD and State Taskforce.	Leads to unclear mandates, overlaps in functions, and weak enforcement of regulation.
11	Market Transition Design	Absence of clearly defined transition triggers for moving from a vertically integrated model to a competitive market (e.g., metering or GenCo thresholds).	Strategic drift, regulatory uncertainty, and fragmented market growth.
12	Executive Role in Sector Governance	Law gives excessive operational influence to the Governor and Commissioner, including approval of regulations and task assignments.	Weakens regulatory independence and blurs lines between policy formulation and market operation.
13	Cluster Offtake Units (COUs)	Implementation gaps in demand assessment and minimum service standards enforcement for COUs.	Hinders effective decentralised electrification and weakens COU-based investment models.
14	Compliance & Enforcement	No integrated enforcement framework for energy theft, meter bypass, and other offences; no mobile utility courts or technical standards enforcement.	Persistent revenue losses, customer dissatisfaction, and high incidence of theft.
15	Metering and Data Infrastructure	Only 22% metering penetration as of March 2025; absence of a digital monitoring platform for metering and auditing.	Revenue leakage, inaccurate billing, and weak consumer trust.
16	Role of State-Owned Utilities	Unclear delineation of roles between ESEB (asset owner) and Ile Iyi Electric Power Company (state's commercial interface).	Role ambiguity, accountability gaps, and inefficient asset use or commercial arrangements.
17	Energy Efficiency and Standards	MIPU has not activated its statutory duties to enforce Energy Efficiency Compliance Certification (EECC) or set regulatory fees for energy appliances.	Loss of regulatory control over appliance standards and missed opportunities for demand-side management and energy savings.



S/N	Thematic Area	Identified Gap	Impact
18	Framework for Integrated Resource Planning (IRP)	Absence of a formal IRP process to guide sector-wide planning, investment, and procurement decisions.	Uncoordinated sector growth, suboptimal infrastructure deployment, and inefficient resource use.

32 Strategic Policy Recommendation

The table below provides a summary of the strategic policy recommendations for the development of Ekiti State electricity market. Each policy action is accompanied by a clear justification, regulatory requirements, and an indicative timeline to facilitate effective planning, coordination, and execution across government, regulatory bodies, and private sector actors. These measures are designed to align with the provisions of the Ekiti State Electricity Power Sector Law 2023 and support the phased rollout of the State Electricity Priority Plan and Implementation Roadmap.

Table 32-1 Strategic policy recommendations

S/N	Policy Recommendation	Justification and Expected Impact	Corresponding Regulatory Actions	Timeline for Implementation
1	Establish MoU with NERC	Clarifies jurisdiction, reduces regulatory overlap, and builds investor confidence.	Negotiate MoU, define roles, establish dispute resolution and reporting frameworks.	Short-term (6 to 12 months)
2	Adopt Decentralised Coordination Model	Enhances local accountability, community participation, and service delivery.	Develop local engagement protocols and performance contracts.	Short to Medium-term (12 to 18 months)
3	Implement Targeted Social Tariff Framework	Promotes affordability and reduces energy poverty among vulnerable households.	Define eligibility, set lifeline tariffs, create subsidy fund, coordinate with social agencies.	Short-term (6 to 12 months)
4	Establish Renewable Energy Zones (REZs)	Accelerates clean energy deployment and guides private sector investments.	Conduct geospatial mapping, designate REZs, provide incentives and fast-track permits.	Medium-term (12 to 24 months)

S/N	Policy Recommendation	Justification and Expected Impact	Corresponding Regulatory Actions	Timeline for Implementation
5	Incentivise Mini-Grid Operators	Expands rural electrification and reduces reliance on public financing.	Launch capital grant program, streamline licensing, monitor performance.	Short to Medium-term (12 to 18 months)
6	Mandate Gender Equality Action Plans (GEAPs)	Promotes inclusive participation and gender equity in the electricity sector.	Integrate GEAPs into licensing, conduct audits, provide implementation support.	Short-term (6 to 12 months)
7	Require ESIA for All Projects	Ensures sustainable and socially responsible electricity development.	Enforce ESIA submission, monitor compliance with ESMPs.	Immediate (Within 6 months)
8	Develop Legacy Asset Registry and Debt Audit	Improves transparency, supports sector recovery, and attracts investment.	Engage auditors, publish asset/debt inventory, develop transition plan.	Short-term (6 to 12 months)
9	Design Asset Restructuring Framework with DFIs	Resolves historical inefficiencies and unlocks concessional funding.	Engage DFIs, define restructuring terms, secure financing agreements.	Medium-term (12 to 24 months)
10	Phased Market Development (Blueprint)	Supports transition to a competitive, resilient and consumer-driven market.	Draft and publish blueprint, implement clustered IPPs and trading platforms.	Long-term (2025 to 2030+ in phases)
11	Strengthen EK-SERB Capacity and Autonomy	Improves regulatory effectiveness, independence, and service delivery.	Develop and approve business plan, recruit skilled staff, increase funding.	Short to Medium-term (6 to 18 months)
19	Enact a Consumer Protection Code	Enhances consumer trust and provides a structured mechanism for grievance redress, promoting fairness and market discipline.	Develop and publish a Consumer Protection Code aligned with NERC standards; establish a complaints redress unit.	Q4 2025
20	Mainstream Gender and Social Inclusion (GESI) in licensing and project approvals	Ensures equitable energy access, enhances socio-economic outcomes for women and vulnerable populations, and attracts ESG-aligned investors.	Include GESI clauses in licensing conditions; require GESI reporting in licensee annual reports and audits.	Q1 2026



S/N	Policy Recommendation	Justification and Expected Impact	Corresponding Regulatory Actions	Timeline for Implementation
21	Design and implement lifeline tariffs and targeted subsidies	Reduces energy poverty and protects vulnerable consumers from tariff shocks, improving affordability and reducing theft.	Define eligibility criteria; introduce progressive tariff bands; amend tariff orders to reflect subsidy schemes.	Q4 2025
22	Deploy digital regulatory systems and platforms for EKSERB	Enhances efficiency, transparency, and stakeholder engagement through digitised licensing, compliance, and tariff reviews.	Procure and install a Regulatory Information Management System (RIMS); launch EKSERB web portal with e-services.	Q1 2026
23	Establish a State Electricity Coordination Committee (SECC)	Fosters coordination among EKSERB, MIPU, ESEB, and ESPC, reducing duplication, accelerating implementation, and resolving inter-agency bottlenecks.	Issue an Executive Order to establish SECC with defined terms of reference and quarterly performance meetings.	Q3 2025
24	Launch a public awareness and transparency campaign on the electricity market reform	Increases public buy-in, reduces misinformation, improves tariff payment discipline, and strengthens democratic governance of the reform process.	Develop a public communications strategy; publish all regulations, tariff changes, and enforcement actions online.	Q3 2025

33 Data-Informed Policy Making

Data-driven regulation is essential for ensuring that electricity sector policies and decisions are transparent, evidence-based, and responsive to consumer and market realities. The following initiatives are key to institutionalising data-informed policy making in Ekiti State.

Table 33-1 Data-informed policy considerations

Recommendation	Description	Purpose and Benefits	Implementation Considerations
a) Establish a Regulatory Data Portal for Real-Time Reporting by Licensees	EKSERB to develop a centralised digital data portal for real-time or periodic submission of operational, financial, and service delivery data from all licensed entities (e.g., distribution companies, mini-grid operators, generation companies).	- Ensure timely access to accurate data (supply, demand, outages, complaints, metering, service quality). - Improve regulatory oversight, compliance monitoring, and performance benchmarking. - Provide platform for automated data validation, analytics, and public reporting, enhancing transparency and stakeholder confidence.	- Standardise data submission formats and frequencies. - Integrate with other state data systems (planning, finance, etc.). - Ensure data security, privacy, and role-based access for regulators, licensees, and approved public users.
b) Link Tariff Decisions to Periodic Cost-of-Service Studies	EKSERB to institutionalise the use of periodic cost-of-service (CoS) studies to inform tariff decisions and adjustments, ensuring electricity pricing reflects actual costs of generation, transmission, distribution, and retail services, while protecting consumers.	- Promote financial viability of service providers by enabling cost recovery through tariffs. - Support affordable and equitable pricing through differentiated tariffs (e.g., lifeline rates, rural subsidies). - Provide a transparent and justifiable basis for tariff changes to consumers, investors, and government stakeholders.	- Conduct CoS studies every 2–3 years or as market conditions change. - Engage independent experts and stakeholders during the review process. - Use study findings to adjust tariff bands, design cross-subsidies, and identify efficiency improvement areas.
c) Require Disaggregated Data on Energy Access, Income, Gender, and Location	EKSERB to mandate licensees to submit disaggregated data on electricity access and usage based on income levels, gender, geographic location (urban/rural), and consumer type.	- Identify underserved and vulnerable populations for targeted subsidies and access programs. - Support gender-sensitive and socially inclusive energy planning and regulatory design. - Enable tracking of progress on universal access, equity, and energy poverty reduction goals.	- Align data requirements with national surveys (e.g., Nigeria Demographic and Health Survey) and SDG indicators. - Encourage the use of GIS and mobile platforms to map access gaps and consumption patterns. - Partner with the Ekiti State Bureau of Statistics and state agencies responsible for social protection for validation and coordination.



34 Policy Implementation Support Instruments

Data-driven regulation is essential for ensuring that electricity sector policies and decisions are transparent, evidence-based, and responsive to consumer and market realities. The following initiatives are key to institutionalising data-informed policy making in Ekiti State.

Instrument	Purpose	Responsible Body
Electricity Policy Advisory Committee	Ensure alignment across ministries	Governor's Office / MIPU
Regulatory Sandbox	Test innovative mini-grid or pricing models	EKSERB
Capacity Building Fund	Support training for regulators and utilities	State + Donor Partners
Consumer Engagement Charter	Build trust, transparency, and feedback loops	EKSERB + CSOs

35 Conclusion

The policy guidance provided herein forms the intellectual and strategic foundation for operationalising EKSERB and catalysing a robust, inclusive, and investor-friendly electricity market in Ekiti State. These policy proposals address structural bottlenecks, regulatory uncertainties, and equity gaps to support long-term electricity sector sustainability, competitiveness, and socio-economic development.

Section

06



**Implementation Roadmap for
Ekiti state electricity market**



37 Implementation RoadMap

Table 37-1 Ekiti State Electricity Market Implementation Roadmap



PHASE 1 - 2025: Foundation & Pilots

- ▶ Establish **EKSERB** structure, recruit staff, and approve business/operational plan.
- ▶ Finalise key regulations: Licensing, Tariff Order, Compliance & Consumer Codes.
- ▶ Launch **50MW solar IPP pilot**, 10 mini-grids, 20,000 smart meters, COU pilots, substation upgrades.
- ▶ Set up **GESI Department**, begin training in energy auditing & metering.
- ▶ Launch **Youth Energy Corps (pilot)** in 2–3 LGAs.
- ▶ Start development of **Integrated Energy Sector Data Platform**.
- ▶ Development of an Integrated Resource Plan for the Ekiti State Electricity Market

Lead Entities: **EKSERB, MIPU, MoE, MoWASD, TVET Board, ESPC**



PHASE 2 - 2026: Market Entry & Early Capacity Development

- ▶ Legally establish **ESET-CDI**, roll out mobile training labs, launch GESI training & STEM programs.
- ▶ Adopt Grid Code, Market Rules, Mini-grid Regulation.
- ▶ Deploy **Smart Grid/SCADA** pilots, launch **digital Energy Data Platform (beta)**.
- ▶ Pilot **Inclusive Electrification Program** (10–15 facilities).
- ▶ Initiate **E-CEIRE** planning, first Innovation Hackathon.
- ▶ Conduct public hearings for tariff/licensing.

Lead Entities: **EKSERB, ESET-CDI, MIPU, LGAs, ESPC, MoE, Donors**



PHASE 3 – 2027: Scale & Integration

- ▶ Expand Youth Energy Corps to 8+ LGAs.
- ▶ ESET-CDI starts advanced technical training; operationalise E-CEIRE.
- ▶ Connect mini-grids to main grid; roll out **DERMS** & wheeling frameworks.
- ▶ Scale COUs to 20 clusters, integrate mobile payments.
- ▶ Launch digital marketplace for SMEs and energy providers.
- ▶ Annual **Energy Stakeholder Scorecard** review.
- ▶ Begin universal GESI indicators in licensing.

Lead Entities: **EKSERB, MIPU, ESET-CDI, MoI, Private Sector, ESPC**





PHASE 4 — 2028: Performance, Inclusion & Review

- ▶ Expand mobile labs state-wide; launch university–industry R&D partnerships.
- ▶ Scale care-institution electrification to 50+ sites.
- ▶ Expand renewable generation (100MW hydro/biomass); implement **bilateral contracts**.
- ▶ Evaluate GESI & regulatory effectiveness; adjust policy frameworks.
- ▶ Introduce **dynamic pricing pilot** in smart-metered zones.

Lead Entities: **EKSERB, MIPU, BOI, Universities, ESPC, COUs**



PHASE 5 - 2029: Evaluation & Sustainability

- ▶ Midterm evaluation of capacity-building outcomes.
- ▶ Mainstream **ESIA and ESG compliance** across infrastructure projects.
- ▶ Expand Energy Finance for women & youth-led SMEs.
- ▶ Publish **Youth Corps outcomes**; integrate M&E tools across LGAs.
- ▶ EKSERB achieves financial independence (NGN 2.065B revenue).
- ▶ Launch **cluster-based electrification** in industrial hubs.

Lead Entities: **MIPU, Development Partners, Training Institutions, EKSERB**



PHASE 6 - 2030: Maturity & Institutionalisation

- ▶ Finalise capacity-building KPIs and framework review.
- ▶ Institutionalize Youth Corps as a state program.
- ▶ Scale successful pilots state-wide (e.g., Women in Energy).
- ▶ Host **state-wide electricity reform summit**.
- ▶ Integrate EKSERB M&E dashboards into government reporting.
- ▶ Develop post-2030 strategic plan (2030–2040).

Lead Entities: **Executive Council, EKSERB, MIPU, All Partners**



PHASE 7 — 2031-2035: Market Optimisation & Universal Access

- ▶ Establish **Ekiti System Operator (ESO)** for real-time dispatch.
- ▶ Launch day-ahead spot market; scale demand-side management (DSM) and EV charging networks.
- ▶ Achieve **95% electrification** through hybrid models.
- ▶ Automate grid operations using AI/IoT predictive maintenance. - Strengthen bilateral trading and enforce open-access regimes.

Lead Entities: **EKSERB, ESO, ESPC, IPPs, Donor Partners**

APPENDIX

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Matrix: Federal vs. State Roles in Ekiti State Electricity Market Operations

Table 37-2 Federal vs. State Roles in Ekiti State Electricity Market Operations

Area of Responsibility	Federal Role (NERC)	State Role EKSERB	Shared/Coordination (Transitional Issues)
Market Rules & Structure	Develop and enforce overarching national market rules and frameworks (e.g., Grid Code, Metering Code, Market Rules for the national grid).	Develop and enforce state-specific market rules tailored to the Ekiti market structure (e.g., rules for Competing Electricity Traders, cluster-based licensing).	Alignment of Market Rules: Joint guidance and coordination to ensure state rules align with national frameworks, particularly for areas like <i>grid-connected areas</i> and ensuring seamless transition for licensees. Avoiding regulatory conflicts.
Licensing	Licenses generation companies (Gen-cos) directly connected to the national grid; licenses TCN	EKSERB licenses Discos, ESCOs, “Competing Electricity Traders” for specific clusters	License Transfers/Harmonisation: Coordination on the transfer of existing federal DisCo licenses to state jurisdiction, ensuring seamless transition and preventing operational gaps. Joint oversight for dual-regulated entities or activities.
Generation (Embedded/Distributed)	Regulates larger embedded generation connected to the national grid; sets national standards for grid connection.	EKSERB regulates smaller embedded/distributed generation within the state’s distribution network.	Embedded Generation Regulation: Joint guidance and protocols for the connection, dispatch, and commercial arrangements of <i>embedded generation</i> that might impact both federal (e.g., load shedding requests from national grid) and state systems. Avoiding double regulation.
Network Operation & Standards	Sets national technical standards for transmission and oversees TCN’s operations.	Manages the distribution network operations, sets and enforces state-specific technical standards for its distribution network.	Technical Standards Harmonisation: Collaboration to ensure state distribution network technical standards are compatible with national grid standards for safety, stability, and interoperability. Joint review of critical interfaces.



Area of Responsibility	Federal Role (NERC)	State Role EKSERB	Shared/Coordination (Transitional Issues)
Tariff Review & Regulation	Sets end-user tariffs for services under federal jurisdiction; approves wholesale tariffs for TCN and Gencos selling to the national pool.	EKSERB reviews and approves retail tariffs for “Competing Electricity Traders” within Ekiti, considering Generation, Tuos, Duos, and Retail charges.	Tariff Alignment & Impact: Coordination to ensure state tariffs reflect national costs (e.g., Tuos, Generation) and do not create undue burdens or distortions for consumers or operators that operate across both federal and state domains.
Investment & Infrastructure Development	Develops national grid expansion plans; facilitates large-scale generation investments.	EKSERB/ESPC mobilizes investment, promotes PPPs, and leads the development of strategic state-level electricity infrastructure projects (generation, distribution grid upgrades).	Joint Oversight of Grid-Connected Areas: Collaborative planning and oversight for investments in distribution infrastructure that directly interface with or impact the national grid, ensuring efficiency and avoiding duplication. Shared intelligence on investment needs and pipeline.
Performance Monitoring	Monitors the performance of federal licensees (TCN, Gencos under federal purview).	EKSERB monitors the performance of DisCos, Competing Electricity Traders and state-led projects	Data Sharing & Metrics: Establishing common performance metrics and data sharing protocols for areas of shared interest, particularly for entities (like DisCos if some remain under NERC initially) whose performance impacts both federal and state objectives.
Dispute Resolution	Resolves disputes involving entities regulated at the federal level.	EKSERB resolves disputes involving state-licensed entities and consumers within the state.	Jurisdictional Clarity & Referral: Establishing clear protocols for resolving disputes that might span both federal and state regulatory remits, including clear referral mechanisms.
Consumer Protection	Sets national consumer protection standards.	EKSERB sets state-specific consumer protection regulations, handles consumer complaints within its jurisdiction.	Consistent Consumer Protection: Coordination to ensure consumer protection standards are consistent and effective across both federal and state levels, especially for consumers in grid-connected areas.



