



# **Financial and Technical Performance of Nigeria's Electricity Sector (2019– 2024)**

*Integrated Africa Power  
March 2026*

# ***Presentation Overview***

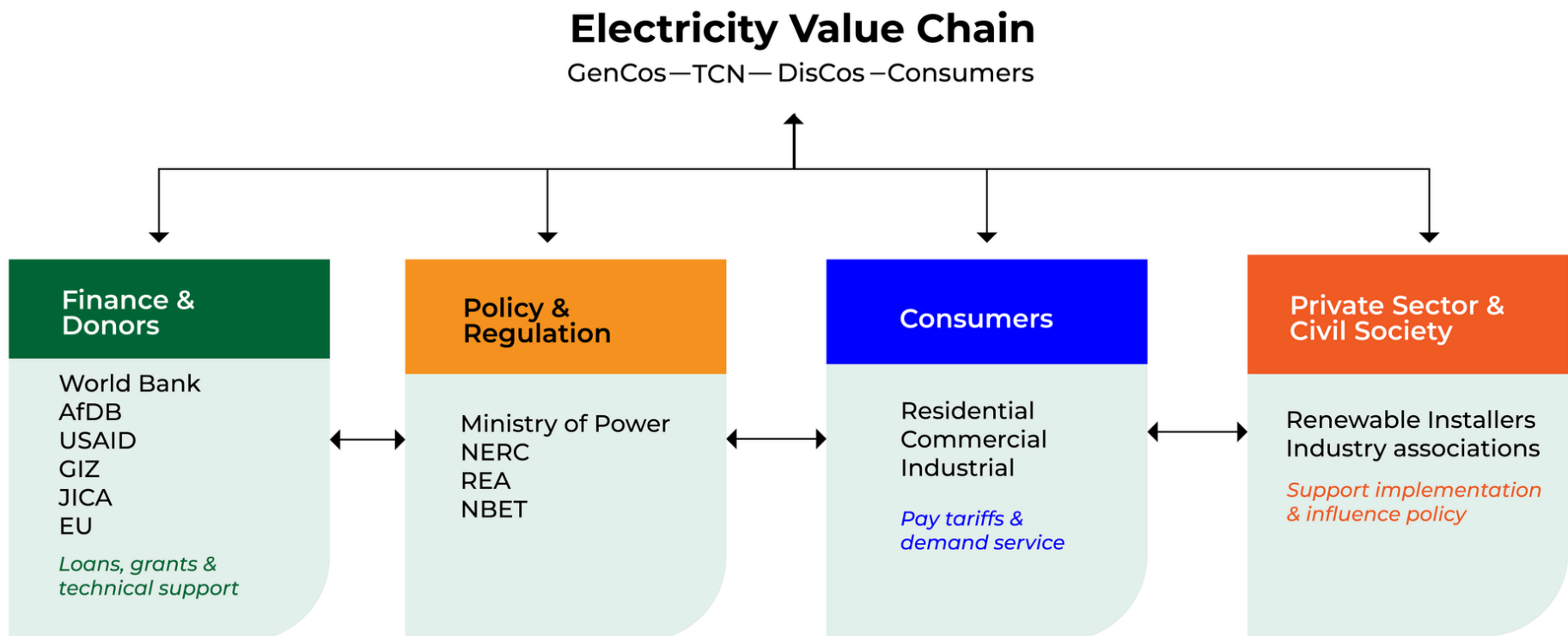
- Market landscape and structure
- Investment trends (public & private)
- Financial performance across Generation, Transmission & Distribution Companies
- Structural constraints
- Policy implications & recommendations

## Market Landscape: Structure

- Multi-actor electricity market
- Generation largely privatized
- Transmission (TCN)- fully government-owned
- Distribution (DisCos) - privatized (60% private ownership)
- NBET - bulk trader intermediary
- NERC - sector regulator
- Approximately 11 million electricity customers (2021)
- Installed capacity approximately 16GW
- Dispatchable capacity approximately 4GW

Figure: Operational Structure of Nigerian Electricity Market

## Key Stakeholders in Nigeria’s Electricity Sector



# Key Stakeholders

## **Generation companies (GenCos)**

- Thermal & hydro plants
- IPPs & NIPPs
- Gas supply dependency

## **Transmission Company of Nigeria (TCN)**

- National grid operator
- Government-funded expansion

## **Distribution companies (DisCos)**

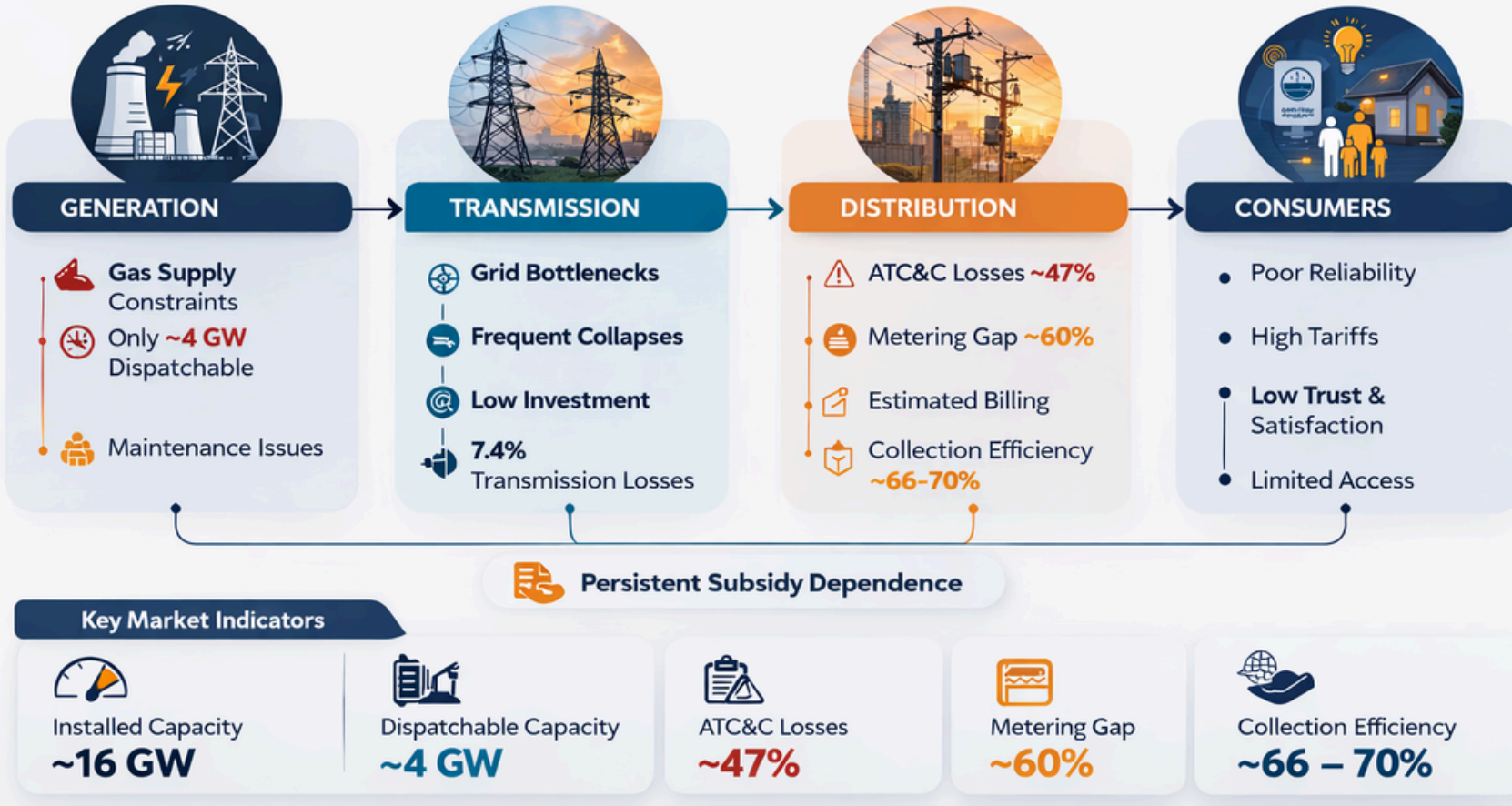
- 11 DisCos
- Responsible for billing & collection
- Weakest performance segment

## **Regulatory & Market Institutions**

- Nigerian Electricity Regulatory Commission (NERC)
- Nigerian Bulk Electricity Trading (NBET)

# Structural Characteristics

## Constraints in Nigeria's Electricity Market



## Structural Characteristics Of the Market

- Supply–demand gap
- Transmission bottlenecks
- High ATC&C losses (~47%)
- Metering deficit (Approx. 60% unmetered)
- Collection efficiency around 66–70%
- Persistent subsidy dependence

## Investment Dynamics Overview

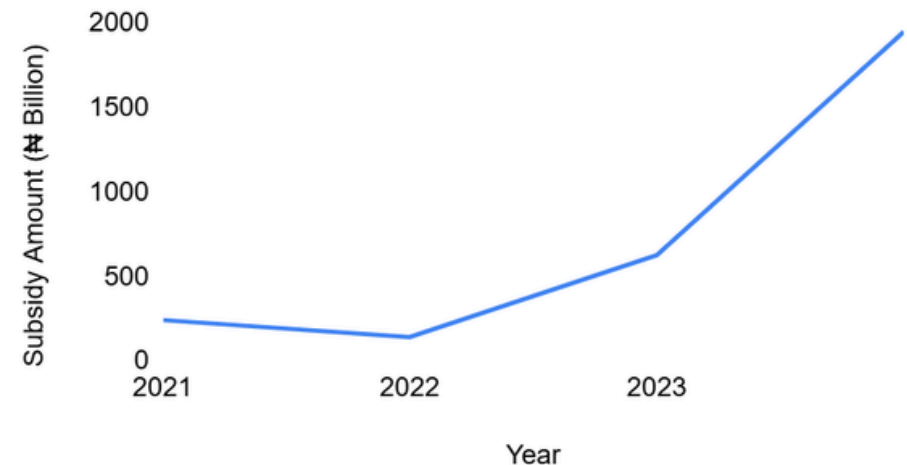
- Mixed investment model
- Privatization intended to shift financing to private sector
- Persistent liquidity shortfalls -continued government financial support
- Public capital stabilizes market
- Private capital largely focused on maintaining operations

# Public Sector Investment

## Government Support Mechanisms

- Tariff shortfall subsidies
- Payment Assurance Facilities
- CBN intervention funds
- Transmission infrastructure financing
- Market stabilization programs

Annual FGN Subsidy Trend



# Government Subsidy Trend

## Major Observations

- Subsidies increased significantly after 2022
- 2024 subsidy estimated around ₦1.9 trillion
- Rising fiscal burden on government
- Reflects widening revenue gap

## Transmission-Focused Public Investment

- Transmission Rehabilitation and Expansion Program (TREP)
- Target wheeling capacity: 22,000 MW
- Implementation delays
- Continued evacuation constraints
- Heavy reliance on donor financing

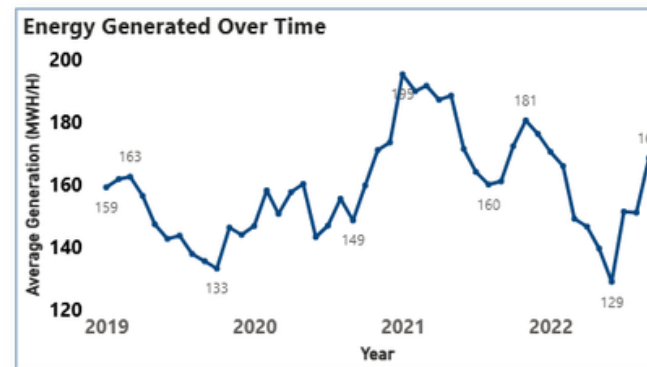
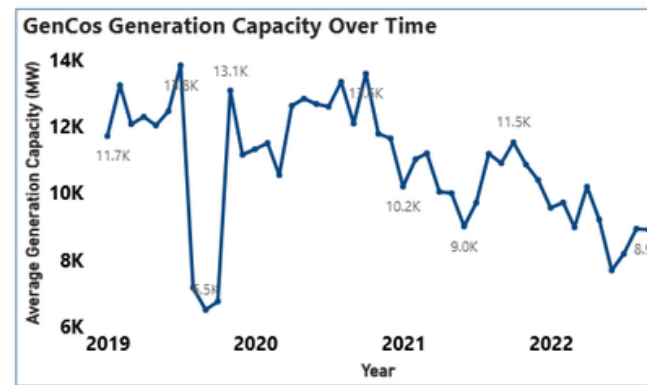
## Private Sector Investment

- Privatization in 2013–2014
- Independent Power Producers (IPPs)
- Increasing decentralized solar and mini-grid investments
- Constrained by tariff, regulatory and revenue uncertainty

# Generation Capacity vs Output

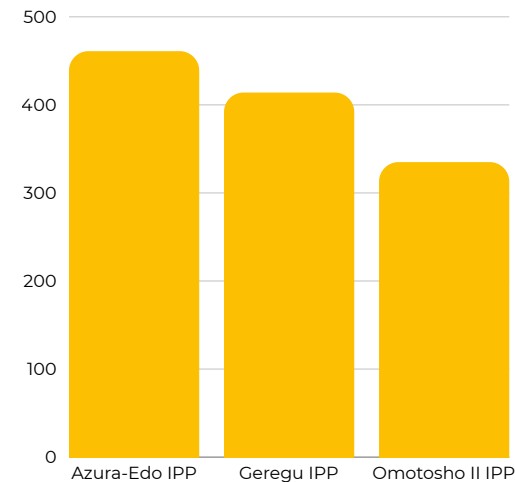
## INSIGHTS

- Installed capacity rising
- Actual generation significantly lower
- Underutilization due to:
  - Gas supply constraints
  - Grid bottlenecks
  - Liquidity stress



## Major Private Generation Investments

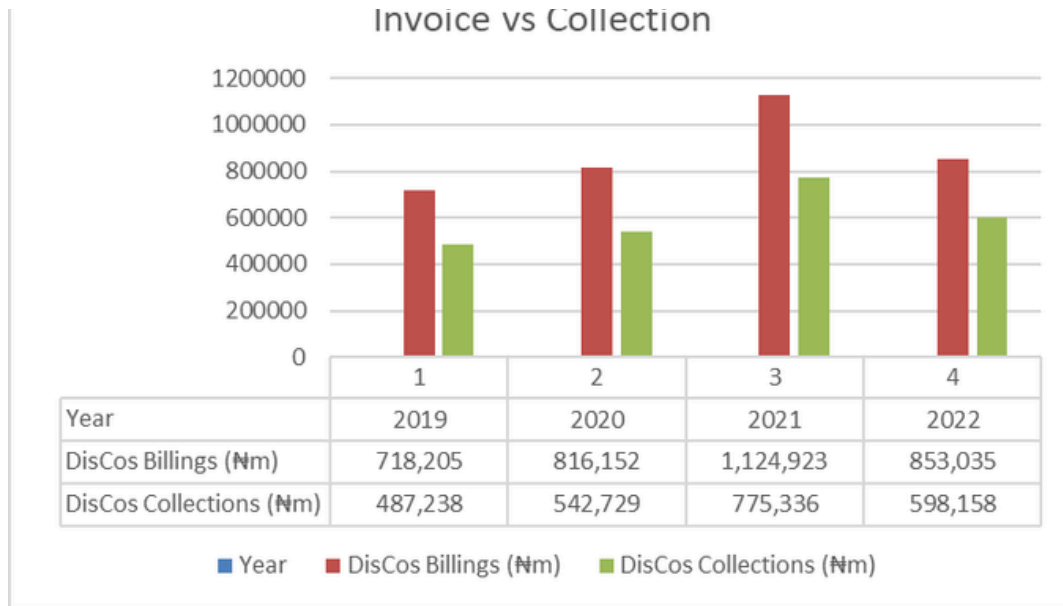
- Azura-Edo IPP – 461 MW
- Geregu IPP – 414 MW
- Omotosho II IPP – 335 MW



## Market Financial Performance

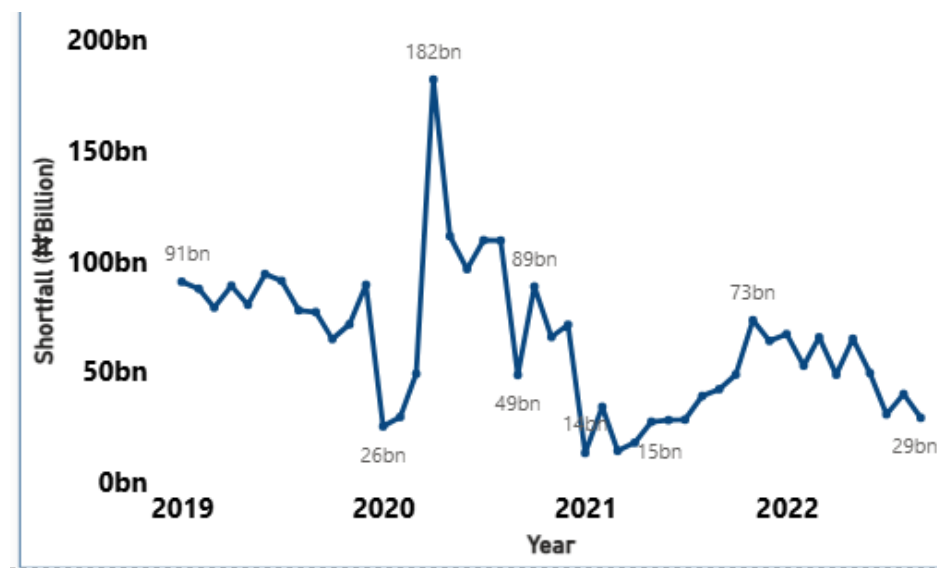
- Sector efficiency around 15.7% (Ganiyu et Al 2018)
- Distribution losses about 46–48%
- Collection efficiency below 71%
- Recurring liquidity shortfalls

# DisCo Financial Performance



- Persistent under-collection
- Estimated billing challenges
- Revenue leakage across the distribution segment

## NBET Liquidity Position

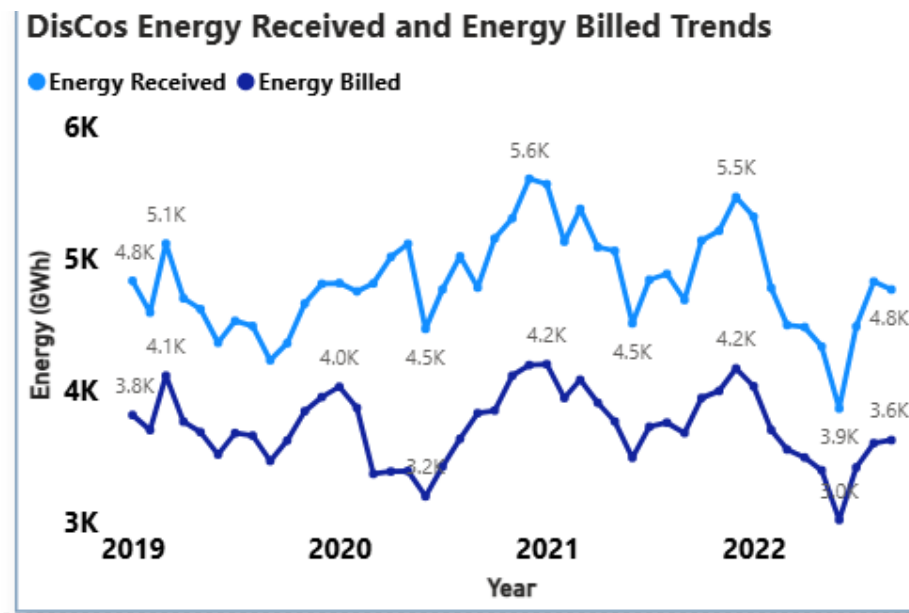


- Chronic payment shortfalls
- Outstanding balances to generation companies
- Revenue under-recovery affects maintenance

## Transmission Sector Constraints

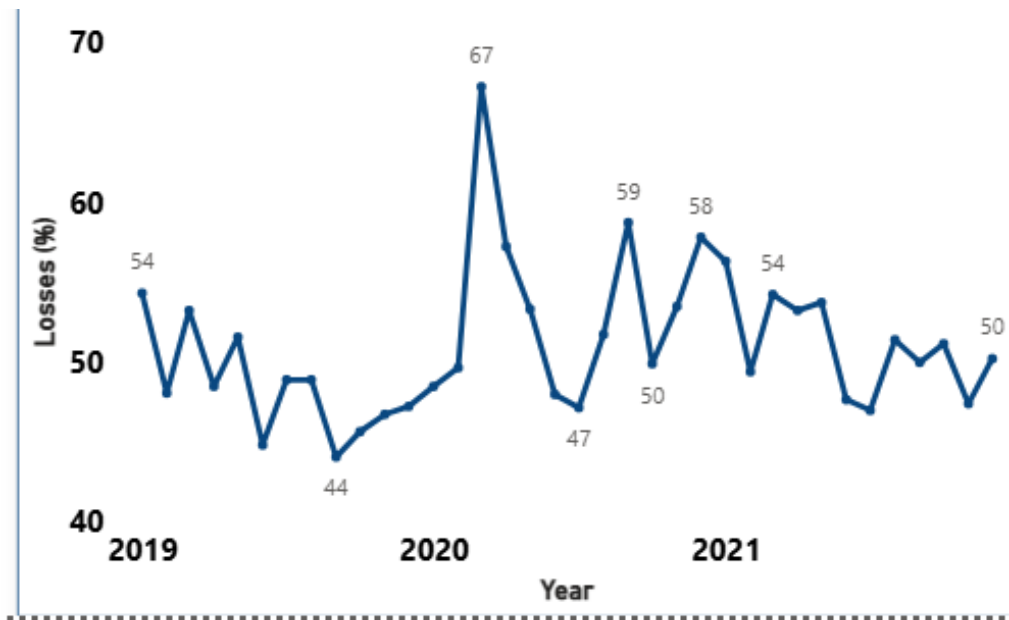
- Transmission losses  $\approx 7.4\%$
- Grid collapses reported (Reuters, 2024)
- Vandalism & infrastructure gaps
- Limited internal cost recovery
- Donor-dependent expansion

# Distribution Sector Constraints



- Metering deficit persists
- Estimated billing → consumer distrust
- Revenue shortfalls cascade upstream

## ATC&C Loss %



- Average ~47% (2019–2022)
- Far above global benchmarks
- Major driver of financial instability

# Integrated Sector Diagnosis

## ***The sector exhibits:***

- Underutilized generation capacity
- Transmission evacuation constraints
- High technical & commercial losses
- Weak collection performance
- Rising fiscal subsidies
- Structural liquidity trap

# Conclusions

- Sector remains subsidy dependent
- Private investment constrained by weak cost recovery
- Transmission remains a major bottleneck

## Policy Recommendations

- Expand metering coverage
- Strengthen transmission infrastructure
- Performance-based subsidies
- Improve DisCo operational efficiency

## Final Message

- Sustainable reform requires coordinated technical upgrades
- Institutional strengthening
- Financial discipline
- Restoring investor and consumer confidence



# About IAP

**Integrated Africa Power (IAP)** is a multi-unit enterprise specialized in energy and infrastructure development on the African continent. We seek to solve Africa's energy deficits, through integrated systems solutions, resource pooling and cross-border cooperation. Our approach is based on our philosophies of tailored suitability, cost-effectiveness, sustainability and energy-development linkages.

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