

Self Supply With Renewable Energy in the Nigeria Electricity Supply Industry (NESI)

Regulatory Perspectives

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Virtual Energy Conference

Organized By:

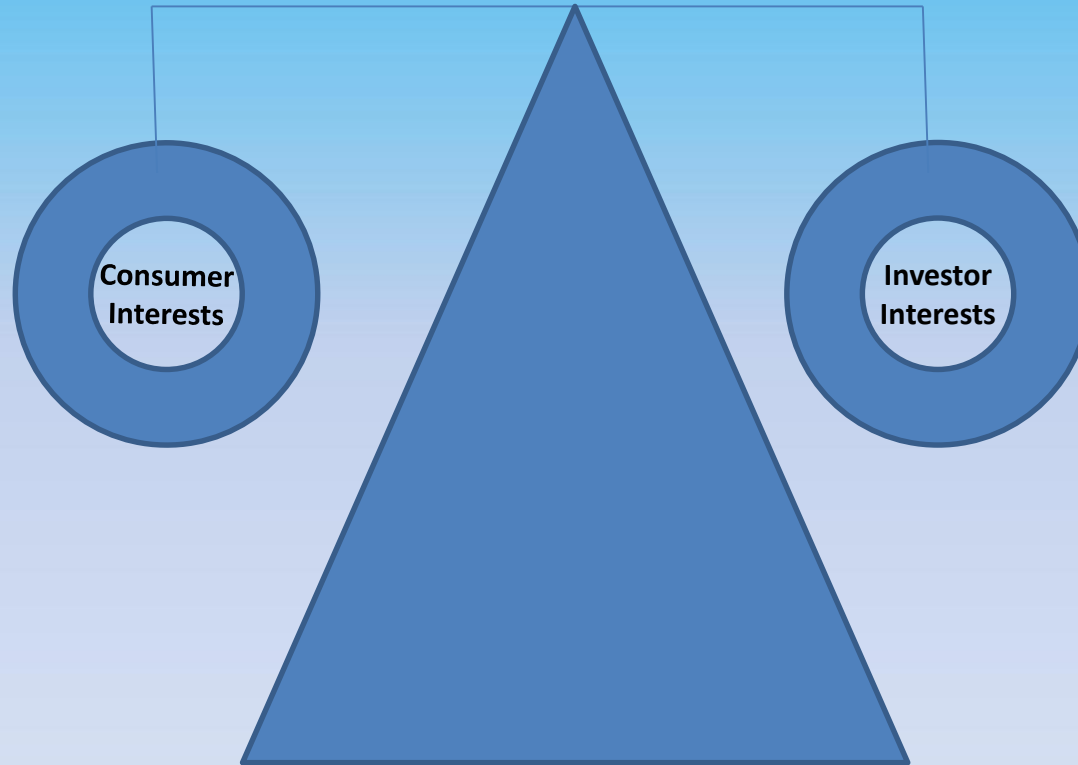
The Delegation of German Industry and Commerce in Nigeria
(AHK Nigeria)

Tuesday, 8th of September 2020

Outline

- Introduction
- NERC Regulatory Instruments/Initiatives
- RE Investment Opportunities in Nigeria – Regulatory Instruments
- Challenges and Mitigation Strategies
- Conclusion

Balancing Role of NERC



'Just & Reasonable'

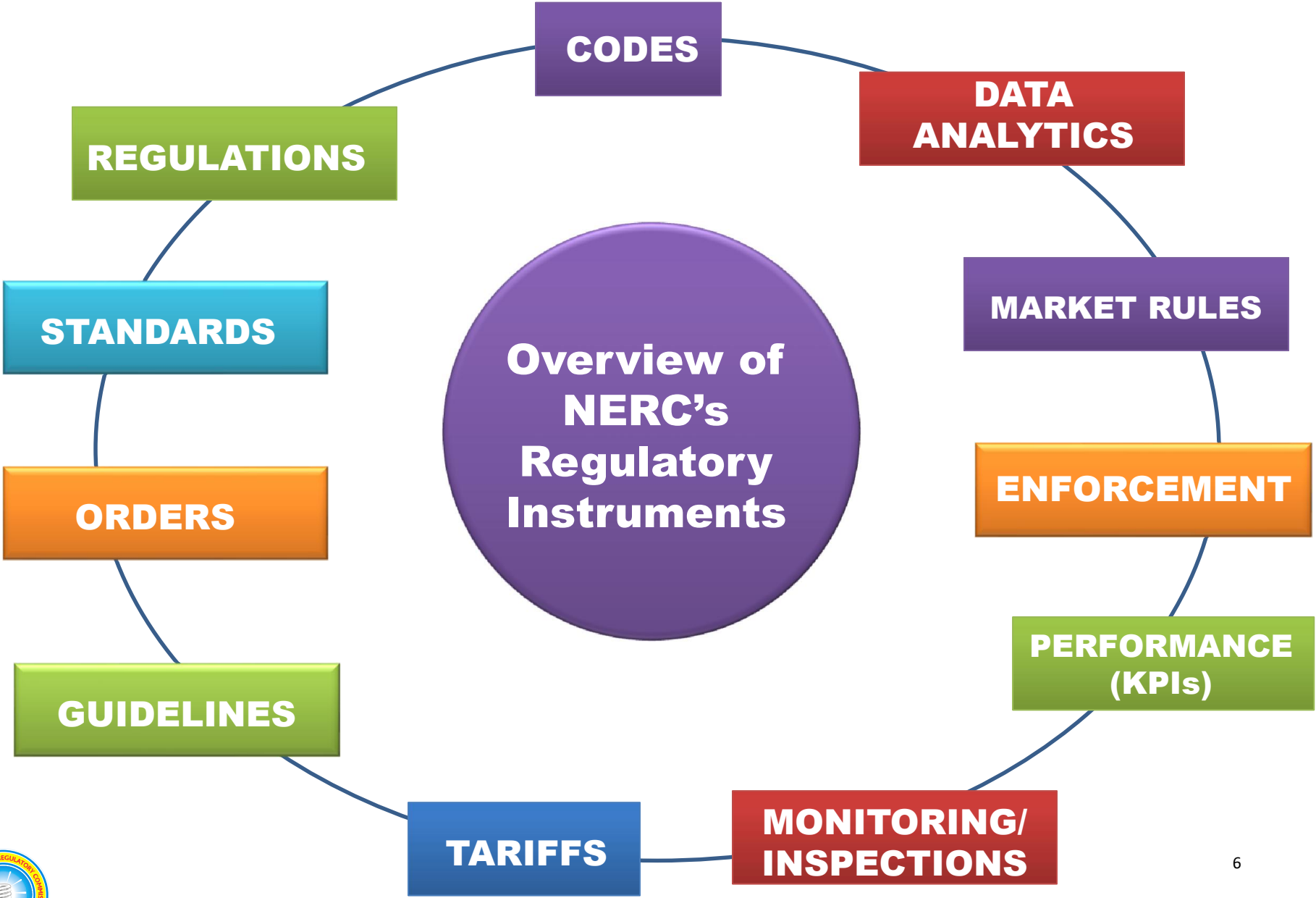
Objects of The Commission

- a) **Section 32(1)(a)** of the EPSR Act, 2005 empowers the Commission to create, promote and preserve efficient industry and market structures, and to ensure the optimal utilization of resources for the provision of electricity services.
- b) **Section 32(1)(b)**: The Commission is also empowered to maximize access to electricity services, by promoting and facilitating consumer connections to distribution systems in both rural and urban areas.
- c) **Section 32(1)(c)**: The Commission shall ensure that adequate supply of electricity is available to consumers.
- d) **Section 32(2)(g)** further empowers the Commission to undertake such other activities which are necessary or convenient for the better carrying out of or giving effect to the objects of the Commission.

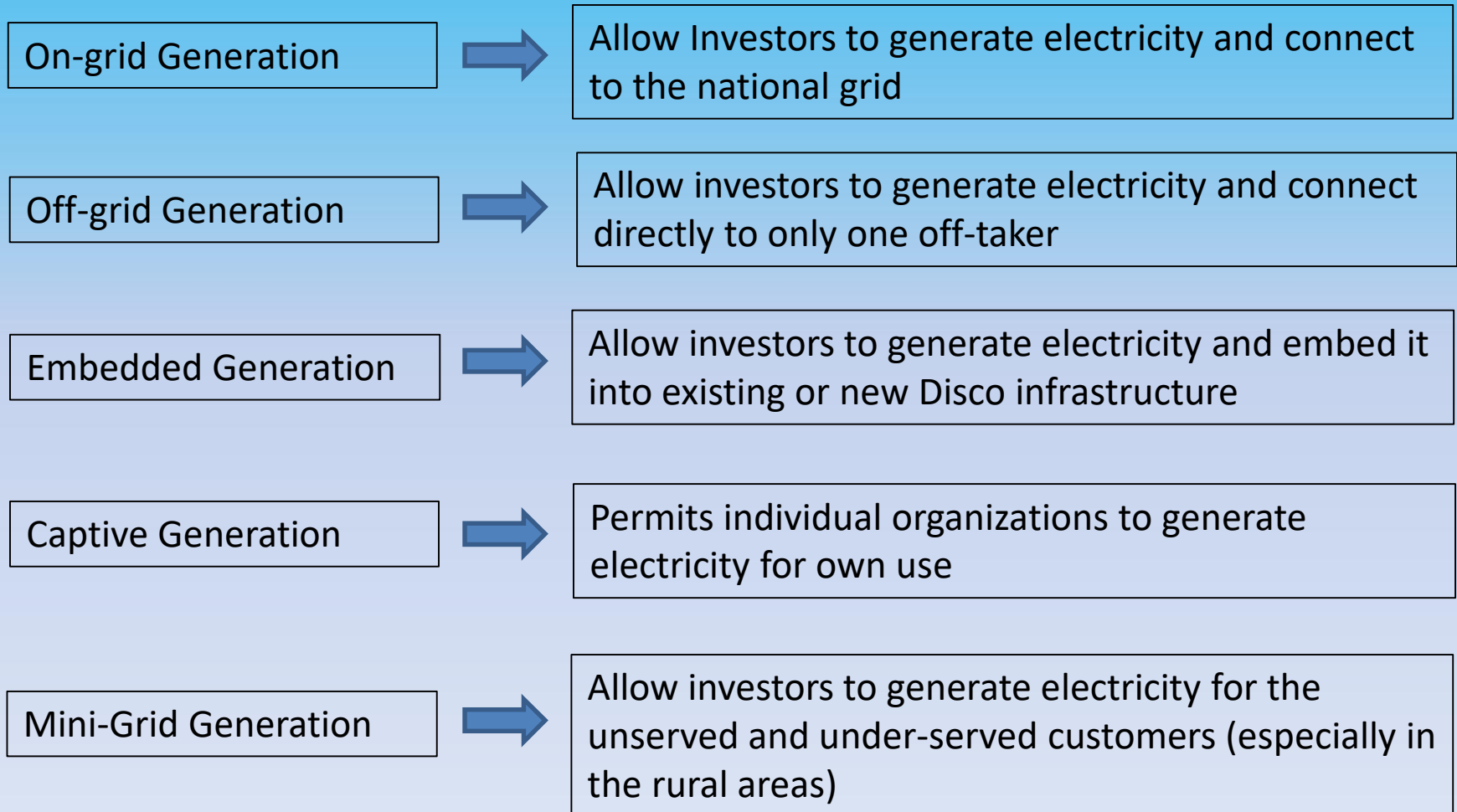


Regulatory Initiatives to Increase Access to Electricity and Promote Renewable Energy Supply

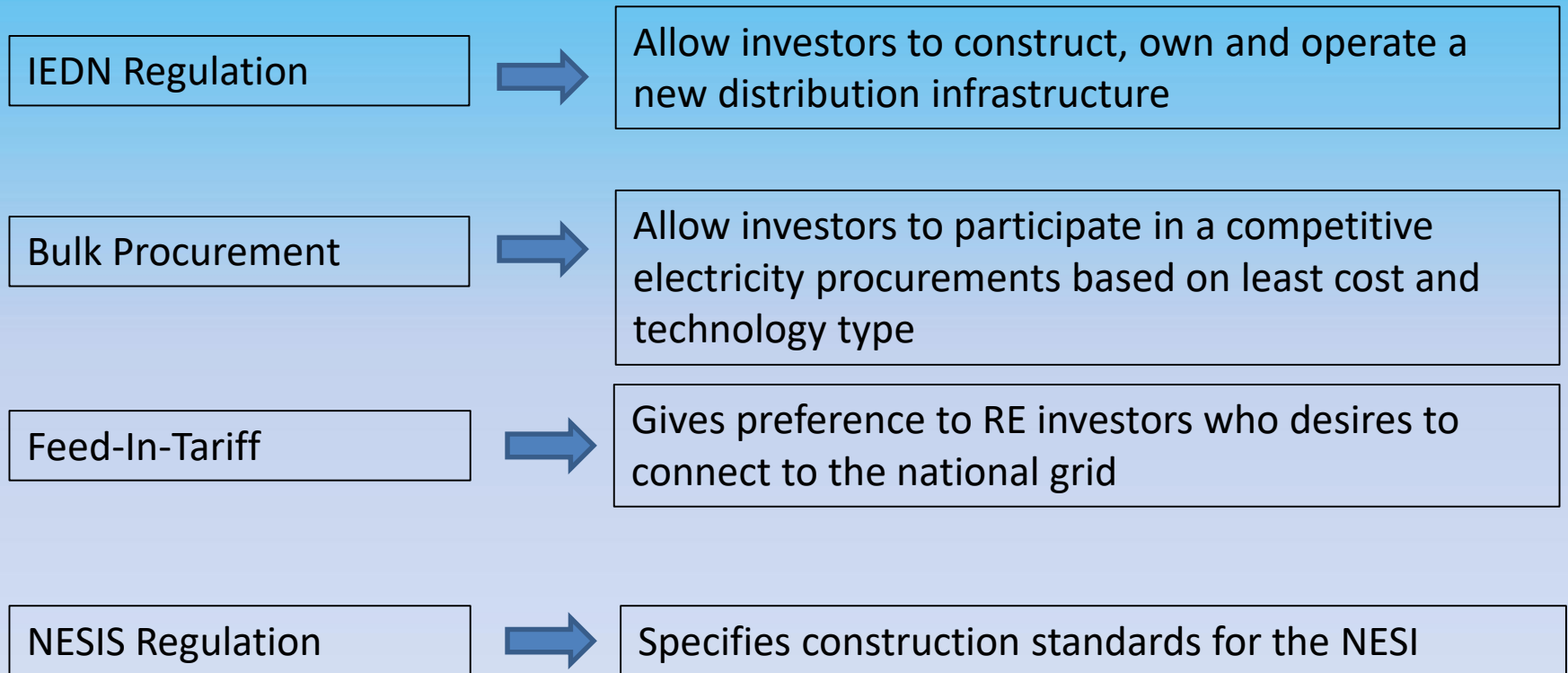
**Overview of
NERC's
Regulatory
Instruments**



RE Investment Opportunities in Nigeria – Regulatory Instruments

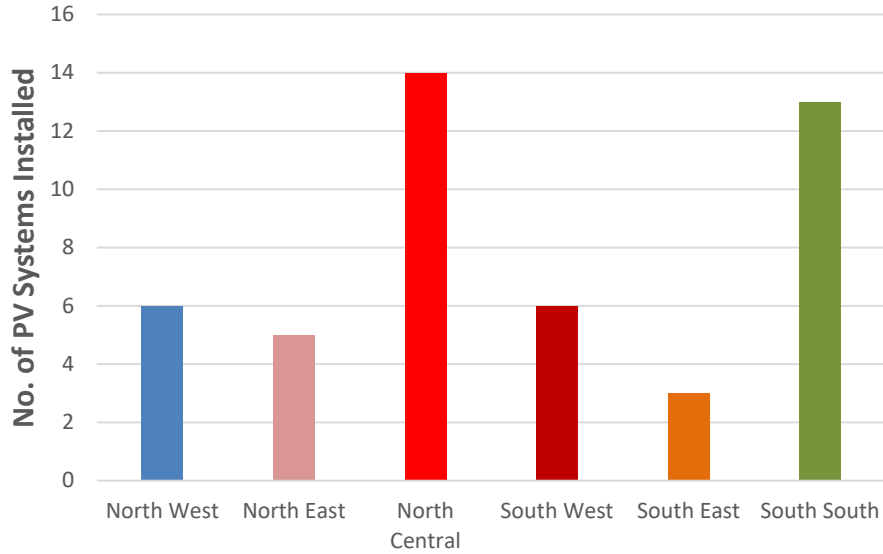


RE Investment Opportunities in Nigeria – Regulatory Instruments...2

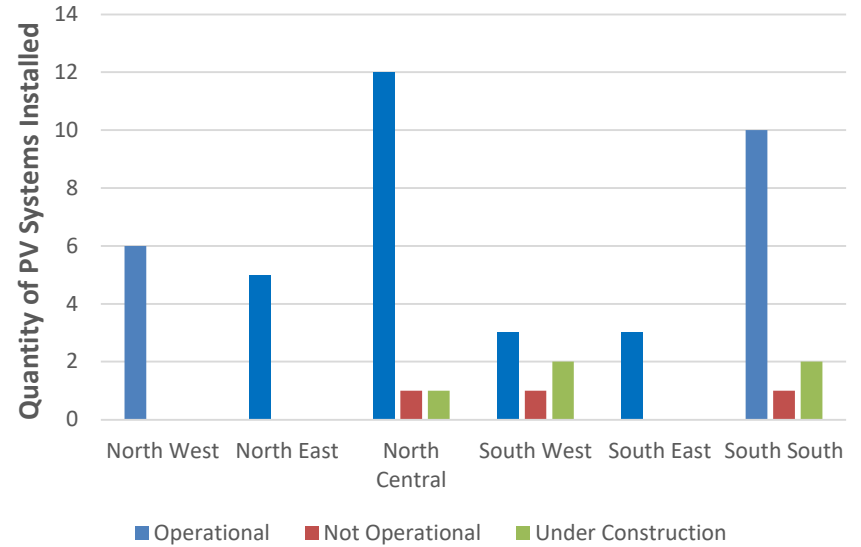


Summary of PV Mini-grids Investments in Nigeria

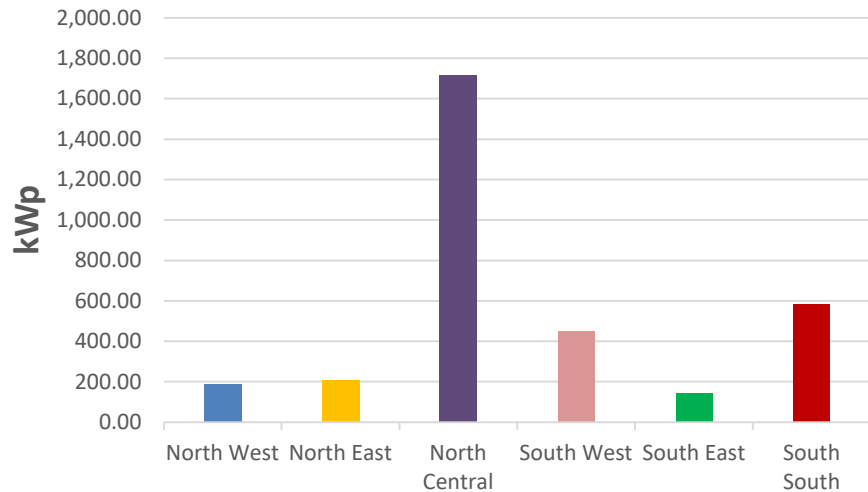
Total Number of PV Systems Installed



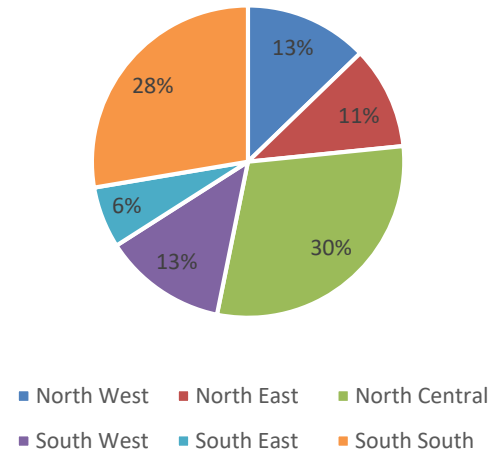
Status of the PV Systems



Total Capacity of PV Systems Installed (kWp)

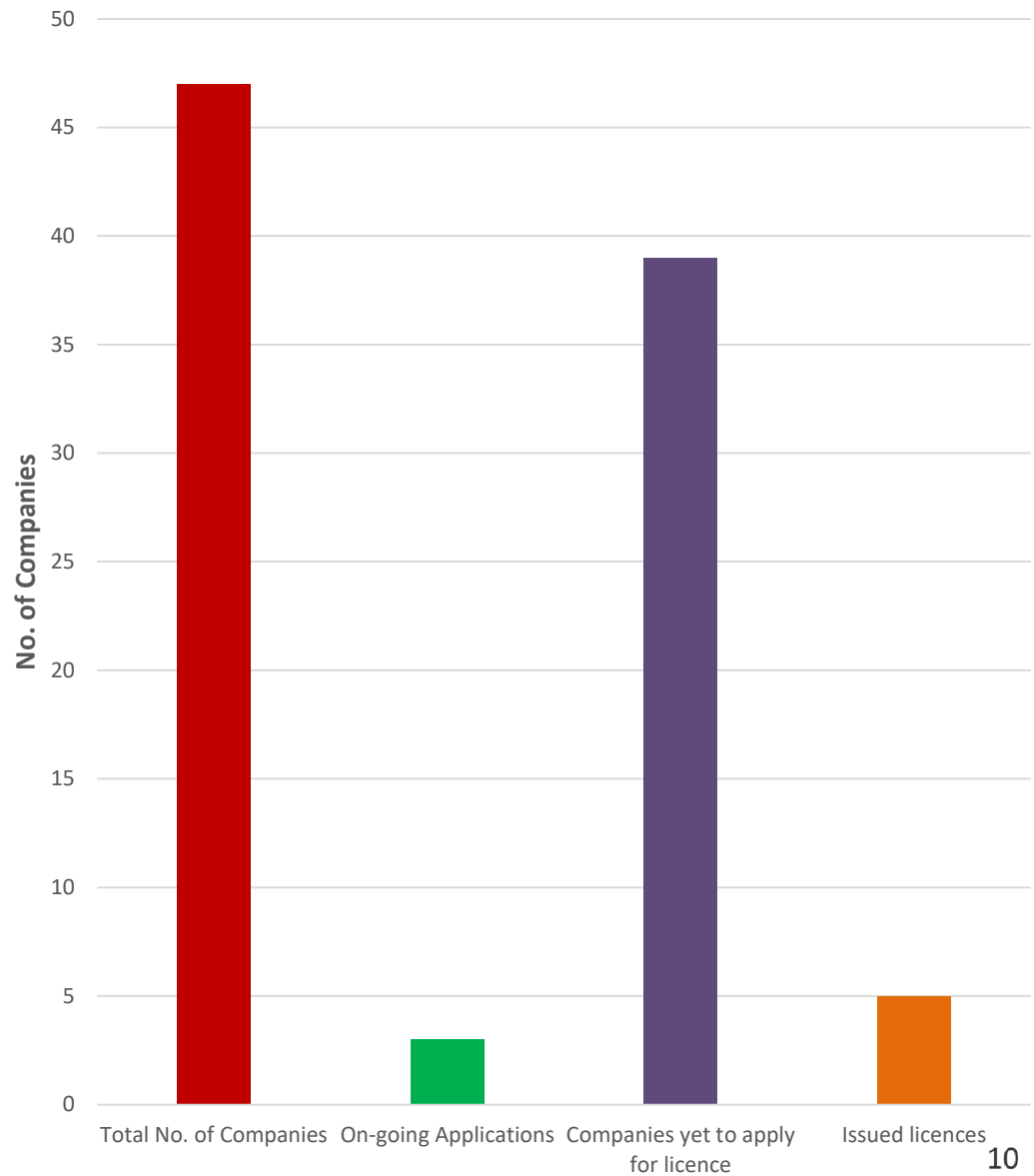


Percentage Penetration



Companies
licenced
by NERC
on RE

Summary of Operational RE PV Mini Grid Companies



Source: NERC's RE investment data



Summary of 10 audited commercial Mini Grids Renewable Energy Investments in Nigeria

- *Source: Minigrid Investment Report: Scaling the Nigerian Market by the Economic Summit Group, 2018.*

Metric	Range	Median
Tariff	N120 – N300/kwh (US\$0.34 - \$0.86/kwh)	N200/kwh US\$0.578/kwh
System Size	16kw – 100kw	45kw
Capital Expenditure	N30 – N100 million (US\$90,000 - \$300,000)	N50 million (US\$140,000)
Operating Expenditure (per annum)	N300,000 – N2.4million (US\$900 - \$ 6,900)	N690,000 (US\$2,000)
Load	16 – 300kwh/day	218kwh/day
Capacity Utilization	2% - 100%	19%
Collections	98% - 100%	99%

Challenges and Mitigation Strategies

Metering, Billing and Collection

Licensing Model and Type

PPAs, Approvals and
Certifications

Ownerships and Transfers

Technology and Network
Coverage

Opportunities of RE Investments in Nigeria

- 55% of Nigerians (especially in the rural areas) need adequate and reliable access to electricity
- For Minigrids, customers can pay upward of N250 (US\$0.70) per kilowatt hour
- **The minigrid market in Nigeria offers potential annual revenue of N2.8 trillion (US\$8 billion) annually (Nigerian RE Roundtable Group)**



Conclusion

- Nigeria has the land, the people, the resources and enabling Policy/Regulatory Frameworks
- The only thing left to complete the loop is you.
- Would you not rather invest in Nigeria?



THANK YOU

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