

Developing Institutional Framework for the Energy Efficiency Act and Regulations targeting energy intensive sector in Nigeria CTCN

Market Scoping Report

June 2023



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1. Introduction

1.1. Background

Nigeria's rapid economic development and subsequent increase in urbanization has led to an increase in the energy demand for the country. The country is well endowed with natural resources; however, it still faces power shortages and blackouts due to inefficiency in energy and power systems. In addition to this, Nigeria has committed a 47% reduction in its emissions by 2030 considering 2018 as baseline. The Government has realized the importance of energy efficiency in its power infrastructure and is taking steps to ensure it incorporates the same through conditional and unconditional support.

This technical assistance, a support by Climate Technology Centre and Network (CTCN) and United Nations Industrial Development Organization (UNIDO), to the Government of Nigeria will help in creating an ecosystem for uptake of energy efficiency investments in the country. The project team will conduct a comprehensive market assessment for energy efficiency and conservation in industry and household to establish a baseline and context for further project activities in the country. The market assessment of the Nigeria's key demand sectors will help create a basis to identify key sectors for which energy efficiency policy regulations could be drafted. The project team will further go ahead to establish the energy efficiency Act for the country. The Act would provide the framework through which new age technologies and practices be introduced as well as provide an environment conducive to energy conservation measures.

The team support in enabling Nigeria in creating a self-sustaining market for energy efficiency by building on capacities and creating energy auditor and manager certification program in the country. The TA will eventually help Nigeria in mitigating climate change across sectors and reducing its emissions.

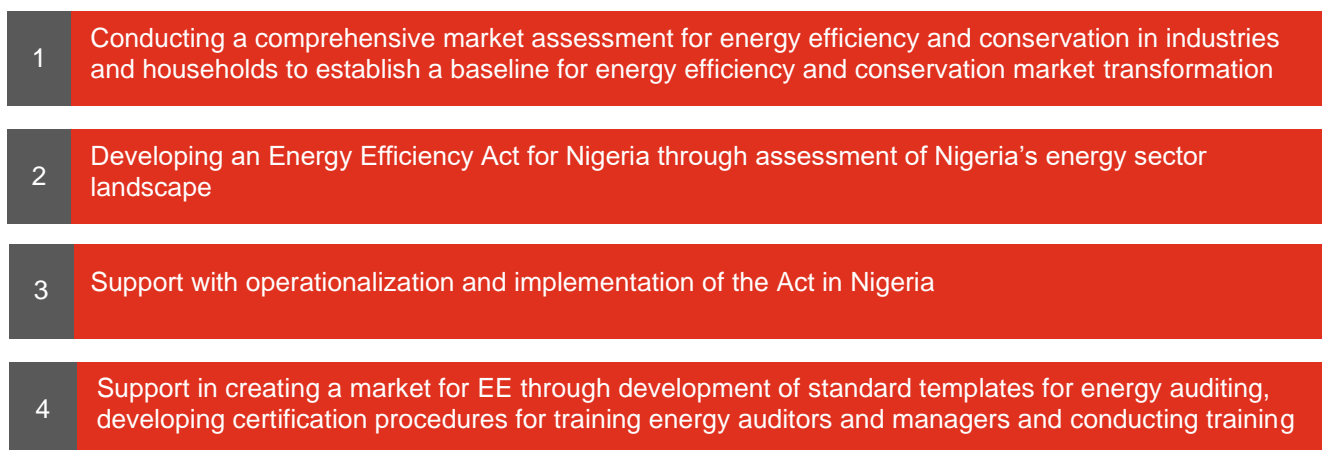


Figure 1 Key Components of the project

1.2. Need for the assignment:

While the country has recognized the need to increase its power generation capacity, it is vital for them to plug up gaps in the current generation setup. Developing the Energy Efficiency Act and Regulations will provide a framework to implement the changes required to achieve this. The assignment would enable a better understanding of the current energy scenario in different sectors of the economy and existing measures in place to improve energy efficiency. It is important to understand the country's current progress before formulating a new policy. The study would provide the framework through which new age technologies and practices be introduced as well as provide an environment conducive to energy conservation measures. It would ease up the complex regulatory environment by consolidating various pre-existing laws and measures and bringing them under one umbrella while also creating institutions to tackle new challenges that arise.

2. Approach for Sector Prioritization

A combination of primary research through our national partners in Nigeria and secondary research (relevant reports and publications) was used to conduct this study. The market scoping exercise involved selecting and finalizing priority subsectors for the Energy Efficiency Act. The selection of priority subsectors was based on a list of factors which will have a direct impact on growth of Nigeria's low carbon growth. The market assessment phase shall involve collating relevant data and developing excel based models to identify feasible EE interventions with their investment needs, pay-back analysis, business models and financing arrangements.

2.1. Policy identification

The Policy and Institutional analysis were carried out through the following 5 steps:

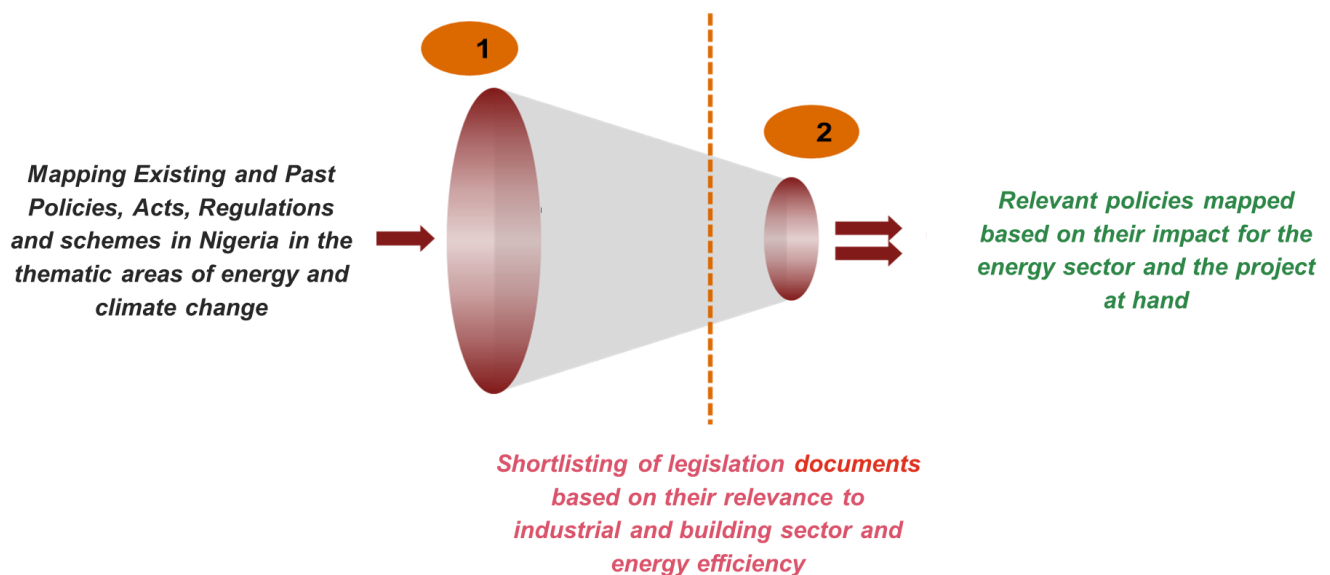


Figure 2 Approach for policy and institutional analysis

1. Desk review

The project team carried out a desk review of the past and ongoing EE programs in Nigeria. The objective of this activity was to collate and map all the relevant past, ongoing and upcoming programs in Nigeria pertaining to the thematic areas of energy efficiency and climate change mitigation. The project team accessed data as available in public domain and documents shared by CTCN. The project team also leveraged national experts to capture the findings of the past programs and policy interventions in Nigeria.

2. Validate findings

The consultant validated the findings of the policy and programs in Nigeria with our national expert and relevant stakeholders. A review of relevant legislation, regulations, and by-laws, as well as policies and actions adopted by relevant government entities to promote energy efficiency has been validated.

3. Program mapping matrix

The policy and program identification matrix will map the relevant policies and programs in the country. This will help us in developing an understanding of the key programs and policies in the Nigeria and support with upcoming activities in the project.

2.2. Priority sector selection

This exercise is fundamental to understand the key avenues which form and important component of Nigeria's energy system and basis for the energy efficiency act to be drafted.

For the same, a combination of primary data collection and stakeholder consultations were used to identify the priority sectors for Nigeria. The steps undertaken for the study are illustrated below.

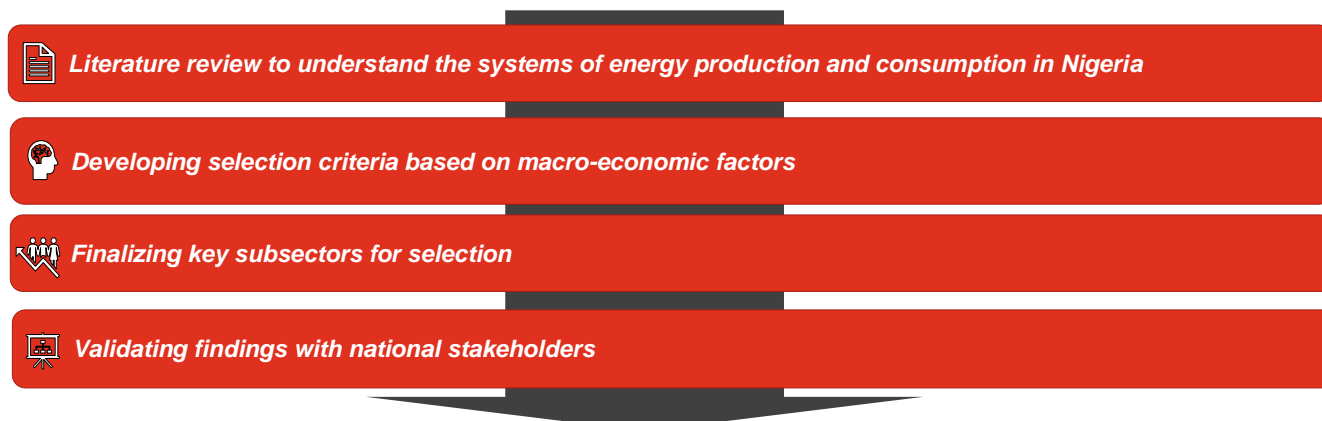


Figure 3 Approach for priority sector selection

The key activities carried out in the above steps are:

1. Literature review

The project started with a review of past EE assignments and country programs, current plans, and strategies, to understand the level of ambition, annual targets, funding needs and plans in order to develop a thorough understanding of the Nigerian industrial and building sector.

The country is dominated by its highly energy-intensive dominated by extractive industries. The consultant shall review and assess the current situation of technologies and government policies focused to reduce the energy use intensity of the industrial and building sector. Our team has undergone a preliminary analysis of energy efficiency in Nigeria.

2. Developing selection criteria

The project team developed a selection criterion to shortlist the key demand sectors in Nigeria. The selection criteria were based on various macro and micro economic factors and their impact on Nigerian economy. The team incorporated the criteria used globally to select priority sectors, for example India uses a threshold value of energy consumption for energy consumers to become the priority subsectors.

3. Finalizing key subsectors

The key subsectors were finalised based on the selection criteria and the selection matrix. The identified key subsectors were then used for validation from the relevant national stakeholders.

4. Validating findings with national stakeholders.

After shortlisting the key subsectors, the team discussed the same with the national level stakeholders for their inputs and changes. The selected subsectors shall form the basis of further project components.

A detailed description of the selection criteria is shown along in the upcoming sections.

3. Policy landscape of Nigeria

Project team with support from our national partners assessed the already notified and policies that are under development, with the objective of identifying policy/regulatory headwinds and tailwinds for demand side energy efficiency and finding ways to align the project activities with the national and sectoral policy framework. The key points from the policies are given in the subsequent section.

A detailed list of policy mapping exercise is attached as **Annexure - 1**

An assessment of the current policy infrastructure with reference to Nigeria's existing scenario was carried out. The key findings of the exercise are shown along:



1. Lack of Policy Continuity from Successive Government Changes:

The leading reason for the failure of many policies in Nigeria is lack of policy continuity following successive changes in Government. Changes in government often results in change in leadership, management and vision in the agencies and regulators that are driving the implementation of policies.

2. Voluntary Nature of Several Policies Resulting in Compliance Issues:

A very significant number of the mapped policies that impact energy efficiency do not have regulatory/ statute backing. Successful implementation therefore is largely dependent on the goodwill of the government agencies anchoring it and the willingness of the private sector to comply with it.

3. No dedicated oversight commission:

Energy efficiency policies in Nigeria are often initiated by different agencies, commissions and presidential committees that do not necessarily work in synchronization. The absence of a central coordinating commission has impacted on the success of several policies.

4. Weak Monitoring and Implementation:

This is the direct consequence of all the foregoing factors taken together.

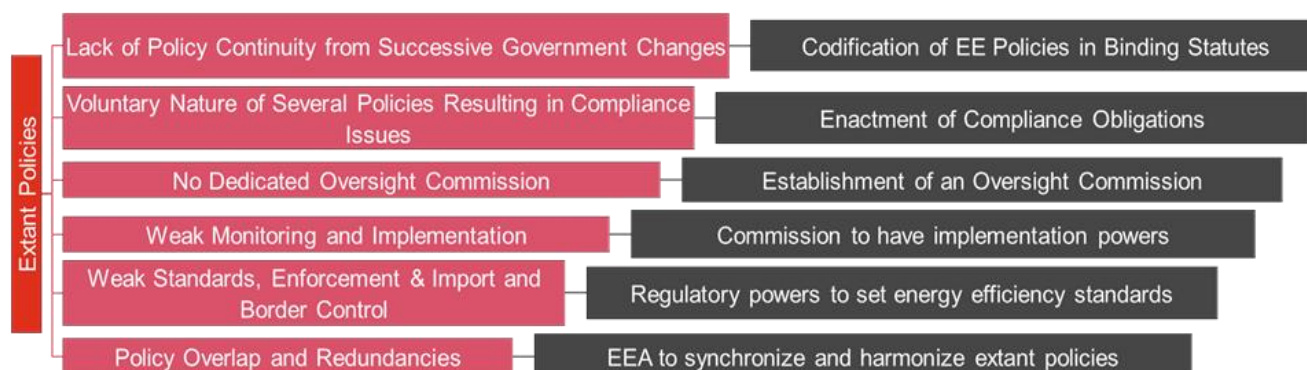
5. Weak Standards, Enforcement & Import and Border Control:

The weak control of the importation of appliances (industrial and domestic), equipment and other electronic gadgets into Nigeria has insulated in a serious inefficiency in enforcing energy saving and efficiency standards across households and industrial equipment and appliances that are necessary to achieve energy efficiency.

6. Policy Overlap and Redundancies:

There are way too many overlapping policies and regulations thus resulting in conflicts and inconsistencies in the implementation of energy efficiency policies. This makes it difficult to get private sector buy-in.

Energy Efficiency Act (EEA) Interventions



As a part of our assessment, we carried out assessments and mapping of policy infrastructure of Nigeria. However, the following policies will be influential in drafting the Energy Efficiency Act of the country.

Policy	Year	Brief
National Renewable Energy and Energy Efficiency Policy	2015	<p>The National Renewable Energy and Energy Efficiency Policy (NREEEP) sets out the Nigerian government's blueprint to increasingly harness the country's renewable energy and energy efficiency resources in driving sustainable development across the country. Developed in line with the country's national energy policy, the NREEEP outlines the government's programs and measures for deploying renewable energy and energy efficiency technologies and practices towards facilitating Nigeria's green transition.</p> <p>Energy Efficiency Targets</p> <ul style="list-style-type: none"> • Production of guidelines on all the key components of energy efficiency by 2020. • Enactment of all relevant legislation required for policy implementation by 2020. • Attain replacement of 40% (by 2020) of old and inefficient appliances in Nigeria with energy efficient appliances. • Sustain best energy efficiency practices beyond 2030.
The National Energy Efficiency Action Plan (NEEAP)	2016	The National Energy Efficiency Action Plan (NEEAP) sets out the implementation strategy for the National Renewable Energy and Energy Efficiency Policy (NREEEP) (2015). It provides an overview on concrete policy and regulations, laws, incentives and measures to be implemented to achieve Nigeria's energy efficiency targets and the Sustainable Energy for All (SE4ALL) goals.
National Building Energy Efficiency Code	2017	The national building energy efficiency code is a set of minimum standards for energy efficient building in Nigeria.
Minimum Energy Performance Standards	2019	Standards and Labelling Programme for Nigerian Industries and appliances

4. Sub Sector prioritization

The first step involved in this activity was to map the key demand sub sectors in the industrial and household sectors. The demand subsectors in the household and industrial sector were mapped from data sourced through public domain (Nigeria Bureau of Statistics and other data sources available).

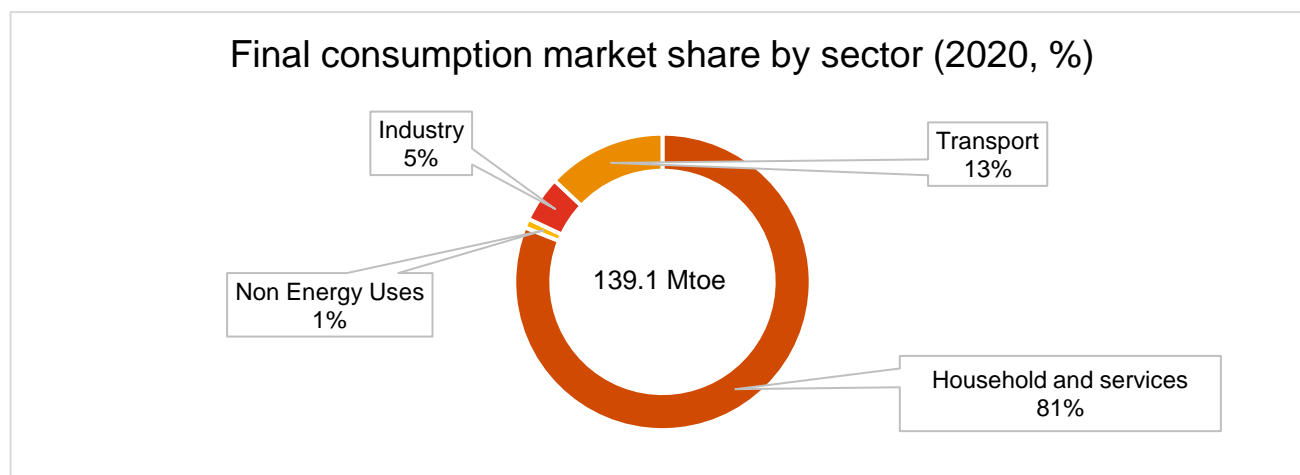


Figure 4 Share of final energy consumption

As per Nigerian Bureau of Statistics the prominent Nigerian industrial subsectors are:

Table 1 Prominent Industrial sub sectors in Nigeria

Industry Sector	Gross domestic product at current basic prices annual, 2017 - 2018	
	2017	2018
MINING AND QUARRYING	10,481,972.51	13,674,382.24
Crude Petroleum and Natural Gas	10,355,946.14	13,449,591.75
Coal Mining	9,435.23	9,782.10
Metal Ores	7,933.20	10,904.02
Quarrying and Other Minerals	108,657.94	204,104.37
MANUFACTURING	10,044,484.94	12,455,527.90
Oil Refining	211,840.22	210,659.34
Cement	846,353.13	1,345,750.67
Food, Beverage and Tobacco	4,568,843.85	5,332,358.79
Textile, Apparel and Footwear	2,344,799.63	2,965,689.27
Wood and Wood Products	305,125.83	350,355.36
Pulp, Paper and Paper Products	86,192.51	128,587.19
Chemical and Pharmaceutical Products	225,125.81	279,933.99
Non-Metallic Products	418,240.11	590,216.54
Plastic and Rubber products	327,230.57	389,827.61
Electrical and Electronics	6,629.76	9,007.81
Basic metal, Iron and Steel	243,378.22	282,306.36
Motor vehicles & assembly	60,296.77	114,018.88
Other Manufacturing	400,428.53	456,816.09

The key demand sub sectors in household sector are:

Sub sectors	Components
Households	<ul style="list-style-type: none"> Independent Houses Apartments and Buildings
Commercial	<ul style="list-style-type: none"> Office Shopping Complex Hotel School Warehouses
Public Buildings	<ul style="list-style-type: none"> Public buildings and Government Offices

4.1. Selection matrix for priority subsectors

The key pointers for the selection matrix for the priority sector are as follows:

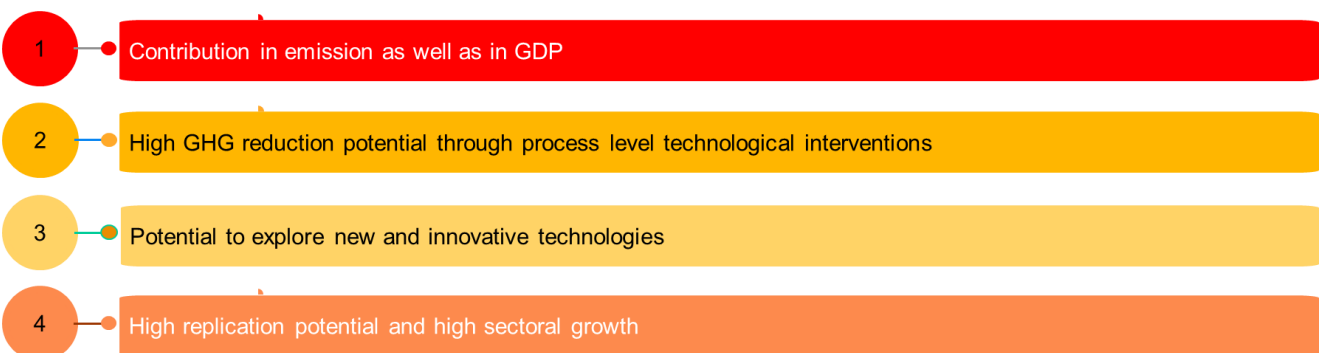


Figure 5 Key pointers for selection matrix

The key pointers further helped in bifurcating the industries and household subsectors. The shortlisted sectors were then further classified using the Non-Energy Sector Selection Criteria and Energy Sector Selection criteria as shown along in the figure:

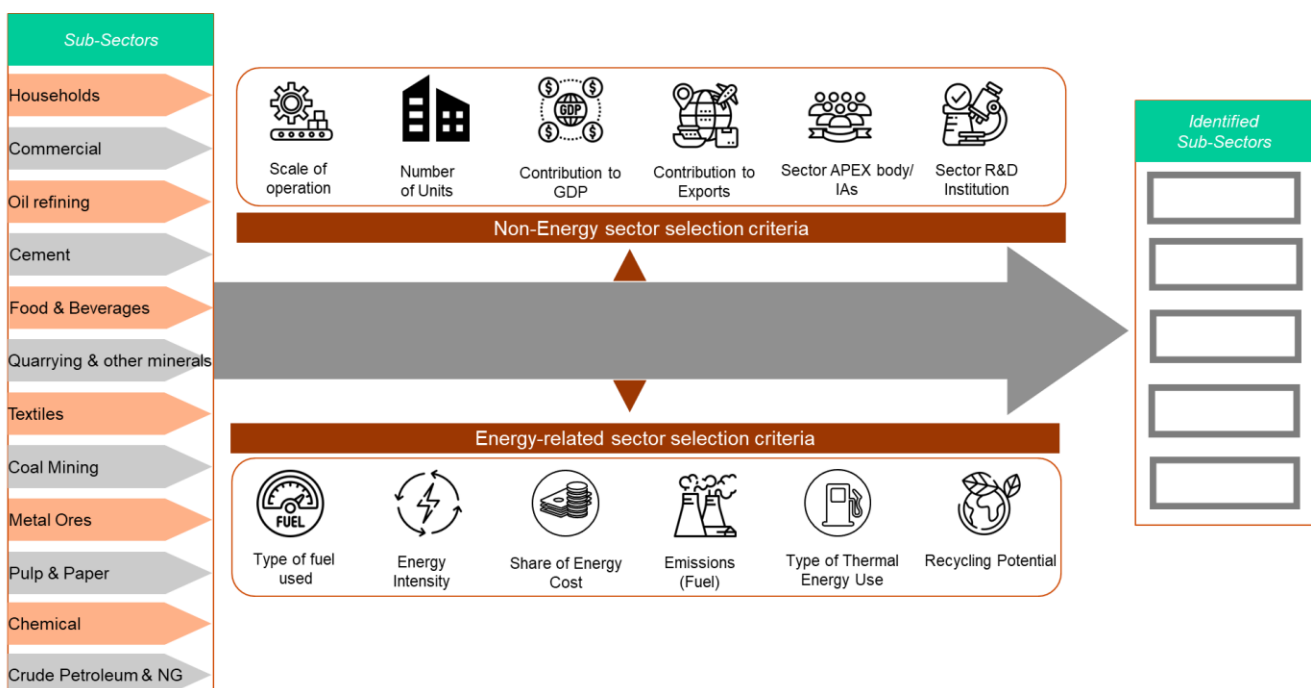


Figure 6 Selection criteria for priority subsectors

These criteria helped us in collating a list of subsectors which were the key demand sectors of the country. The team with support from its national consultants in Nigeria, gathered data for finalizing the subsectors in the country.

The data so collated for the industries was the rated based on the subsector identification matrix, developed by the team. The team developed the matrix after consultations with the national stakeholders and other key stakeholders of the assignment. The key to the stakeholder selection matrix is showcased along:

Table 2 Marking scheme for the selection matrix

Prioritization Criteria	Category	Scoring
Number of Units (Pan Nigeria)	Range	1,2,3
Scale of Operation	Micro	1
	Small	2
	Medium	3
	Large	4
Contribution to GDP (%)	Low	1
	Medium	2
	High	3
Contribution to Export (%)	Low	1
	Medium	2
	High	3
Type of Thermal Energy Use	Solid fuel (e.g., Coal)	4
	Liquid fuel (e.g., Fuel Oil)	3
	Gaseous fuel (e.g., NG)	2
	RE (incl. biomass)	1
Energy Contribution	Thermal %	2
	Electrical %	1
Share of Energy Cost	Low (<5%)	1
	Medium (5-15%)	2
	High(>15%)	3
Energy Intensity (TOE/ton product)	Low	1
	Medium	2
	High	3

The criterion was used to prioritize the list of subsectors in Nigeria. For the household sector the team was able to identify:

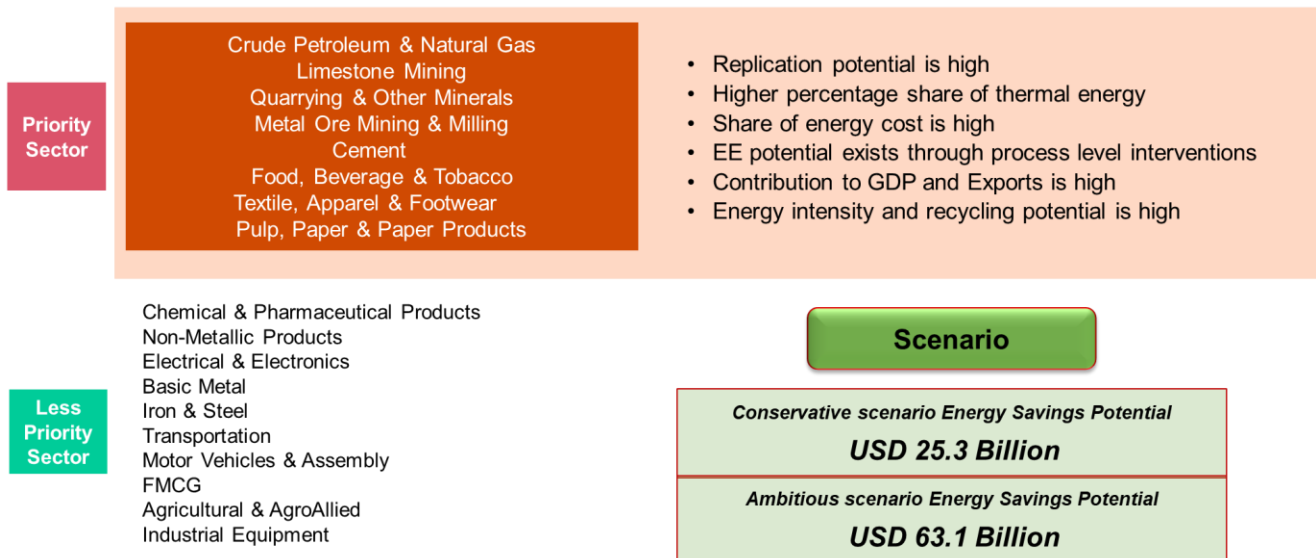
- Apartment / Society Building
- Office
- Shopping Complex
- Hotel
- Public Building

In case of industries the team identified mining and quarrying as the key priority industrial sector. Under this subsector, the team was able to identify:

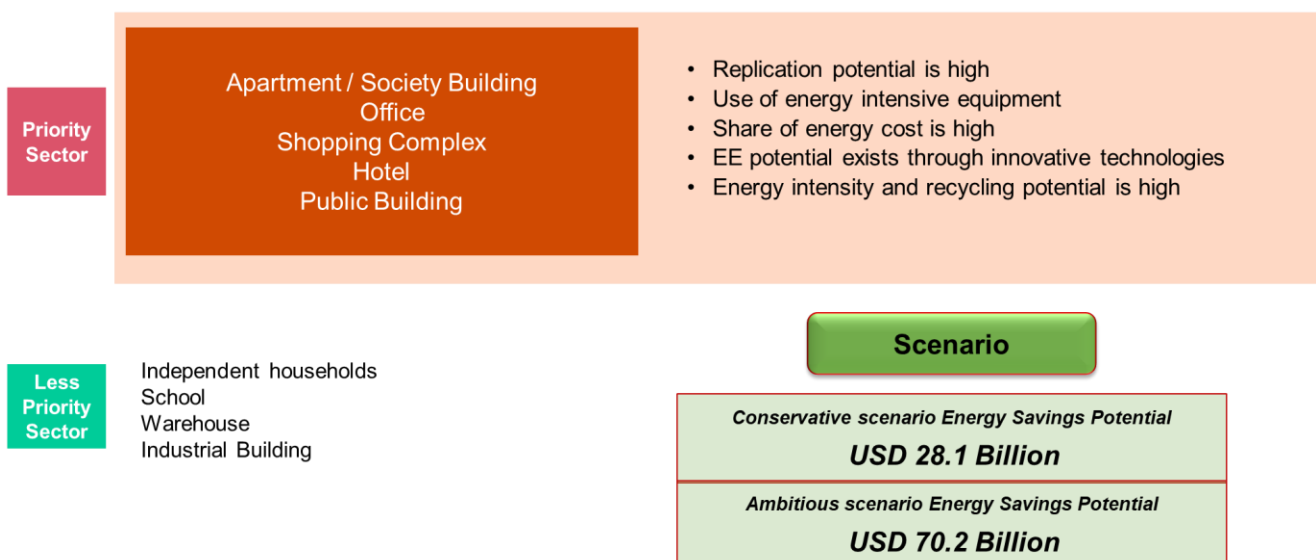
- Crude Petroleum & Natural Gas
- Limestone Mining
- Quarrying & Other Minerals
- Metal Ore Mining & Milling
- Cement
- Food, Beverage & Tobacco

- Textile, Apparel & Footwear
- Pulp, Paper & Paper Products

Industry: Sector prioritization and EE potential



Building: Sector prioritization and EE potential



The prioritized subsectors for Nigeria have been mapped, however the list of prioritized subsectors will be finalized post discussion with key stakeholders for further project activities.

Annexure - 1

S/N	Category (Regulation or Law; Policy or Action Plan/Strategy/ or Long Term Goal)	Instrument (Regulatory/ Market based/Financial/ Voluntary)	Year	Name	Ministry/ Department	Sector/ Subsector	Brief
1	Regulation	Mandatory	2022	Guidelines for management of fugitive methane & GHG emissions	Upstream Petroleum Regulatory Commission (NUPRC)	Oil & NG Extraction (Upstream)	<p>Establish actions & mechanisms for operators to prevent & control the emission of greenhouse gases from upstream oil and gas operations at new and existing facilities. Elimination of routine gas flaring by 2030, and a 60% reduction in fugitive methane emissions/leakages from oil & gas operations by 2031 Compliance Directive for operators –</p> <ul style="list-style-type: none"> • Submit Plan to reduce greenhouse gas emissions (yearly percentage reduction targets) and long-term strategies to attain net-zero. • Set out timeline to replace single cycle steam turbines with combine cycle by 2030. This requirement shall be implemented immediately for new projects. • Plans to achieve 2.5% per year reduction in Energy intensity (EI), which is reduction energy utilization/demand from the base year. The base year is 2020 in line with the NDCs.
2	Policy	Financial	2022	National Clean Cooking Scheme	FMENV	Household	<p>This policy will help the federal government achieve its goal of universal access to clean cooking. Currently, more than three-quarters of the population of Nigeria use solid fuel for domestic cooking and heating requirements. To further strengthen the scheme, in 2014, the Federal Government approved the sum of NGN 9billion for the distribution of 750, 000 Clean Cook Stoves and 18,000 Wonder bags to Nigerians, in a bid to stop the depletion of forest resources caused by indiscriminate felling of trees. In five years, the NCCS aims to distribute at least four million clean cookstoves in each of the six geo-political zones</p>

							and provide 20 million clean cookstoves throughout- the country.
3				Nigerian Clean Energy Access Programme			Distributing 150 million energy efficient bulbs under the Clean Development Mechanism (CDM).
4	Regulation	Regulatory	2019	Minimum Energy Performance Standards	Federal Government	Buildings, Commercial & Household	Requirements for domestic and commercial air conditioning products The MEPS currently covers the three most energy-consuming electrical products in households (lighting, refrigerators, and air conditioners)
5	Regulation	Regulatory	2017	National Gas Policy	Ministry of Petroleum Resources	Power generation	Outlines the key areas for improvement, including regulation that governs the full process of the gas chain and to reduce regulatory body overlap in responsibilities.
6	Regulation	Regulatory	2017	National Petroleum Policy	Ministry of Petroleum Resources	Power generation	Aims to reduce regulatory body cross-over and more determined aims and goals.
7	Long Term Goal	Voluntary	2021	NDC 2021	Federal Government	Industry & Household (Multi-sector)	Nigeria's NDC proposes to reduce 20% of its GHG emissions relative to BAU scenario by 2030 unconditional of external help and 45% conditional on international support. The baseline year for the BAU projections is 2018, with an estimated 347 MtCO ₂ e emission. According to updated GHG projections, Nigeria recalculated the amount of GHG emissions projected to 2030, estimating in this updated NDC a total of 453 MtCO ₂ e in 2030 rather than the 898 MtCO ₂ e estimated in the INDC. The NDC emissions reduction strategy includes CO ₂ , CH ₄ , N ₂ O, HFCs, black carbon and air pollutant gases.
8				2050 Long-Term Vision			Nigeria's LTS sets out the following target: "by 2050, Nigeria is a country of low-carbon, climate-resilient, high growth circular economy that reduces its current level of emissions by 50%, moving towards having net-zero emissions across all sectors of its development in a gender-responsive manner".
9			2009	Nigeria Vision 20:2020			
10	Policy	Financial	2021	Nigeria Economic Sustainability Program (NESP)	Federal Government	Residential, Commercial, MSME (Multi-sector)	The plan is articulated around 10 key projects, two being directly related to the energy sector - Installation of Solar Home Systems: \$619 million commitment to the Solar Homes Systems Project, which will help install solar home systems for up to 5 million households, serving

							<p>about 25 million individual Nigerians who are not currently connected to the national grid.</p> <p>Promotion of Domestic Gas Utilisation: NGN 113 billion in order to promote the use of gas (CNG and LPG), which Nigeria sees as a bridge from more polluting fossil fuels to cleaner energy.</p> <ul style="list-style-type: none"> • Fiscal and monetary measures • Real sector measures • Mass Housing Strategy • Jobs for Youth & Women • National Gas Expansion Programme • Supporting MSMEs
11				Medium Term National Development Plan 2021-25			The draft Medium Term National Development Plan 2021-2025 (March 2021) aims to increase oil production to 3 mb/d, deregulate the downstream sector, adopt the Petroleum Industry Bill, monetize 80% of the flared gas, resolve the electricity system value chain constraints, and develop 1 GW of renewables by 2025.
12				LT - LEDS (Long-term Low-emission development strategy)			
13				Kigali Cooling energy action plan (K-CEP)			
14				Sustainable energy for All (SE4ALL) Action Agenda 2016			
15				Sovereign Green Bonds			
16				Climate finance accelerator programme			
17		-	-	Off-Grid Electrification Strategy			

18				Economic and Recovery Growth Plan (ERGP)			Economic Recovery and Growth Plan 2017-2020 (ERGP, 2017) intended to increase local oil production to 2.5 mb/d and to reach at least 10 GW of operational power capacity in 2020. This Plan is replaced by Medium Term National Development Plan 2021-2025
19				Power Sector Recovery Programme (PSRP)			In 2017, the government launched the Power Sector Recovery Programme (2017-2021), which intends to ensure baseline power generation, transmission, and distribution, improve DISCOs performance, and address issues constraining gas availability to the power sector. The plan seeks to restore the sector's financial viability, improve power supply reliability, and establish a contract-based electricity market. The plan is supported by a US\$3bn World Bank loan, which could expand by US\$1bn at a later stage.
20		In Process		National Climate Change Policy			Focuses on Implementing adaptation and mitigation measures that promote low-carbon development and; developing and implementing appropriate strategies and actions to reduce the vulnerability of Nigerians to the impacts of climate change across all sectors
21	Action Plan	Voluntary	2019	National Action Plan to Reduce Short-lived Climate Pollutants (SLCP)	Federal Government	Industry & Household	This action plan identified 22 relevant mitigation actions in the energy, transport, buildings, waste, industry and agriculture sectors. These will be implemented during a 5-year period and can potentially lead to reductions in SLCPs and CO2 by 2030. The full implementation of the measures included in the National SLCP Plan could reduce total emissions of black carbon and methane by 82% and 62% against baseline projections, respectively, by 2030. Industry - 50% improvement in energy efficiency by 2050 Household - 80% of household using modern fuels for cooking in 2030; 20% household using improved biomass stoves for cooking in 2030
22				The Electric Power Sector Reform Act 2005 CAP E7, Laws of the Federation of			A major law that governs the Nigerian electricity industry, which includes electricity generation, transmission, distribution, supply, and trading. The Act is established to provide for the formation of companies to take over the functions, assets, liabilities, and staff of the National Electric Power Authority, to develop competitive electricity markets, to establish the Nigerian Electricity Regulatory Commission (NERC) as an

				Nigeria 2004 (EPSRA)		<p>independent regulatory body charged with the responsibility of licensing and regulating persons engaged in the generation, transmission, system operation, distribution and trading of electricity in Nigeria. The purpose of the Act is also to enforce performance standards, consumer rights protection, and to provide for the determination of tariffs among other matters connected with electricity generation, transmission and distribution.</p> <p>the Electric Power Sector Reform Act of 2005 privatized the national electricity company, PHCN (Power Holding Company of Nigeria), which ended in 2014 with the creation of 11 distribution companies (DISCOs) and 6 generation companies (GENCOs).</p>
23				National Renewable Energy and Energy Efficiency Policy 2015		<p>The NREEEP is a policy document approved by the Federal Executive Council (FEC). The purpose of the policy is to set out a framework for action to address Nigerian's challenge of inclusive access to modern and clean energy resources, improved energy security and climate objective, also to recognize the significance of renewable electricity generation activities by providing for the development, operation and maintenance, and upgrading of new and existing renewable electricity generation activities.</p>
24			2016	The National Energy Efficiency Action Plan (NEEAP)		<p>The National Energy Efficiency Action Plan (NEEAP) sets out the implementation strategy for the National Renewable Energy and Energy Efficiency Policy (NREEEP) (2015). It provides an overview on concrete policy and regulations, laws, incentives and measures to be implemented to achieve Nigeria's energy efficiency targets and the Sustainable Energy for All (SE4ALL) goals.</p> <p>Nigeria targets a 100% use of efficient lighting by households by 2030, a 50% increase in energy efficiency in energy-intensive sectors (transport, power and industry) compared to baseline, the curbing of firewood demand below supply capacity, and a reduction in T&D losses to less than 10% (15% in 2020).</p>
25				Environmental Impact Assessment		<p>the Act makes it mandatory for environmental impact assessment to be conducted for projects likely to have significant effects on the environment, which also includes power projects. a power developer who intends to carry out</p>

				Act Cap E2, LFN 2004			power generation operations through the use of renewable energy must register the project with the Federal Ministry of Environment for an environmental impact assessment as Section 2 of the Act provides for the assessment of public or private projects likely to have a significant impact on the environment.
26	Regulation	Regulatory	2008	National Building Code	Federal Republic of Nigeria	Buildings, Commercial & Household	The aim of this Code is to set minimum standards on Building Pre-design, designs, construction and post-construction stages with a view to ensuring quality, safety and proficiency in the building Industry.
27	Regulation	Regulatory	2017	National Building Energy Efficiency Code 2017	Federal Ministry of Works And Housing (FMWH)	Buildings, Commercial & Household	Building Energy Efficiency Code (2017) sets standards for minimum efficiency requirements for new buildings. The National Energy Efficiency Building Code seeks to ensure a constant availability of electricity in Nigeria and to implement energy efficiency in the building sector according to overarching policies.
28	Policy	Financial	2020	Framework for implementation of intervention facility for National Gas Expansion Programme (NGEP)	Central Bank of Nigeria & Ministry of Petroleum Resources (MPR)	Power generation, household, industry subsectors such as petrochemical, textile industries	To make CNG for power generation, LPG the fuel choice for cooking, captive power and small industrial complexes. Central Bank of Nigeria introduces the N250 billion intervention facility to help stimulate investment in the gas value chain. The objectives of the facility include improving private financing access, stimulating investments in infrastructure, adopting CNG (Transport) and LPG, developing gas based industries such as petrochemical, and boosting employment. Interest rate under the intervention - 5.0% p.a. as compared to 9% p.a. (general)
29	Law	Regulatory	2021	Petroleum Industry Act	Federal Government/ Minister of Petroleum	Oil & NG Extraction (Upstream & Downstream)	Creates the Nigerian Upstream Regulatory Commission, which is responsible for the technical and commercial regulation of upstream petroleum operations; Establishes the Nigerian Midstream and Downstream Petroleum Regulatory Authority, which is responsible for the technical and commercial regulation of midstream and downstream petroleum operations; Gas flaring or venting is prohibited except in emergencies, for safety reasons or with an exemption granted by the competent authority; All licensees shall install metering equipment to measure flared volumes
30			2006	Rural Electrification	Federal Government	Power generation	Nigeria targets to reach 75% electrification rate by 2020. Achieving this target will involve electrifying 471 000 rural

				Strategy and Implementation Plan of Nigeria			households each year from 2007 to 2020. Subsequently, Nigeria plans to reach a full electrification rate by 2040 connecting 513 000 households each year from 2020 to 2040.
31	Regulation	Regulatory	2013	Biofuels blending mandate	Federal Government	Oil & NG Extraction (Upstream & Downstream)	The long-term goal is to achieve 100% domestic biofuels production by 2020. The policy mandates: Blending of ethanol up to 10% with gasoline to achieve the E10 blend. 20% blend of biodiesel with petro diesel.
32	Regulation	Regulatory	2016	Nigerian Electricity Regulatory Commission Mini-Grid Regulation			Nigeria adopted the Mini-Grid Policy in order to regulate a sector of mini-grids and to create enabling environment for further investments in order to speed up electrification process.
33	Action Plan	Financial	2011	Renewable Energy Master Plan (REMP)	Federal Ministry of Environment	Power generation	Renewable Energy Master Plan (REMP) seeks to increase the supply of renewable electricity from 13% of total electricity generation in 2015 to 23% in 2025 and 36% by 2030. Renewable electricity would then account for 10% of Nigerian total energy consumption by 2025 The Plan also encompasses installed capacity targets for a set of suitable renewable energies, as follows: Small-hydro: 600 MW in 2015 and 2, 000 MW by 2025; Solar PV: 500 MW by 2025; Biomass-based power plants: 50 MW in 2015 and 400 MW by 2025; Wind: 40 MW for wind energy by 2025; the REMP targets higher electrification rates, from 42% in 2005 to 60% in 2015 and 75% by 2025.
34			2016	7 Big Wins Initiative	Federal Ministry of Petroleum Resources		
35				Local Content Act (2010)	Nigerian Content Development and Monitoring Board (NCDMB)		Local Content Act (2010) requires companies bidding for licenses to submit a Nigerian Content Plan to the Nigerian Content Development and Monitoring Board (NCDMB). Foreign corporations must show that 50% of the equipment intended to be used is owned by their local affiliate. It also imposes limits on foreign management. The 10-year strategic roadmap released in 2017 by the NCDMB targets in-country retention of

							US\$14bn out of the estimated US\$20bn yearly spent within a decade (70%, against 26-30% today).
36				Domestic Gas Supply Obligation			Since 2008, as part of the Domestic Gas Supply Obligation (DGSO), the Federal Government requires gas producers to reserve a part of their output to supply the domestic market. This amount has been set at around 40 bcm for 2019, accounting for roughly 85% of the production. However, in 2018, the DGSO was twice the volume actually delivered.
37				Zero Routine Flaring by 2030			In February 2021, the country committed to stop gas flaring by 2025. Previously, in 2016, Nigeria had pledged to end routine gas flaring by 2020 as part of the country's commitment under the World Bank-led "Zero Routine Flaring by 2030" Initiative. Gas flaring has declined from 25 bcm in 2000 to 7 bcm in 2020, according to the World Bank.
38	Policy	Financial	2018	National Gas Flare Commercialization Programme (NGFCP)	Minister of State for Petroleum Resources	Oil & NG Extraction (Upstream)	In 2018, the President approved the Flare Gas Regulations, and created the National Gas Flare Commercialization Programme (NGFCP), which provide a commercial approach to the elimination of routine gas flaring by 2020 by mobilizing private sector capital towards gas flare capture projects. The country estimates an average loss of US\$1bn/year due to its incapacity to recover and trade flared gas and could eliminate 20 MtCO ₂ /year of CO ₂ emissions.
39				Willing Seller, Willing Buyer			In 2019, the government presented a new electricity distribution policy named "Willing Seller, Willing Buyer". Under the scheme, electricity would be wheeled directly from the generation companies to willing consumers who are ready to fully pay their bills.
40			2013-14	Transitional Electricity Market (TEM)			In 2013 and 2014, the NERC developed and issued a set of interim rules in order to operate the electricity market. A Transitional Electricity Market (TEM) started in 2015 as the first private power market in Africa. Under the TEM, electricity trading is done through contracts; there should be no more governmental control and administration.
41			2016	National Renewable Energy Action Plan			According to its National Renewable Energy Action Plan (2016), Nigeria targets 29% of its electricity production from renewables by 2030, including large hydro (19% in 2020), with 13.8 GW of capacity.

42				National Production Monitoring Systems	The Federal Government of Nigeria		The Federal Government of Nigeria introduces National Production Monitoring Systems (NIPMS) to monitor the royalty payables and demand notices from all organizations dealing in petroleum in Nigeria.
43	Policy	Financial	2022	2022 Premium Motor Spirit (PMS) subsidy scheme			The Nigerian government suspended the removal of its petrol subsidy scheme in 2022 and budgeted NGN 4 trillion for the year. The President announced in October 2022 the scheme would be ended the following year.
44				Nigeria Energy Transition Plan			
45				Africa Minigrids Program (AMP)			
46				Nigerian Energy Support Programme (NESP)			
47	Regulation	Regulatory	2018	Flare Gas (Prevention of Waste and Pollution) Regulations 2018	Department of Petroleum Resource	Oil & NG Extraction (Upstream)	The regulation aims to reduce the environmental and social impact caused by the flaring of methane/natural gas in Nigeria.
48	Regulation	Regulatory	2018	Guidelines for Grant of Permit to Access Flare Gas	Department of Petroleum Resource	Oil & NG Extraction (Upstream)	The purpose of the permitting system to access flare gas, is to induce economic activity to acquire and sell associated methane gas, to reduce flaring and venting.
49	Policy	Financial	2016	Feed-in Tariff for Renewable Energy	Nigerian Electricity Regulatory Commission	Power generation	By 2020, a total of 2,000 MW shall be generated through renewables like biomass, small hydro, wind and solar. According to the new regulation, the electricity distribution companies (Discos) will be obliged to source at least 50% of their total procurement from renewables.

				Sourced Electricity			
51			2006	Rural Electrification Strategy and Implementation Plan	Rural Electrification Agency (REA)	Power generation	The Rural Electrification Strategy and Implementation Plan of Nigeria was adopted in 2006 with a goal to set electrification targets and establish ways of achieving them.
52	Policy	Voluntary	2003	National Energy Policy, 2003	Energy Commission of Nigeria	Power	The key objectives of the Policy are: (1) Ensuring access to energy for all; (2) Enhancing employment creation; (3) Ensuring security of energy supply; (4) Stimulating economic growth and development; and (5) Ensuring environmental and health sustainability.
53	Policy	Voluntary	2015	ECOWAS Renewable Energy Policies	ECOWAS	Power	The major aim of the policy is to galvanize the states of the ECOWAS region to pursue universal access to reliable, efficient and clean electricity.
54	Policy	Voluntary	2015	ECOWAS Energy Efficiency Policies	ECOWAS	Power	The energy efficiency policy will complement the existing array of ECOWAS policies by addressing the challenge of making the most efficient use of the region's energy resources. Together with the policies on energy access and renewable energy, it will constitute a comprehensive ECOWAS policy framework for achieving Sustainable Energy for All, aiming for universal access by 2030.
55	Policy	Voluntary	2016	National Energy Efficiency Action Plan	National Council on Power		National Energy Efficiency Action Plans (NEEAP) is a work that was initially designed by the ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE) and adopted by the 15 ECOWAS members-states. This National Energy Efficiency Action Plan (NEEAP) includes baseline data and information on energy efficiency activities and programs in Nigeria, barriers to the development and promotion of energy efficiency in the country, and suggested achievable energy efficiency targets, incl. gender-disaggregated indicators, based on national potentials and socio-economic assessments.
56	Policy	Voluntary	2019	Nigeria Electrification Roadmap	Federal Executive Council	Power Generation	Nigeria Electrification Roadmap is a document created with a proposition of a development roadmap for future electrification in the country based on a collaboration between the Federal Government of Nigeria and Siemens. The Roadmap is structured in three phases

57	Regulation	Regulatory	2014	Regulation on National Content Development for the Power Sector	NERC	Power	The Regulation on National Content Development for the Power Sector aims to promote the deliberate utilization of local human workforce and material resources across the value chain of the Nigerian Electricity Supply Industry (NESI).
58	Policy	Voluntary	2017	Power Sector Recovery Programme	Federal Executive Council	Power	The Power Sector Recovery Programme (PSRP) is a series of policy actions, regulatory, operational, governance, and financial interventions being implemented by the Federal Government of Nigeria. It aims to strengthen the Nigerian Electricity Supply Industry for future growth.
59	Regulation	Regulatory	2007	The National Environmental Standards and Regulations Enforcement Agency (Establishment) Act		Environment	Establishes the National Environmental Standards and Regulations Enforcement Agency, the agency responsible for supervising and setting environmental standards and air quality.
60	Strategic Roadmap	Financial	updated 2021	Nigerian Integrated Infrastructure Master Plan (NIIMP)			The National Integrated Infrastructure Master Plan (NIIMP) is government's strategic document which was initially developed in 2012 to guide Nigeria's infrastructure investment, add value to the national economy and in particular enhance private sector participation in infrastructure development

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