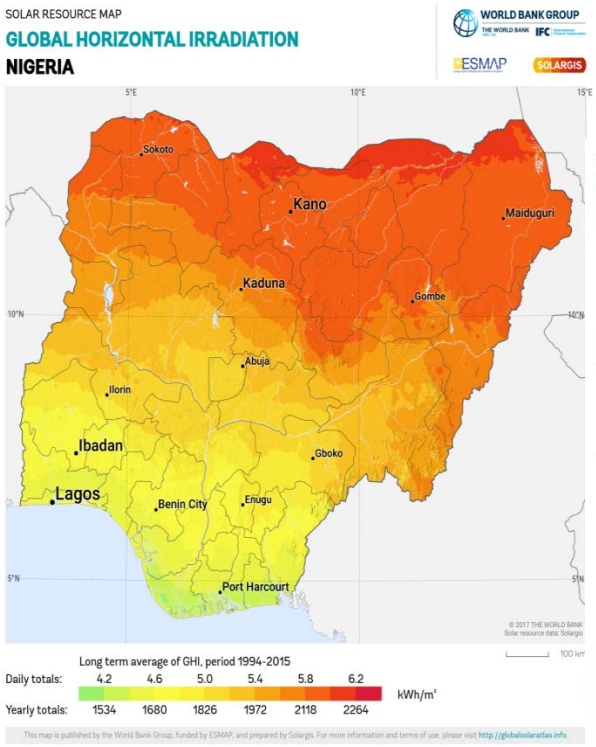
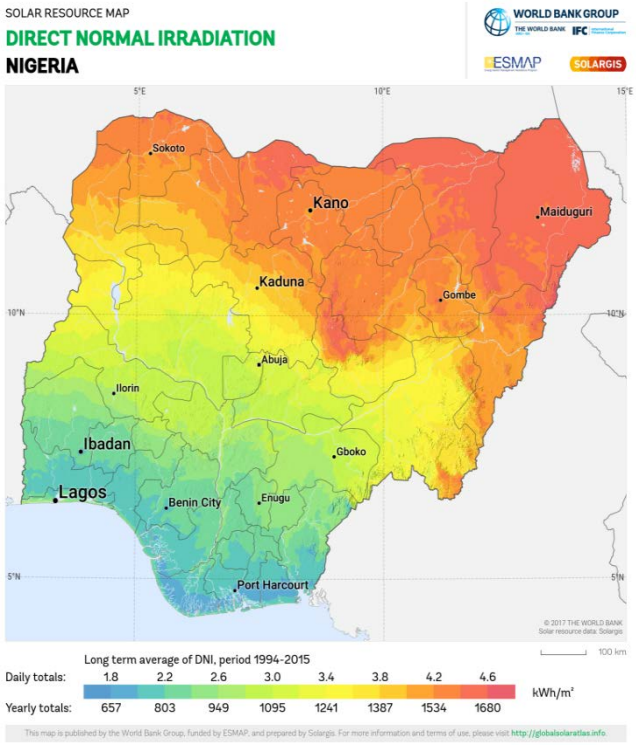
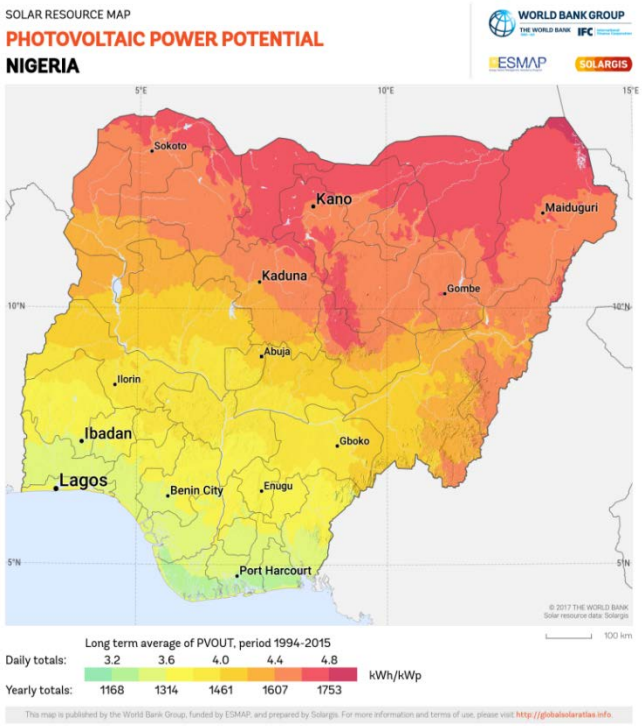
Nigeria; Country Profile

Mohammed Umar Fufore

2019







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General Information

- Population:201million
- GDP ($ml)2018:422,311.2
- No of Households 2019 ('000):42,726.7
- Land area : 923,850 km^2
- Power Generation: 12.5GW installed cap

Organisational Structure

- **Federal Government**
  - Policy Direction, Laws
- **Federal Ministry of Power, Works and Housing**
  - Sector Policy, Monitoring and Liaison with Legislature and Development Partners
- **State Governments**
  - Rural Electrification and Off grid
- **Nigerian Electricity Regulatory Commission**
  - Licensing, tariff and overall Regulation
- **Special Purpose Entity**
  - Manage PPAs and IPP contracts pending when Disco are able to sign such contracts
- **Transco** –
  - Initially state owned but under Private Management Contract
- **GenCos** – Generation along modified plant structure
- **DisCos** – On-grid and Off-grid distribution and sales
- Grid Connected Auto Generators

Energy Reserves & Mineral Resources

Proven crude oil reserves (million barrels)	36,972
Proven natural gas reserves (billion cu. m.)	5,675
Technically Exploitable Large-scale Hydropower potential	10GW

Nigeria is endowed with about 34 solid minerals identified in 450 locations in the country. Some of these minerals include

- gold, iron ore, cassiterite, columbite, wolframite, pyrochlore, monazite, marble, coal, limestone, clays, barites, lead-zinc, etc. and occur in the different metallogenic provinces of Nigeria

Out of which Government has classified seven of these minerals as strategic minerals, which include

- bitumen, gold, coal, iron ore, limestone, lead/zinc ores, limestone and barites.
- Other minerals with good economic prospects are: tin, tantalite, niobium, gypsum, gemstones, kaolin etc.

Current Energy Policy & Measures

Policies

- National Energy Policy 2003
- National Renewable Energy and Energy Efficiency Policy (NREEEP) for the Electricity Sector, 2015
- National Gas Policy, 2017

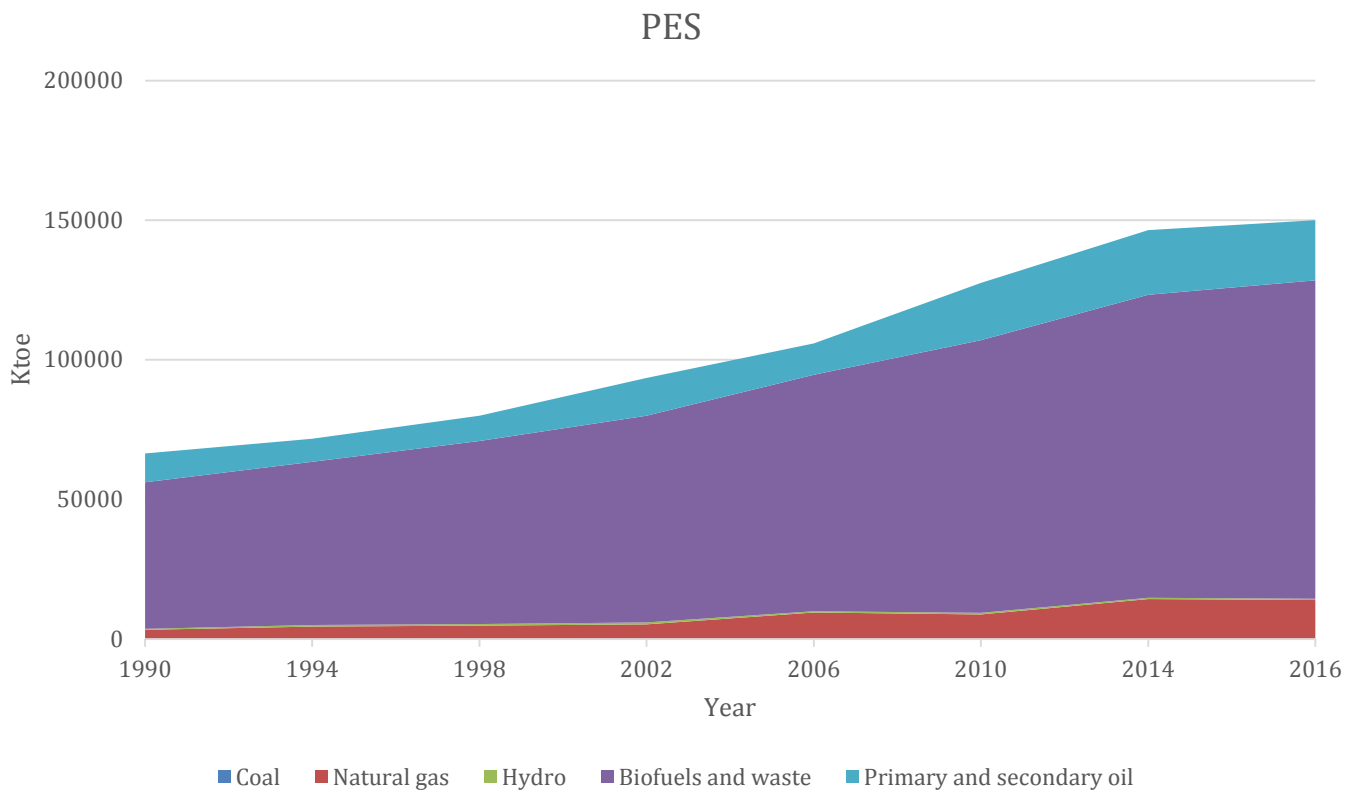
Measures

- Energy Mix: Fit in Tariff, Mini-Grid, Competitive Procurement, Eligible Customer
- Access: REF to improve access in rural areas
- Energy Efficiency: Emission reduction, Commercial building code

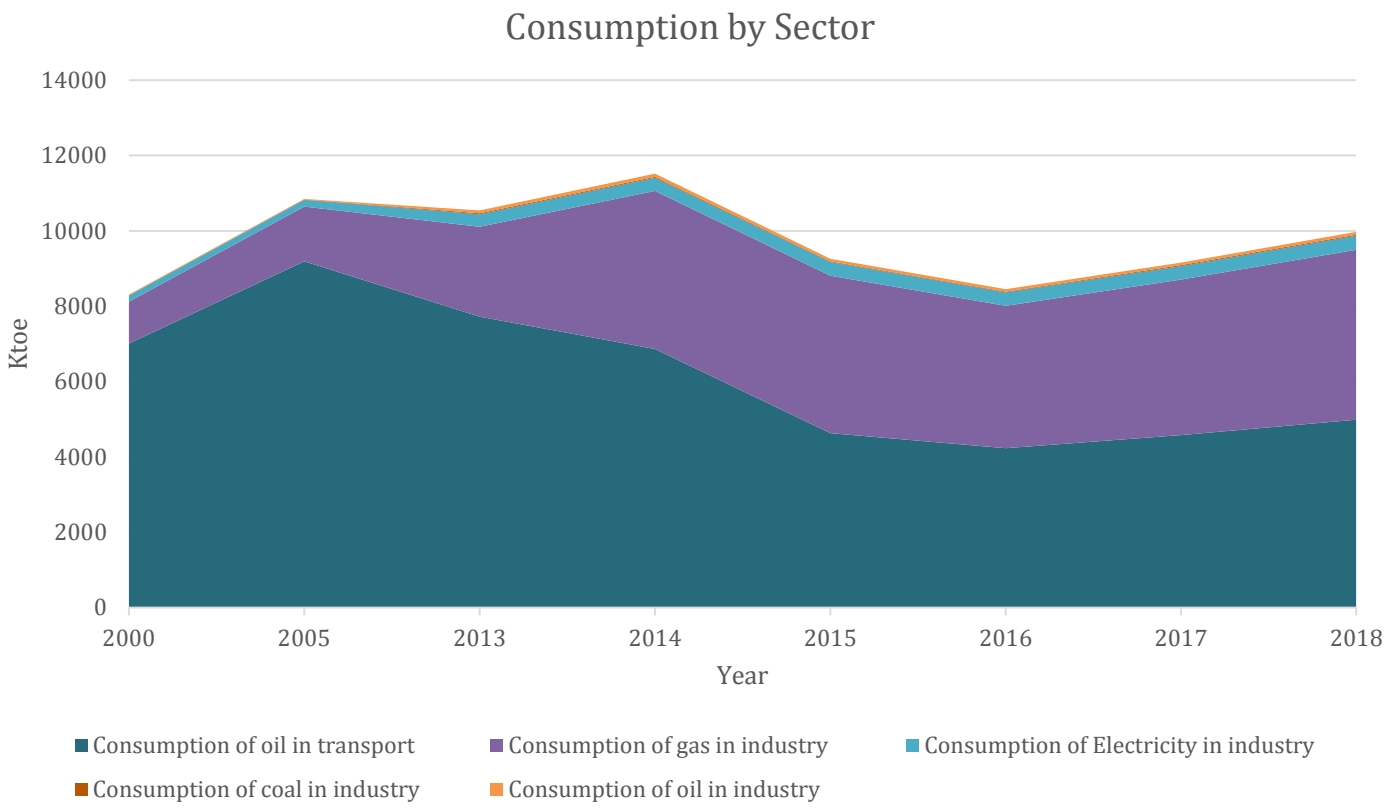
Primary Energy Demand & Supply

DATE	DETAILS	MW	HRS	DATE
2014	PEAK DEMAND FORECAST (CONNECTED + SUPPRESSED LOAD)	14,630	------	30/12/2014
	PEAK GENERATION TO DATE	4517.6	22:00	23/12/2012
	MAXIMUM AVAILABLE CAPACITY TO DATE	7492.6	06:00	14/04/2014
2015	PEAK DEMAND FORECAST (CONNECTED + SUPPRESSED LOAD)	14,630	23:00	19/12/2015
	PEAK GENERATION TO DATE	4883.9	21:15	23/11/2015
	MAXIMUM AVAILABLE CAPACITY TO DATE	7492.6	06:00	14/04/2014
2016	PEAK DEMAND FORECAST (CONNECTED + SUPPRESSED LOAD)	17,720	19:30	30/12/2016
	PEAK GENERATION TO DATE	5074.7	21:30	02/02/2016
	MAXIMUM AVAILABLE CAPACITY TO DATE	7492.6	06:00	14/04/2014
2017	PEAK DEMAND FORECAST (CONNECTED + SUPPRESSED LOAD)	17,720	20:00	30/12/2017
	PEAK GENERATION TO DATE	5222.3	21:00	18/12/2017
	MAXIMUM AVAILABLE CAPACITY TO DATE	7652.6	06:00	14/04/2014
2018	PEAK DEMAND FORECAST (CONNECTED + SUPPRESSED LOAD)	23,000	22:00	30/12/2018
	PEAK GENERATION TO DATE	5222.3	21:00	18/12/2017
	MAXIMUM AVAILABLE CAPACITY TO DATE	7652.6	06:00	14/04/2014

Primary Energy Supply by Source

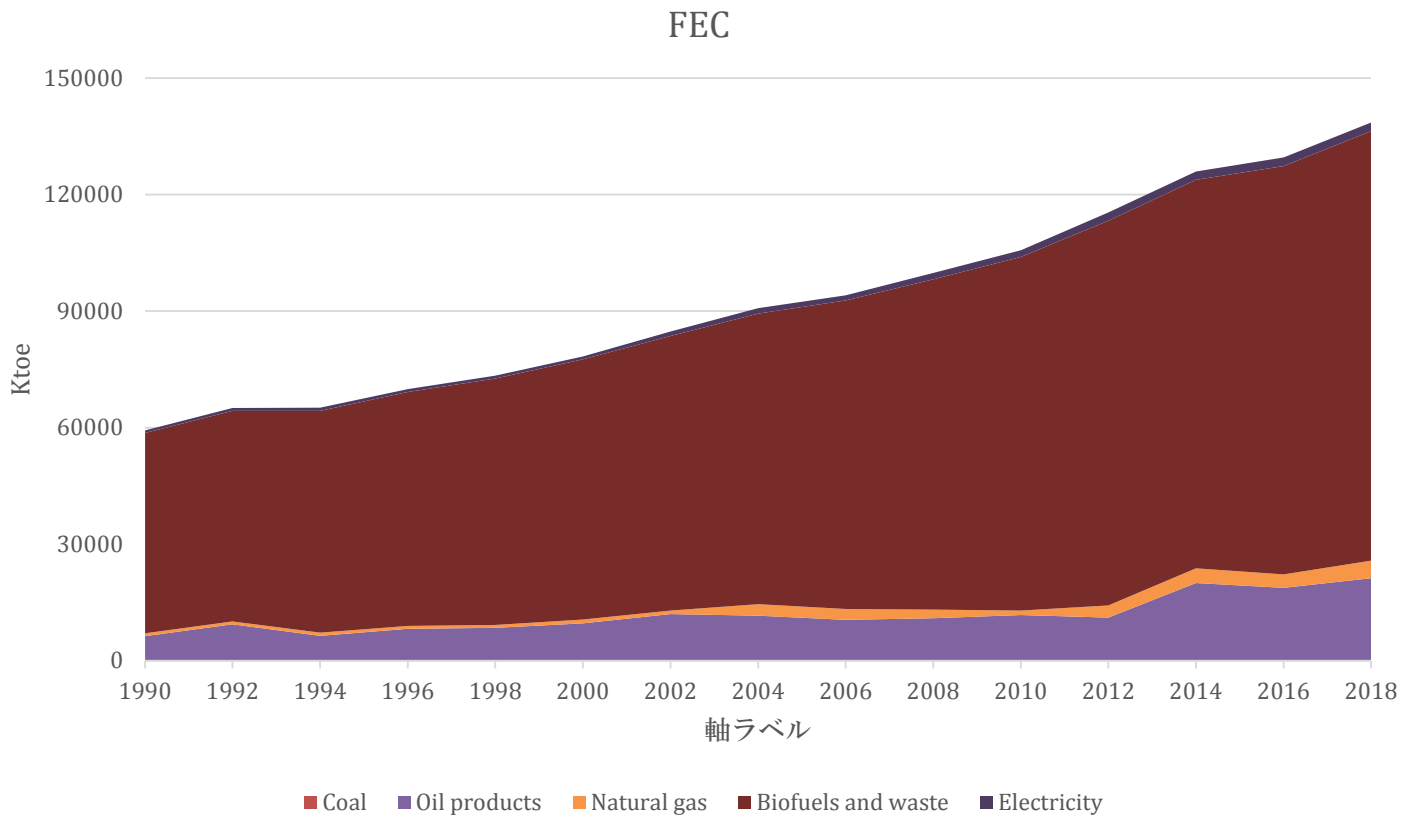


Final Energy Consumption by Sector

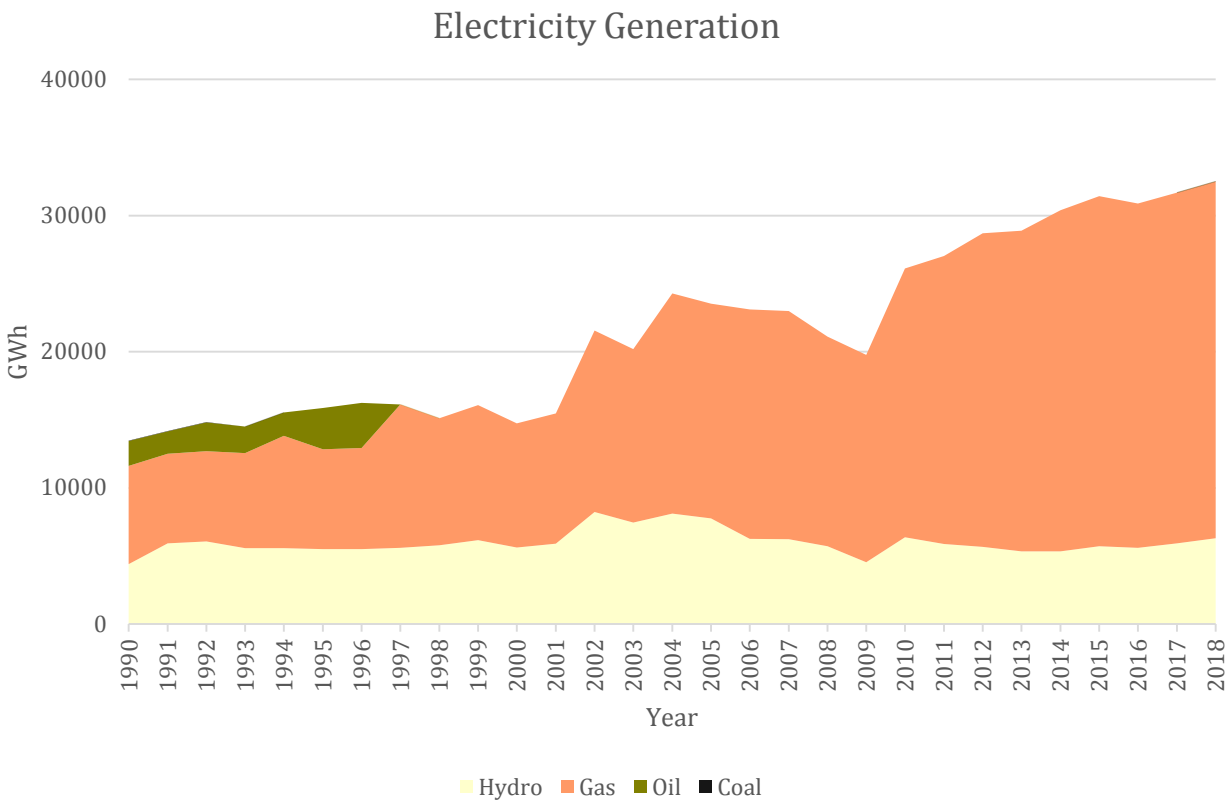


Note: does not include residential consumption.

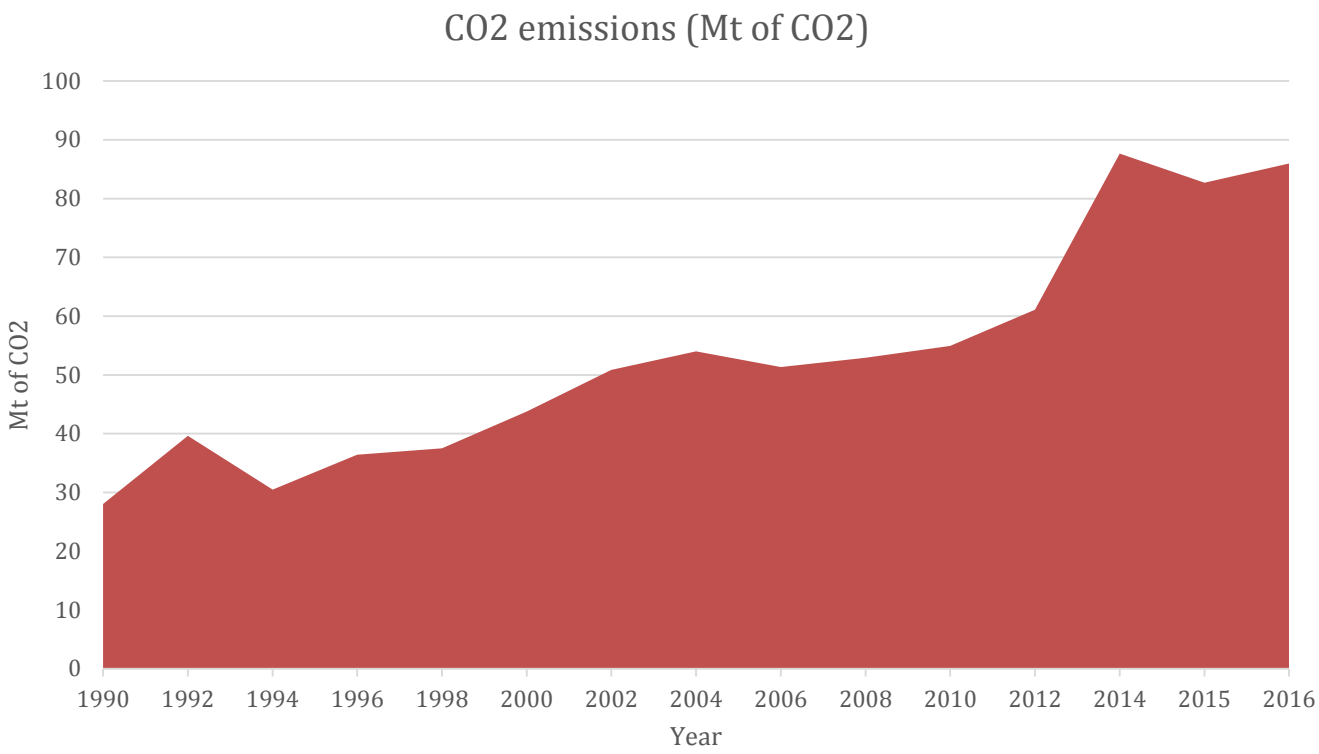
Final Energy Consumption by Energy Source



Electricity Generation by Energy Source 1990-2018



CO2 Emissions



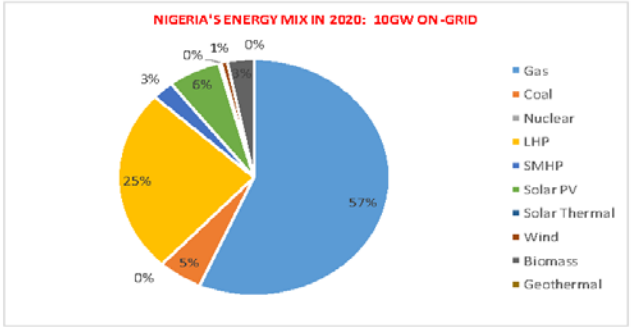
Energy Prices, 2019

Average Electricity prices	US$.09¢
Petrol/Gas prices	US$.47¢
Average diesel prices	US$.75¢

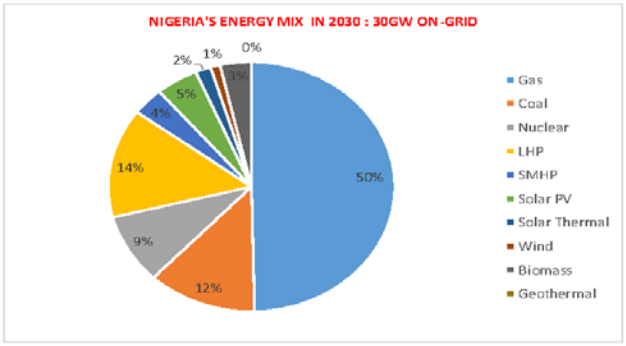
Outlook for Energy Demand 2020, 2030

NIGERIAN SUSTAINABLE ENERGY FOR ALL (SE4ALL) ACTION AGENDA

	2020
Gas	29,708
Coal	2,784
Nuclear	0
LHP	13,167
SMHP	1,374
Solar PV	3,283
Solar Thermal	151
Wind	397
Biomass	1,659
Geothermal	0



	2030
Gas	85,363
Coal	21,203
Nuclear	15552
LHP	24,365
SMHP	6,221
Solar PV	8,208
Solar Thermal	3,024
Wind	1,866
Biomass	6,083
Geothermal	0



LHP: LARGE HYDRO POWER; SMHP: SMALL MEDIUM HYDRO POWER

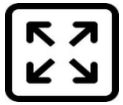
FF: FOSSIL FUEL; RE: RENEWABLE ENERGY

SHS: SOLAR HOME SYSTEMS

Investment Inflow in Energy Sector

Investment in Power Sector 2016- 2018(2nd Quarter)	US$(000) 342,876
Investment in Energy Sector 2017- 2018	US$6.6b

Bottlenecks in Formulating Energy Policies



Duplicity of policies and legislation that are conflicting and without any strong legislative backing or enforcement mechanism

Lack of access to tested, verifiable and reliable data to guide policy decisions and actions

Lack of proper coordination of stakeholders in implementation

Policies have not met conditions to enhance local content growth and development and ensure adequate competition

Incentives are not properly defined and implemented such that meets global best practice standards

Weak focus or emphasis on partnerships that build capacity, increase competitive edge or advantage in technology development, enhance knowledge exchange and learning, and improve innovation

Policy Interest & Reasons

- Over the years, Nigeria's energy development had focused majorly on oil and gas sector which has been responsible for producing over 90 percent of our revenues with little focus on other sources of energy or value adding sectors that is impacted by and related to our sustainable energy development
- Nigeria's strategic focus is to ensure a strong, diverse, and competitive energy mix that incorporates renewables, coal, and reduces dependence on fossil, while enhancing rapid growth in energy access.
- To this end, national rural electrification strategy and implementation plan has been developed and it is pivoted on promotion of renewable energy based off-grid electricity supply, for sustainable and broad-based economic growth.
- Sustainable Energy Development with focus on efficiency and RE is therefore my primary focus;
- Security through energy mix is also an interesting study area

Thank You

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