

NIGERIA COUNTRY REPORT

202515103J001-ENERGY POLICY

PREPARED BY

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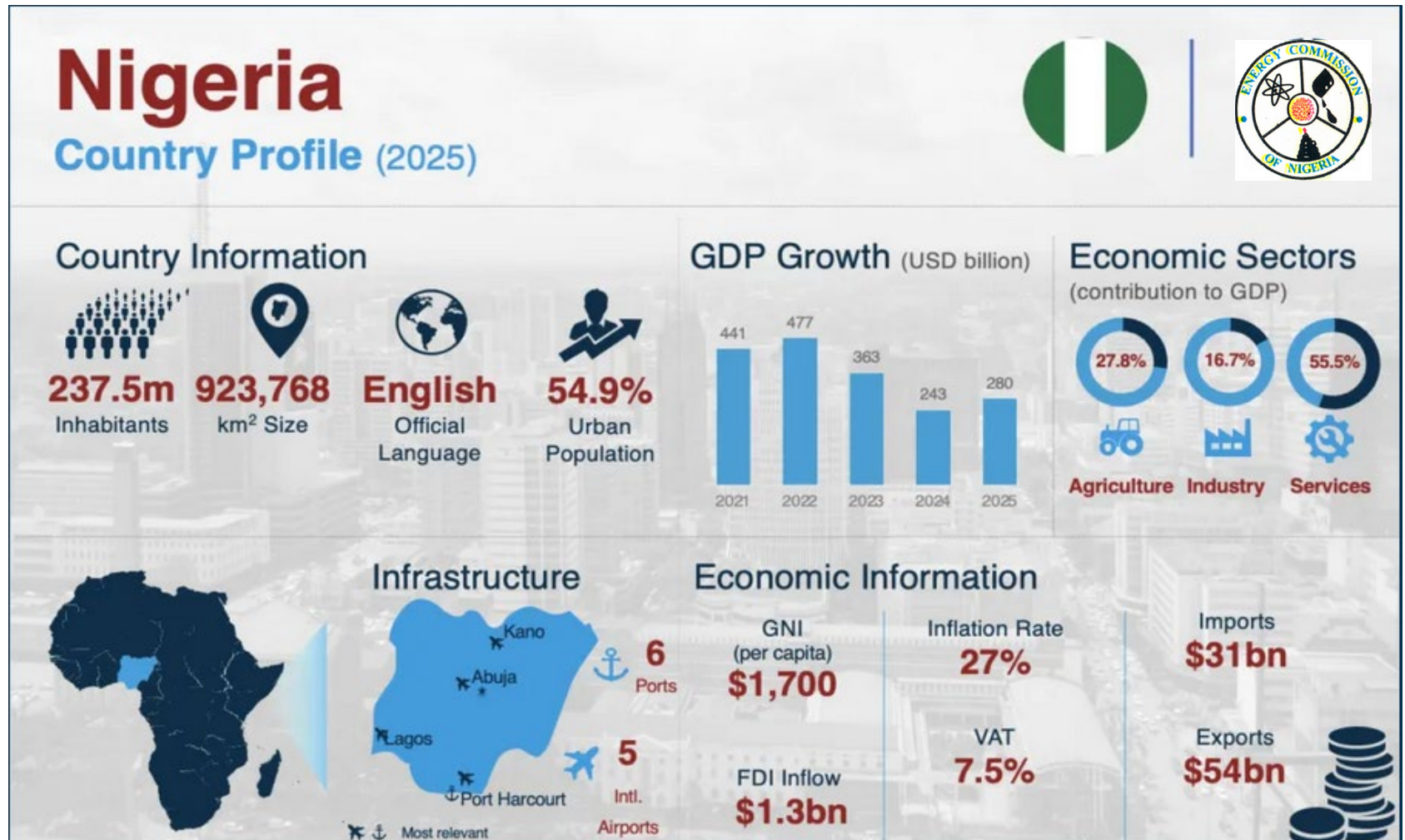
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Being a requirement for the Energy Policy Training Programme conducted by JICA

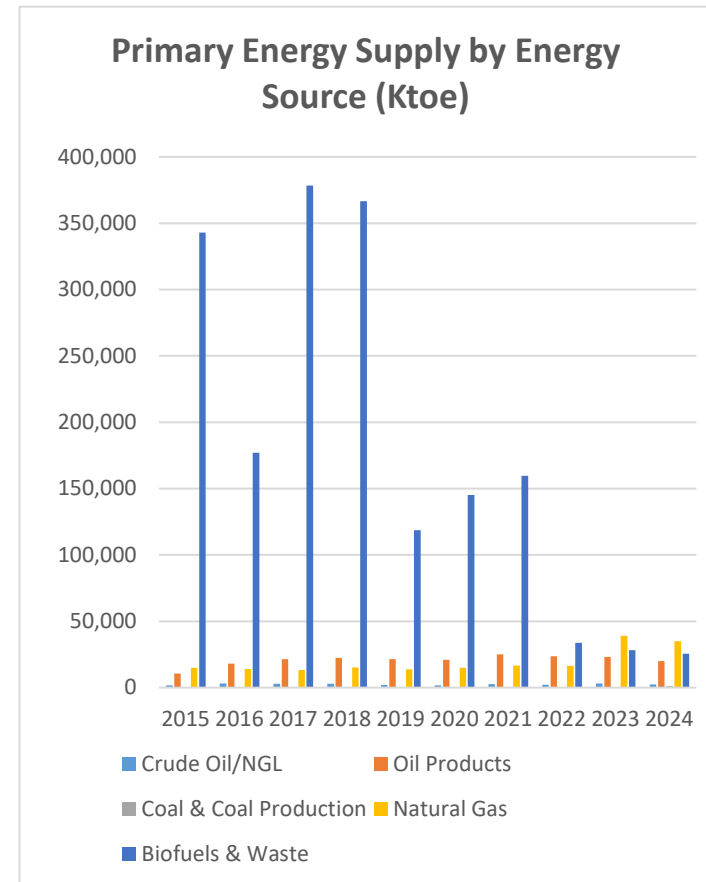
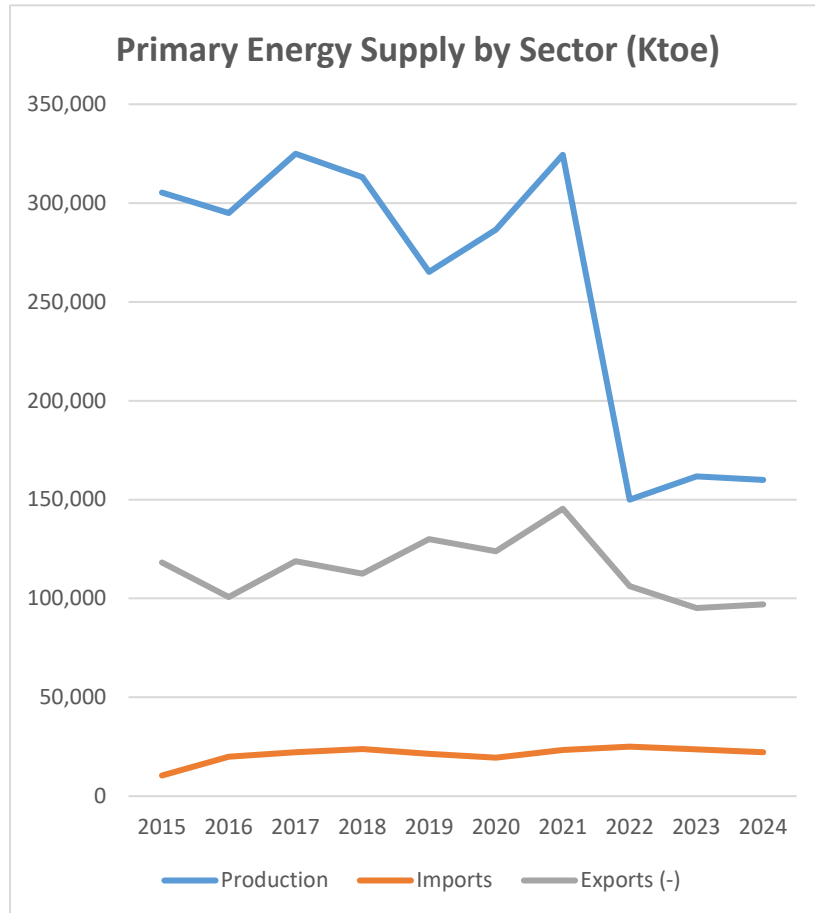
1. Country Profile



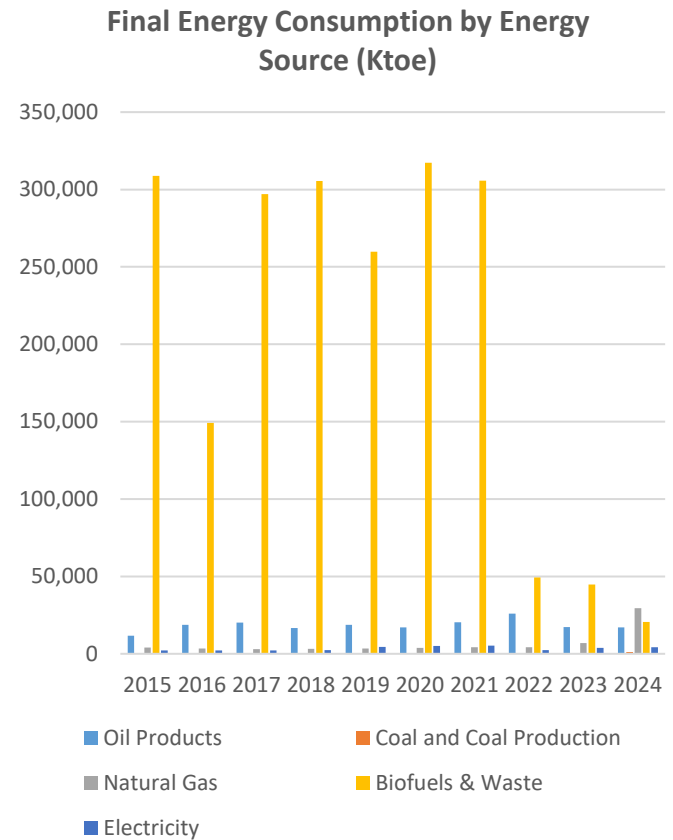
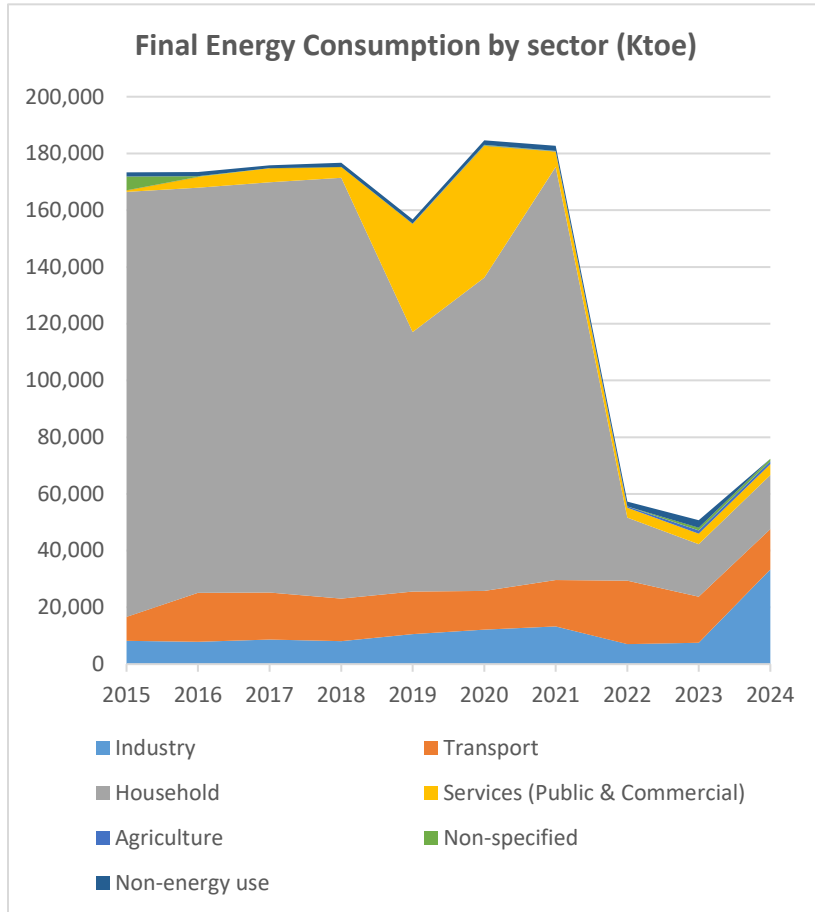
1. Energy Organizational Structure

Presidency	Fed Min Petroleum	NNPC
		NNRA
		NUPRC
		NMDPRA
	Fed Min Power	NERC
		NEMSA
		TCN
		REA
		NAPTIN
	Fed Min Water Resources	Dept of Dams & Reservoir
	Fed Min Environment	NCCC
	ECN	SERC
		NCERD
		NACHRED
		NCPRD
		NCEE
	NAEC	NCEFC

2. Past Energy Demand and Supply

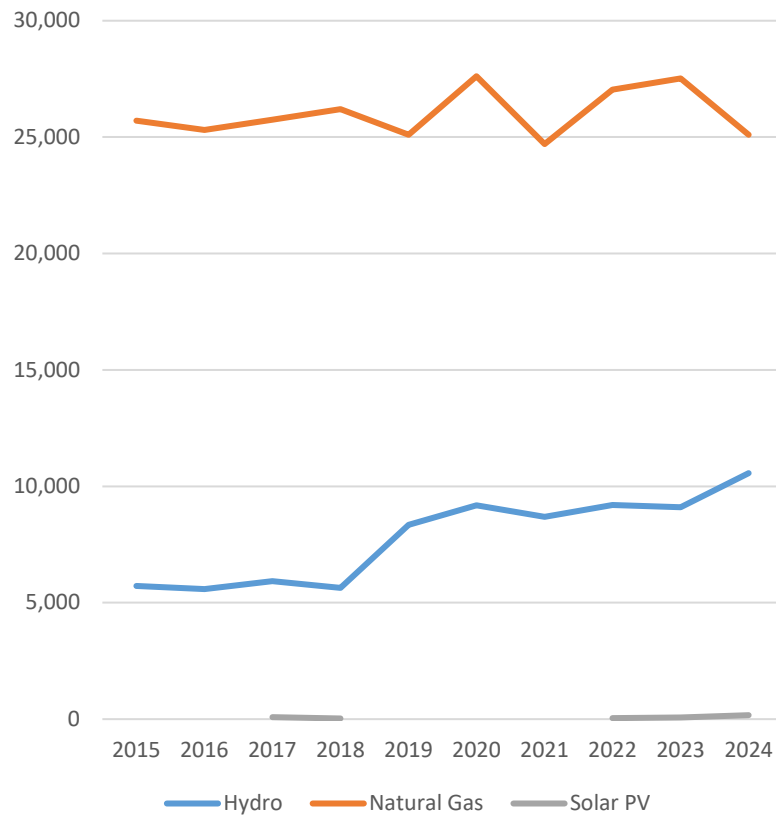


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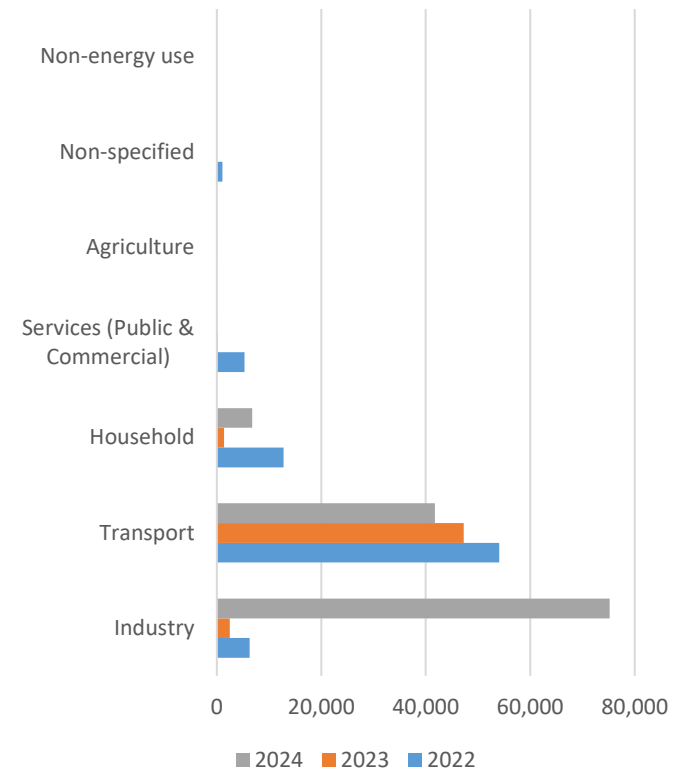


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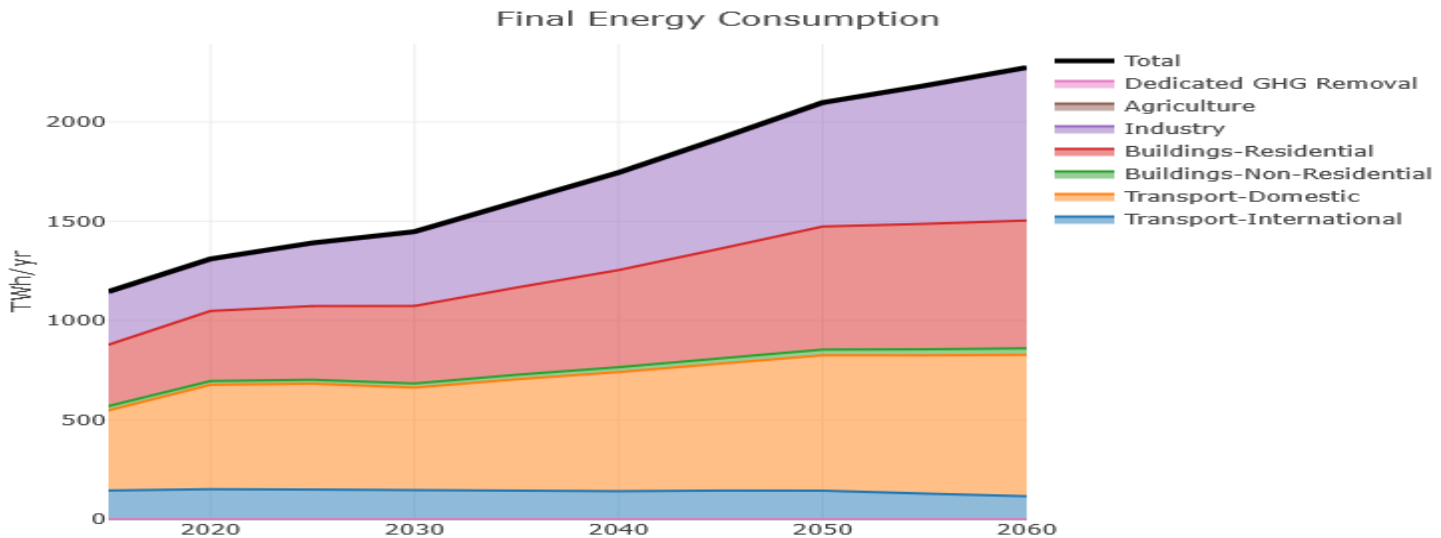
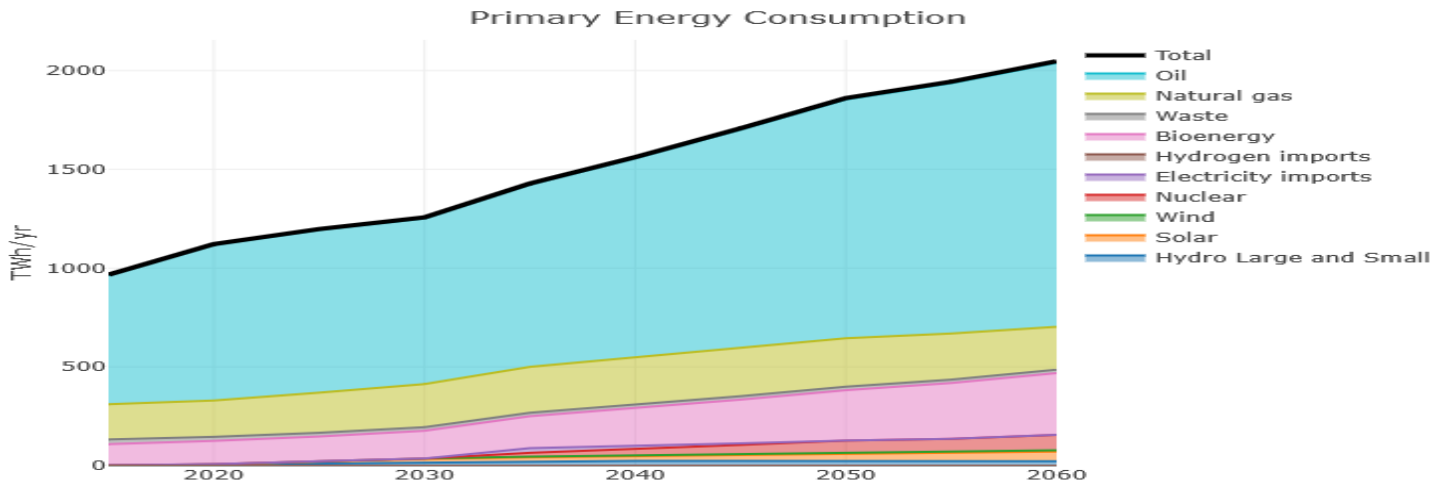
Electricity Generation by Energy Source (GWh)



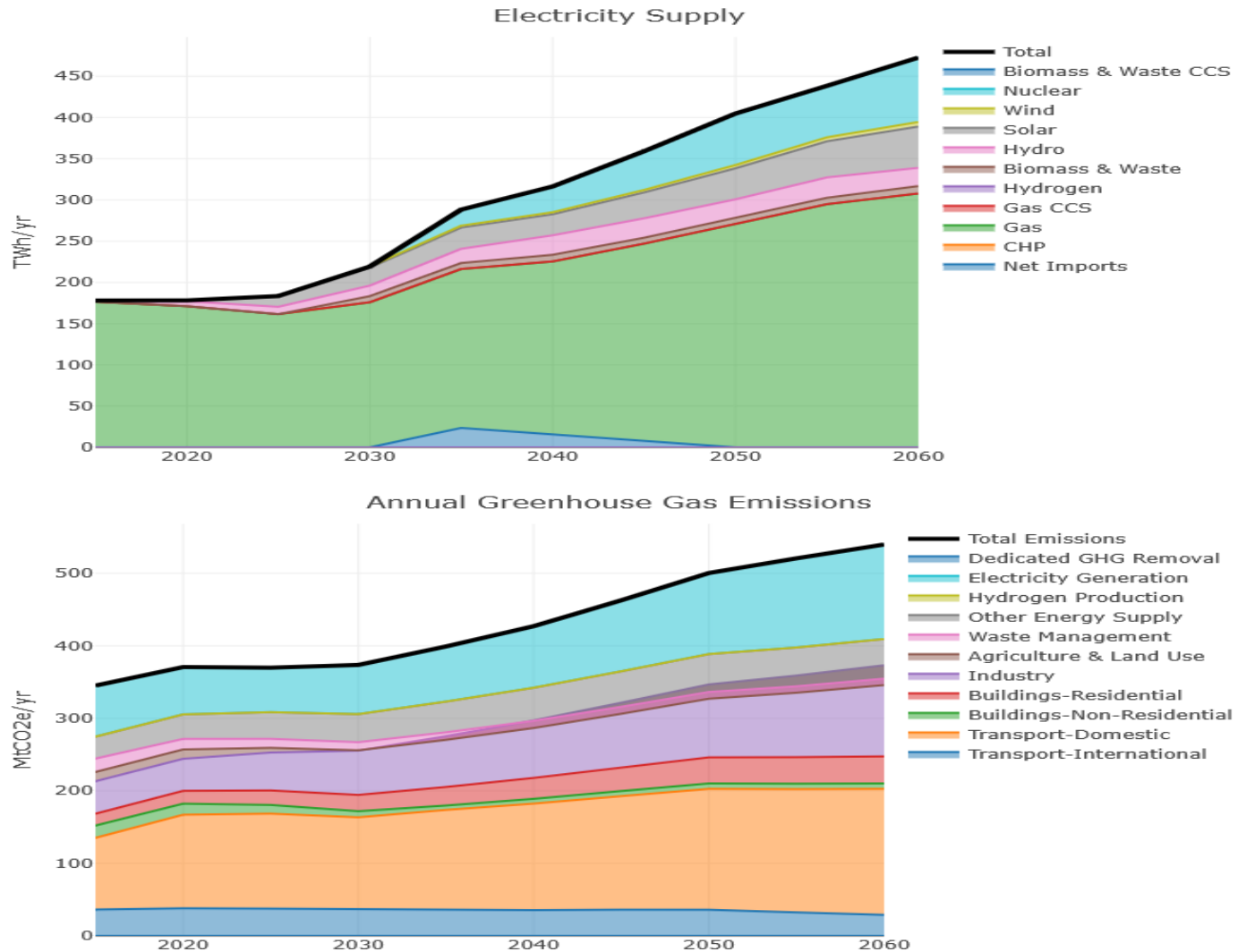
CO₂ Emission by Sector (Mt CO₂)



3. Outlook of Energy Demand and Supply



3. Outlook of Energy Demand and Supply



4. Current Energy Policy and Measures

Nigeria's current energy policy framework focuses on market liberalization, grid decentralization, and the transition to renewable energy sources. Key measures include the **Electricity Act 2023** (which enables state governments to generate and distribute electricity) and the **National Integrated Electricity Policy (NIEP)**, aimed at boosting investor confidence and power delivery.

4. Major Difficulties and Bottlenecks

Nigeria's energy policy formulation is primarily hindered by:

- ▶ Poor regulatory alignment between the gas and electricity sectors,
- ▶ Chronic data deficits,
- ▶ Infrastructure vulnerabilities, and
- ▶ Over-reliance on fossil fuels.

These systemic bottlenecks lead to frequent deadlocks, underfunded projects, and recurrent liquidity shortfalls within the power market.

5. Subjects to Learn from this Programme and Expectation of Superior

- **Grid Modernization & Technology:** Integrating renewable energy (solar, wind), **smart grid technologies**, energy storage solutions, and decentralized energy resources.
- **Policy Design & Evaluation:** How to craft, implement, and measure the success of **renewable portfolio standards**, feed-in tariffs, and energy efficiency mandates.
- **Energy Security & Geopolitics:** Analyzing supply chain vulnerabilities, geopolitical risks of oil and gas, and the transition to critical minerals.

Thank You

- Questions and Discussions

Appendix: Energy Prices

Energy costs in Nigeria have surged due to inflation and global supply chain pressures. Petrol (PMS) pump prices now average **₦1,330 to ₦1,360 per litre**, while grid electricity is structured in varying pricing tiers (bands) that range from **₦35 to ₦240 per kilowatt-hour (kWh)** depending on your location and power availability.

A comprehensive breakdown of specific energy categories illustrates the current landscape:

1. Electricity Tariffs (Grid Power)

The Nigerian Electricity Regulatory Commission (NERC) utilizes a "Band" system that determines your rate based on the minimum number of hours of electricity supplied daily.

- **Band A: ₦200 to ₦240 per kWh** (Guaranteed 20+ hours daily).
- **Band B: ₦160 to ₦190 per kWh** (16–20 hours daily).
- **Band C: ₦130 to ₦150 per kWh** (12–16 hours daily).
- **Bands D & E: ₦35 to ₦125 per kWh.**

2. Alternative Power Costs

Due to grid unreliability, many homes and businesses rely heavily on alternative power generation, which comes at a premium.

- **Petrol Generators:** Roughly **₦400 to ₦420 per kWh** equivalent.
- **Diesel Generators:** Roughly **₦600 to ₦650 per kWh** equivalent.
- **Solar/Battery Rentals:** Pay-per-use battery systems operate on models starting around **₦1,500 to ₦3,000 per day** for essential appliances.

3. Fuel and Transport Prices

- **Petrol (PMS):** An average of **₦1,330 to ₦1,360 per litre**.
- **Diesel (AGO):** Hovers significantly higher (about **₦2,000**), leading to increased transportation and logistical costs nationwide

Appendix: Energy Investments

Nigeria's energy sector represents a massive \$10+ billion annual opportunity divided between domestic off-grid solutions and overseas-backed, large-scale clean energy generation. Key investment areas include mini-grids, solar home systems, utility-scale infrastructure, and green hydrogen, driven by the country's push for universal electrification and a net-zero 2060 goal.

Top Energy Investment Areas

- **Distributed Renewable Energy (DRE):** The off-grid market offers a lucrative domestic avenue. Mini-grids and standalone solar systems represent a combined \$10 billion annual opportunity, targeting over 60 million un-electrified or underserved Nigerians.
- **Utility-Scale Generation & Transmission:** With initiatives like the Presidential Power Initiative and massive commitments from industrial leaders (e.g., Dangote Group's target for 20,000MW power investment), large-scale gas-to-power and clean energy upgrades are heavily prioritized.
- **Clean Tech & Local Manufacturing:** There is strong overseas demand for building local solar panel, smart meter, and battery manufacturing hubs within Nigeria. Foreign Direct Investment (FDI) from international partners is rapidly expanding in grid equipment and electric mobility.
- **Green Hydrogen:** Driven by recent multi-billion dollar framework agreements, green hydrogen production presents a futuristic but highly active overseas investment pipeline for international developers.

Investment Incentives & Facilitation

To stimulate both domestic and overseas capital, Nigeria offers robust institutional support:

- **Energy Transition Plan (ETP):** Outlines a pathway requiring ~\$410 billion in investment through 2060, heavily supported by private-sector funding.
- **Climate Finance Blending Facility:** Managed by InfraCredit, this facility provides local currency financing to mitigate forex risks and support off-grid developers.
- **Tax Relief:** Under the Companies Income Tax Act (CITA), companies replacing outdated equipment with energy-efficient or renewable alternatives can access an Investment Tax Credit ranging from 10% to 15%

Primary Energy Supply by Sector (Ktoe)

S/ N	Sector	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
1.	Production	305,243	294,922	324,957	313,112	265,098	286,591	324,448	149,976	161,709	159,882
2.	Imports	10,431	19,898	22,148	23,901	21,448	19,498	23,398	25,035	23,625	22,155
3.	Exports (-)	118,248	100,731	118,836	112,609	130,067	123,893	145,376	106,225	95,154	97,014

Primary Energy Supply by Energy Source (Ktoe)

S/ N	Energy Source	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
1.	Crude Oil/NGL	1,697	3,022	2,930	2,839	1,887	1,716	2,716	2,270	3,169	2,396
2.	Oil Products	10,531	18,152	21,354	22,389	21,469	21,000	25,200	23,518	23,113	20,099
3.	Coal & Coal Production					218	24	27		195	1,173
4.	Natural Gas	14,906	13,911	13,300	15,205	13,658	15,024	16,526	16,458	39,041	34,930
5.	Biofuels & Waste	342945	176,968	378,326	366,577	118,592	145,220	159,741	33,878	28,267	25,676
6.	Electricity	492	480	510	485	521	573	549	596	594	749

Final Energy Consumption by sector (Ktoe)

S/ N	Sector	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
1.	Industry	8,203	7,915	8,716	8,125	10,630	12,187	13,329	7,044	7,587	33,373
2.	Transport	8,428	17,249	16,507	14,967	14,962	13,602	16,322	22,427	16,139	14,238
3.	Household	149,841	142,815	144,676	148,279	91,446	110,499	145,572	22,146	18,556	19,070

4.	Services (Public & Commercial)	564	3,787	4,953	3,907	38,152	46,464	5,503	3,547	3,699	3,742
5.	Agriculture	4	4		4	65	72	74	451	1,156	1,113
6.	Non-specified	4,850	251				208	134		952	895
7.	Non-energy use	1,408	1,468	974	1,450	1545	1602	1,809	1698	2,594	

Final Energy Consumption by Energy Source (Ktoe)

S/N	Energy Source	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
1.	Oil Products	11,593	18,790	20,214	16,577	18,711	17,010	20,413	25,850	17,254	16,997
2.	Coal and Coal Production					216	24	27		195	1,173
3.	Natural Gas	3,941	3,405	3,087	3,303	3,470	3,817	4,199	4,340	6,962	29,388
4.	Biofuels & Waste	308,785	149,095	297,034	305,494	259,874	317,323	305,698	49,323	44,714	20,539
5.	Electricity	2,157	2,176	2,227	2,282	4,466	5,121	5,256	2,462	3,914	4,334

Electricity Generation by Energy Source (GWh)

S/N	Energy Source	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
1.	Hydro	5,718	5,586	5,933	5,635	8,344	9,179	8,687	9,204	9,107	10,566

2.	Natural Gas	25,708	25,311	25,748	26,205	25,104	27,615	24,702	27,046	27,515	25,108
3.	Solar PV			87	28				49	71	170

CO₂ Emission by Sector (Mt CO₂)

S/N	Sector	2022	2023	2024
1.	Industry	6,310	2,460	75,196
2.	Transport	54,080	47,270	41,755
3.	Household	12,775	1,373	6,785
4.	Services (Public & Commercial)	5,283	140	53
5.	Agriculture		0.7	
6.	Non-specified	1,053		
7.	Non-energy use			