NIGERIA ENERGY DOWNSTREAM INDUSTRY REPORT 2023

MEMAN

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CONTENT

EXECUTIVE SUMMARY

The Nigerian oil and gas sector in 2023 faced a complex mix of challenges and opportunities. While the sector continued to be a vital part of the economy, contributing significantly to government revenue and export earnings, it also grappled with various operational and regulatory issues.

Key Highlights

Production and Output

Oil Production: Nigeria's oil production remained below capacity due to operational disruptions, including oil theft, pipeline vandalism, and ageing infrastructure. Despite efforts to stabilize production, output fluctuated around 1.4 to 1.6 million barrels per day.

Gas Production: Natural gas production saw an uptick as part of broader efforts to leverage Nigeria's substantial gas reserves. The government promoted gas utilization domestically and for export through initiatives like the Nigeria Gas Flare Commercialization Program.

Regulatory Environment

Petroleum Industry Act (PIA): The implementation of the Petroleum Industry Act, passed in 2021, continued in 2023. The Act aims to overhaul the regulatory framework, improve transparency, and attract investment. However, full implementation faced delays and required more robust execution.

Regulatory Challenges: Regulatory uncertainties and bureaucratic hurdles remained a concern for investors. Efforts to streamline processes and ensure clarity in the regulatory environment were ongoing.

Revenue and Fiscal Health

Revenue Generation: Oil and gas revenues remained a critical source of government income. However, fluctuating global oil prices and production challenges impacted revenue stability. The government pursued fiscal reforms to enhance revenue collection and reduce leakages.

Debt Servicing: A significant portion of oil revenues was allocated to debt servicing, highlighting the need for fiscal prudence and diversification of revenue sources.

Deregulation of PMS: In May 2023, the government removed the PMS subsidy to cut spending and reallocate resources to other critical sectors. This led to an increase in the price of PMS from ₦187 to ₦630. However, the IMF reported that PMS is still sold below the market price, effectively maintaining a partial subsidy.

Infrastructure and Investment

Pipeline Security: Enhancing the security of oil pipelines was a priority to curb oil theft and vandalism. The government and private sector invested in surveillance technologies and community engagement programs to mitigate these issues.

Investment Climate: The investment climate remained mixed. While the PIA and other reforms aimed to attract investment, concerns over security, regulatory clarity, and operational risks continued to deter some potential investors.

Energy Transition and Sustainability

Renewable Energy: There was a gradual but notable shift towards renewable energy sources. The government promoted investments in solar, wind, and hydroelectric power to diversify the energy mix and reduce dependence on fossil fuels.

Gas-to-Power Initiatives: Efforts to utilize natural gas for domestic power generation gained momentum, supporting Nigeria's energy transition goals and enhancing energy security.

Monetary Dynamics

Foreign Exchange Management: In 2023, Nigeria's foreign exchange market experienced significant changes aimed at stabilizing the economy and attracting investment. A major shift was the unification of all exchange rate windows, which transitioned the market to a more transparent and market-driven system. The Central Bank of Nigeria (CBN) consolidated transactions through the Investors and Exporters (I&E) window, where exchange rates are determined by market forces, moving away from the previously fragmented system with multiple rates.

However, the move also led to an initial depreciation of the Naira, causing a rise in the cost of imported goods. This was a part of broader economic reforms under President Bola Tinubu's administration, which also included ending fuel subsidies and other measures to address long-term economic imbalances

Market Dynamics

Global Oil Prices: Global oil price fluctuations significantly impacted Nigeria's oil earnings. The country's reliance on oil exports exposed it to volatility in the international market.

Export Markets: Nigeria continued to explore new export markets for its oil and gas, aiming to reduce reliance on traditional buyers and improve trade balance.

The Nigerian oil and gas sector in 2023 navigated through a challenging landscape marked by production issues, regulatory changes, and global market dynamics. While the sector remains a cornerstone of the economy, achieving sustainable growth and stability requires continuous structured and focused policy reforms, enhanced security measures, and strategic investments in infrastructure and renewable energy.

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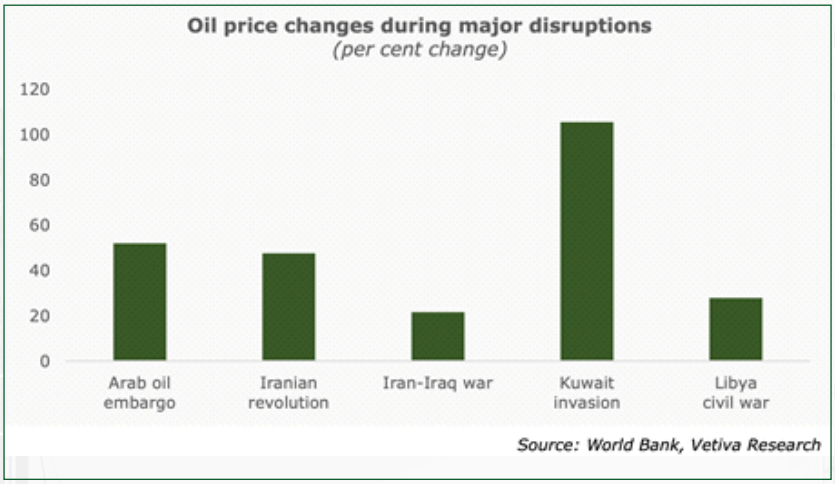
The Nigerian Market

1.GLOBAL ECONOMIC DEVELOPMENTS



According to the Vetiva Capital Management Limited Research In 2023, the global economic landscape was marked by persistent challenges and uncertainties. Recession concerns lingered in advanced economies, such as the UK and Eurozone, as tight financial conditions continued to weigh on consumer wallets. The elevated inflation environment and the resultant effects of monetary policy tightening by central banks impacted growth trends across countries. However, growth in the US remained resilient, buoyed by stable consumer spending, which reflected accumulated savings and a tight labor market. In March 2023, the failure of three small-to-mid-size U.S. banks triggered a sharp decline in global bank stock prices and prompted swift regulatory responses to prevent potential global contagion. Since the Russian invasion of Ukraine, geopolitics has been a determinant of global macro-outcomes. Following the invasion of Ukraine, the resultant sanctions on Russia and disruption of trade in Ukraine led to a spike in food and energy prices. The Black Sea deal was initiated to tackle acute global food shortages. The deal allowed ships to sail through the Black Sea to export millions of tonnes of grain to the rest of the world. As a result, global supply chain pressures eased afterwards. This seeming progress was interrupted by Russia's withdrawal from the deal in July 2023. Thus, supply chain pressures rose slightly. However, food prices have remained on a downtrend following a short-lived knee-jerk reaction.

According to the IMF Global economy growth is estimated to slow to 3.0% in 2023 from 3.5% in the prior year. Whilst Trade volume growth weakened to 1.7% in 2023 due to factors such as geopolitical tensions, food insecurity, potential financial instability from monetary policy tightening, and increasing levels of debt. Despite that Global inflation rate is estimated to soften to 6.9% in 2023 from 8.7% in 2022. Price growth decline is projected to moderate to 5.8% in 2024. Nonetheless, the WTO projected a 3.2% expansion in global trade volume in 2024. However, this projection is at risk of being negatively impacted by geopolitical tensions brewing in the Middle East and Asia. This includes the blockade on the Red Sea by Iran-backed Houthi rebels and a potential escalation of China/Taiwan conflict.

2.NIGERIA'S MACRO-ECONOMIC OVERVIEW

Indicator	2023 - (% change; y/y)				
	Q1	Q2	Q3	Q4	FY 2023
Real GDP growth	2.3%	2.51%	2.54%	3.46	2.74
OIL	-4.21	-13.4	-0.85	12.11	-2.22
NON- OIL	2.77	3.58	2.75	3.07	3.04

Growth in the Nigerian economy continues to normalize as key reforms are executed. In Q3 2023, Nigeria's real GDP growth slowed to 2.54% year-over-year (y/y), 3 basis points lower than the previous quarter (Q2 2023: 2.51% y/y). The industrial sector slumped by 1.9%, extending its 4-year recessionary trend. A notable contraction in the transport sector was observed following the President's decision to end gasoline subsidies. This reform slightly dented growth in the trade sector, but the telecoms and finance sectors remained resilient, expanding at faster rates. Growth in the services sector halved amid a contraction in the transport sector (Q3 2023: -35.85% y/y) and slower growth in trade (Q3 2023: 1.53% y/y, Q3 2022: 5.08% y/y). This can be attributed to the devaluation of the Naira and the removal of fuel subsidies, which contributed to high transport prices, elevated business costs, and compressed consumer demand.

As a result, trade volumes have been suboptimal. The telecoms (ICT) and finance sectors remained the highlights of the services sector. ICT expanded by 6.69% y/y (Q3 2022: 10.53% y/y) amid increased mobile money penetration, the absence of restrictions on SIM registrations, and sustained digital adoption across sectors. Since the cash crunch of Q1 2023, the financial services sector has grown by at least 24% y/y. This underscores the increased preference for digital payment platforms over cash transactions following the hardships faced during the cash crunch.

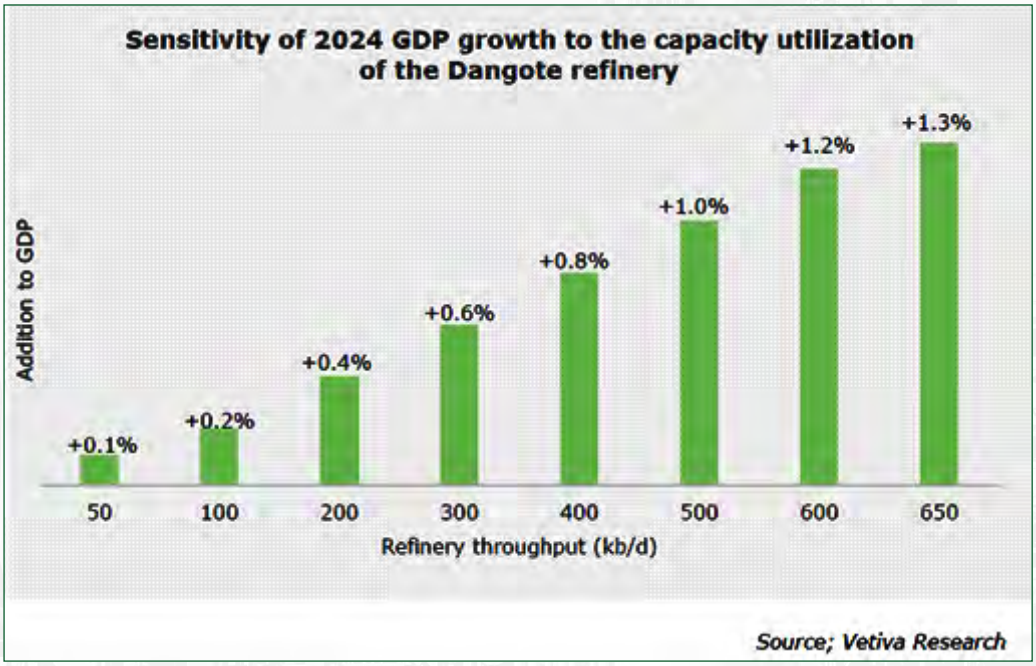
GDP Outlook: Oil production and refining to determine 2024 GDP print

In 2024, we expect growth in the agricultural sector to slow, following the transfer of quasi-fiscal interventions from the Central Bank to relevant agencies. As a result, we mark down our growth for crop production; however, a rebound in livestock could support growth for the wider agricultural sector.

Given the macro headwinds and divestments in the Consumer Goods space, we could see weaker growth numbers in manufacturing. While the cash shortage and election season kept real estate activities in a limbo in 2023, we expect budget execution and clarity on policy direction to buoy public construction in 2024. Beyond local demand, external demand could also keep the cement sector in the arena of growth.

On the services leg, we expect modest performances in trade, manufacturing, and transport, due to the sustained impact of elevated PMS prices and Naira depreciation. Finance and ICT may continually outperform. However, headwinds could emerge from the synchronization of Bank Verification Numbers (BVN) with National Identification Numbers (NIN), which could slow growth in both sectors.

Tying these altogether, we see room for a 3.41% uptake in the non-oil sector in 2024 (2023E: 3.09%). Given the idiosyncratic risks associated with the oil sector, we adopt a scenario approach in arriving at our FY'24 growth estimates. Adopting a baseline oil production scenario of 1.45 mb/d, this implies a +0.6% y/y expansion in the oil sector and translates into a 3.2% y/y expansion in overall real GDP growth.
Nigeria has a couple of refinery projects in the works from the Dangote refinery to the existing refineries (Port-Harcourt, Warri and Kaduna Refineries). While our growth estimate excludes any ramp-up in refining capacity, our models show that an improvement in national refining capacity by 50,000 b/d could add +0.1% to GDP.



Fiscal outlook: Non-oil sources reign supreme

Vetiva Capital Reports that Oil production fell short of target in 2023, despite high oil prices and a favourable OPEC production quota (initially 1.7 mb/d). The devaluation of the Naira and removal of subsidies were key revenue drivers for the year, as the former shored up the naira equivalent of oil USD receipts while the latter reduced the deductions made to gross oil revenues. Notwithstanding, the shortfall in oil production weighed on the contribution of oil to federation revenues. Gross oil and gas revenues (9M'23: ₦5.6 trillion) fell short of target by 21%, while non-oil revenue exceeded budget estimates by 30% (9M'23: ₦6.9 trillion).

Inflation outlook: Fuel prices could keep inflation elevated

In 2023, the removal of subsidies led to a surge in headline inflation. Empirical evidence shows us that a shock in the PMS price has a positive and significant impact on headline inflation for up to 15 months. As a result, we retain our bearish outlook on inflation in H1'24. Our empirical analysis shows us that this passthrough could fizzle out by mid-2024.

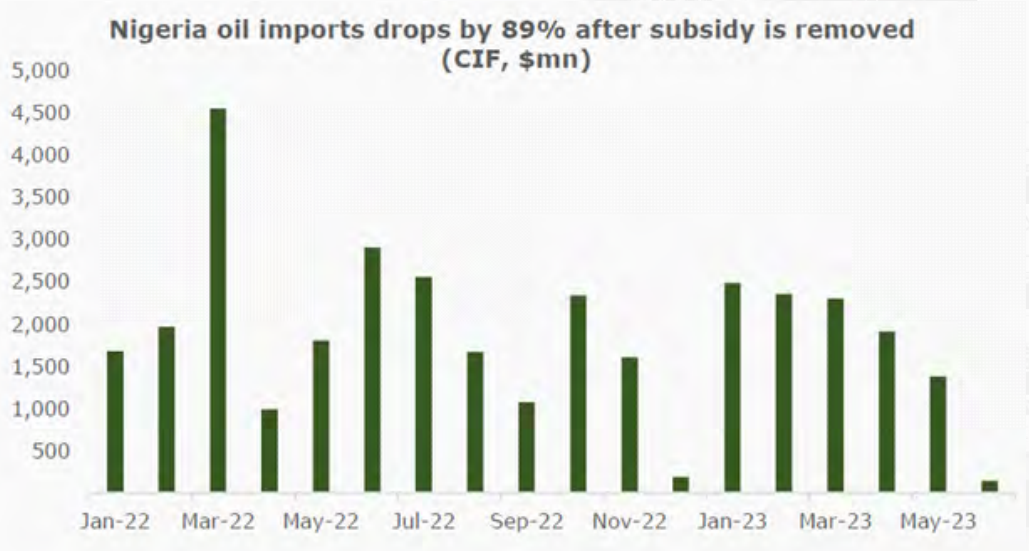
On the global scene, supply chain pressures and COVID-19 cases were key drivers of commodity prices and inflation. The anticipated normalization in supply chains supports the view that commodity prices could be lower in 2024. On the flip side, geopolitics in the Middle East has raised concerns of further spikes in oil prices, should war escalate in that territory.

On the back of these twin possibilities, our baseline forecast rests on the argument that whether oil prices rise or fall, the Naira could remain weak in 2024 due to hazy outlook on oil production, exports, and remittances of NNPC into the federation account. As a result, this could induce upward adjustments in PMS prices. While this may keep inflation elevated, we could see some moderations in Q3'24 due to high base effects. So far in 2023, PMS prices averaged ₦459/litre. Our baseline scenario suggests a PMS price average of ₦700/litre in 2024 (Oct'23: ₦626/litre). Consequently, we expect inflation to rise from an expected average of 24.5% in 2023 to 28.1% in 2024.

External outlook: Subsidy removal boosts current account balance

Large drop in fuel imports expands trade surplus following the removal of fuel subsidies on the 29th of May 2023, Nigeria's oil imports nosedived by 89% m/m to $151 million in June 2023, its lowest in 30 months. As a result of this decline, overall imports moderated by 62% m/m. This contributed to a substantial rise in trade surplus and consequently, boosted Nigeria's current account position from a deficit position in Q1'23 (-$0.4 billion) to a surplus position in Q2'23 (+$2.9 billion). Thus, Nigeria's current account balance-to-GDP rose to 2.78%, its highest outturn since Q3'2018.

Provisional data from the National Bureau of Statistics (NBS) shows trade surplus remained as high as +$2.7 billion in Q3'23, on the back of a huge decline (-$4.4 billion y/y) in imports and a mild drop in exports (-$0.2 billion y/y). While exports are held back by weak oil production, imports were held back by a drop in petroleum imports following the removal of fuel subsidies.



Source: CBN, Vetiva Research

In 2022, current account recorded an overall surplus/positive balance for the first time in 3 years on account of a narrower trade deficit and positive secondary income balance. As a result, current account improved from -0.8% of GDP in 2021 to 0.2% of GDP. On account of the huge drop in oil imports, we expect this metric to improve to 1.9% of GDP in 2023 and 2.0% of GDP in 2024.

Oil production picks up, but quota remains a constraint

In 2023, oil production averaged 1.44 mb/d, 5% higher than the 1.37 mb/d recorded in 2022. Oil production has improved since local intelligence has been incorporated in the pipeline surveillance framework. Due to an industrial action by Exxon Mobil workers in April and the glut of unsold oil in June, oil production fell to 1.2 mb/d. Excluding those months, oil output has averaged 1.48 mb/d thus far. Risks to oil production in 2024 include operational distortions and OPEC production cuts, even as Nigeria and Angola resist attempts to cut oil output further.

FX outlook: Encumbrances impede intervention efforts

Despite Nigeria's wider trade surplus, the Naira has weakened considerably in both the official and parallel markets. While we had anticipated a positive feedback loop from subsidy removal to exchange rates, the published financial statements of the Central Bank made it clear that Nigeria's net reserve position is substantially weaker than previously anticipated due to huge encumbrances (FX forwards, OTC futures, and Swaps). As of 2016, encumbrances amounted to $8.6 billion, barely 32% of gross reserves. More recently, these encumbrances have risen to $31.6 billion in 2022, making up 98% of gross reserves. When we computed Nigeria's net external reserve, we arrived at a conclusion that Nigeria's net reserves was at most $22 billion due to the unknown value of commitments due in the short term. JP Morgan estimates that sizeable amounts of these commitments could be short-term and thus, net reserves could be as low as $3.7 billion.

Source: Vetiva Capital Management Limited and Coronation Merchant Bank

2.1 FX, Inflation, Interest Rates and Public Debt

Period	USD/NGN	EUR/NGN	GBP/NGN
Q1-2023	458.253	491.932	556.737
Q2-2023	507.735	553.773	636.698
Q3-2023	772.499	804.742	977.721
Q4-2023	797.828	859.570	991.309
E-2024	1,650	1,815	2,110
Q2-2024	1600	1,730	2,015

SOURCE: Exchangerates.org.uk and The Central Bank of Nigeria (CBN)

Foreign Exchange (FX)

The table shows an increase in the exchange rate for three major currencies over time, from Q1-2023 to Q2-2024.

Regarding the impact of increased exchange rates on the Nigerian economy, higher interest rates typically lead to a stronger currency value due to higher returns on investments in that currency. However, it can also make borrowing more expensive for businesses and consumers, potentially slowing down economic activity. For instance, ActionAid Nigeria expressed concern that the increase in the monetary policy rate by the Central Bank of Nigeria (CBN) would lead to higher borrowing, which may lead to higher non-performing loans.

The image presents projected exchange rates for the Nigerian Naira (NGN) against major currencies—the US Dollar (USD), Euro (EUR), and British Pound (GBP)—from Q2 2024 to E-2025 (end of 2025). The data indicates a consistent depreciation of the Naira against these currencies over the given period. Here are the key points from the image:

Exchange rate trends:
USD/NGN: The Naira is expected to weaken from 1,600 NGN per USD in Q2 2024 to 1,700 NGN per USD by the end of 2025.
EUR/NGN: The exchange rate increases from 1,730 NGN per EUR in Q2 2024 to 1,940 NGN per EUR by the end of 2025.
GBP/NGN: The Naira's value drops from 2,015 NGN per GBP in Q2 2024 to 2,245 NGN per GBP by the end of 2025.

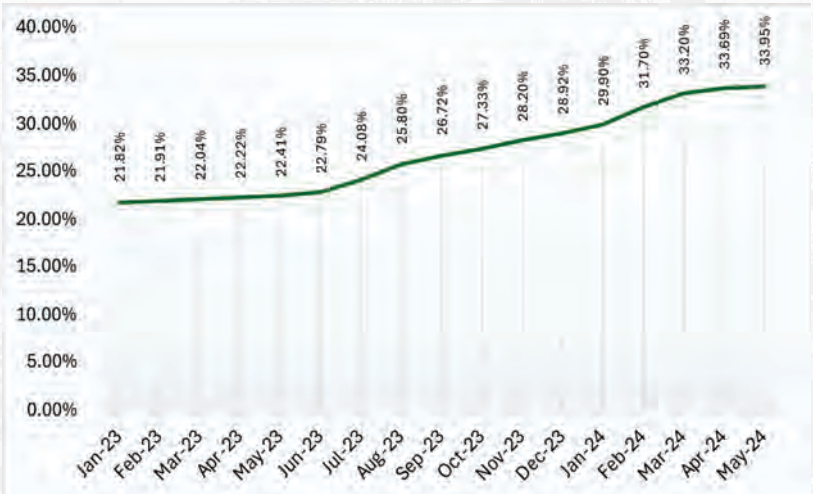
Factors contributing to naira depreciation
Several factors contribute to the depreciation of the Naira i.e. Increases in the costs of production, such as higher prices for raw materials, labour, and transportation, can lead to higher overall prices. In Nigeria, frequent increases in the cost of imported goods, particularly fuel, significantly contribute to inflation. Given Nigeria's dependence on imports for many goods, her inability to increase her manufacturing and production capacity, any devaluation of the Naira or increase in global commodity prices exacerbates this issue.
Demand-Pull Factors: When demand for goods and services exceeds supply, prices tend to rise. In this case petroleum products. In Nigeria, periods of economic growth or increased government spending can lead to higher demand, putting upward pressure on prices.

Exchange rate pass-through: As the Naira depreciates, the cost of imported goods rises. This is a significant factor in Nigeria, where a large portion of consumer goods and raw materials are imported. The depreciation of the Naira, as indicated by the projected exchange rates, leads to higher import costs, contributing to inflation. The Central Bank of Nigeria (CBN) uses foreign exchange reserves to intervene in the currency market to stabilize the Naira. This can involve buying or selling foreign currencies to influence the exchange rate, or intervention within local markets such as the Petroleum Industry in order to aid local consumers and make products cheaper and affordable for them. A shift from being a net importer to net exporter of distillates augurs well for Nigeria and her balance of payment.

Inflation

Global trends are exerting significant inflationary pressure on Nigeria's domestic economy. Major trading partners, including China, the United States, India, and the European Union, are experiencing record-high inflation rates, which have a cascading effect on Nigeria. Factors such as supply chain disruptions, rising costs, exchange rate depreciation, and insecurity are driving inflation within the country. In June 2022, Nigeria's inflation rate reached 18.6%, the highest in over five years, marking the fifth consecutive monthly increase. The National Bureau of Statistics (NBS) reported in its Consumer Price Index (CPI) that the inflation rate climbed from 17.71% in May 2022 to 18.6% in June 2022, underscoring the persistent inflationary pressures in the Nigerian economy.

Inflation is projected to average 21.4% in 2024 before declining to 20.3% and 18.6% in 2025 and 2026, respectively.



SOURCE: National Bureau of Statistics (NBS) and MEMAN

Interest Rate

The Central Bank of Nigeria lifted its key monetary policy rate by 150 bps to a new record high of 26.25% on May 21st, 2024, following 200 basis point increases in March and February. This marks the third rate hike this year, aimed at curbing skyrocketing inflation and stabilizing the local currency. The Naira has been volatile since mid-April, depreciating nearly 30% in the past month. The inflation rate hit a fresh 28-year high of 33.69% in April 2024, up from 33.2% in March. The CBN Governor Olayemi Cardoso noted that while year-on-year inflation rose moderately, month-on-month food and core inflation declined significantly. He added the inflation pressure is being driven largely by food inflation, citing rising costs of transportation, infrastructure challenges, security challenges, and exchange rate issues as among the factors affecting food inflation.

Public Debt

According to the 2023-2025 MTEF & FSP Report by the Budget Office of the Federal Ministry of Finance, Budget and National Planning Nigeria's external reserve declined from US$40.21 billion on January 25, 2022, to US$38.66 billion on June 16, 2022, representing a 3.5% decline, and the lowest level in seven months.

The continuous decline in the external reserve level is attributable to the Central Bank's intervention in the official market aimed at ensuring the stability of the exchange rate and the failure of Nigeria to meet its crude oil production quota. The Organization of Petroleum Exporting Countries (OPEC) increased Nigeria's production quota to 1.72 million bpd for March 2022 from 1.7 million bpd and 1.68 million bpd in February and January respectively, despite its being unable to meet previous targets.

Nigerian Public Debt - ₦'bn

	TOTAL DEBT	DOMESTIC DEBT	FOREIGN DEBT	FOREIGN/TOTAL DEBT	DEBT TO GDP
2018A	24,387	16,628	7,759	31.82%	18.89%
2019A	27,401	18,379	9,022	32.93%	18.81%
2020A	32,916	20,210	12,706	38.60%	21.34%
2021A	39,556	23,701	15,855	40.08%	22.47%
2022A	46,250	27,548	18,702	40.44%	22.85%
2023A	97,341	59,121	38,220	39.26%	41.52%
2024E	127,579	74,979	54,856	43.00%	48.30%
2025F	167,209	95,090	78,732	47.09%	56.19%
2026F	219,151	120,595	113,000	51.56%	65.36%
2027F	287,227	152,942	162,184	56.47%	76.04%
2028F	376,450	193,964	232,776	61.83%	88.45%

SOURCES: DMO, NBS and MEMAN (A: Actual, E: Estimate and F: Forecast)

This data provides crucial insight into Nigeria's borrowing trends over time and projects future indebtedness. It is particularly relevant for economic planning or analysis within an industry report.

2.2 The FGN Medium-Term Expenditure (2024-2026)

As of July 2023, FGN's retained revenue was ₦5.19 trillion, approximately 80.5% of the prorate target of ₦6.44 trillion.

- The FGN share of oil revenues was ₦813.58 billion (62.6% performance), while non-oil tax revenues totaled ₦1.84 trillion (a performance of 127.7%).
- CIT and VAT collections were ₦1.16 trillion and ₦234.30 billion, representing 212.4% and 104.8% of their respective targets.
- Customs collections (made up of import duties, excise, and fees, as well as federation account special levies) recorded ₦432.96 billion out of ₦651.46 billion (66.5% of target).
- Other revenues amounted to ₦2.49 trillion, of which independent revenue (mostly transfers from goes and MDAS) was ₦1.04 trillion.

3.DOWNSTREAM OIL AND GAS REGULATORS

The Ministry of State Petroleum Resources is responsible for the formation, monitoring and administration of government policies in the petroleum industry. Additionally, it exercises general supervision over the affairs and operations of the petroleum industry in accordance with the provisions of the PIA 2021.

The Ministry now has two Ministers to supervise the oil and gas sectors.

The Ministry of State Petroleum Resources Oil

With the delineation in the Ministry of Petroleum Resources, the Minister of Petroleum Resources (Oil), Senator Heineken Lokpobiri, Ph.D., among other duties, is responsible for providing overall leadership and guidance to achieve the ministry's goals and objectives. He provides oversight in the formulation and implementation of oil-related policies necessary for realizing the ministry's mandate. Additionally, he leads the country's delegation to bilateral and multilateral meetings on petroleum resources and oversees the activities and programs of the ministry in areas such as licensing petroleum exploration and mining, regulating private sector activities and investments in the petroleum industry, and managing community relations in oil and gas-producing areas in collaboration with the Minister of Petroleum Resources (Gas).

The Ministry of State Petroleum Resources Gas

The Ministry of Petroleum, Gas is led by Rt. Hon. Ekperikpe Ekpo - the Honourable Minister of State, Petroleum Resources (Gas). As HMSPR (Gas), Rt. Hon. Ekperikpe Ekpo is poised to steer Nigeria's resolute trajectory towards the development, industrialization, and expansion of gas resources, embodying a steadfast commitment to the nation's energy evolution.
The role of the ministry includes:

- Formulate, monitor, and administer government policy in the gas industry.
- Exercise general supervision over the affairs and operations of the gas industry in accordance with the provisions of this Act.
- Report developments in the gas industry to the government.
- Represent Nigeria at international organizations on gas matters.
- Promote an enabling environment for investment in the Nigerian gas industry.
- Negotiate treaties or other international agreements on matters pertaining to gas on behalf of the Government.

- Receive recommendation of the Commission on; grant gas prospecting licenses and mining leases through the processes established in this Act, revoke and assign interests in gas prospecting licenses and leases; approve the fees for services rendered, direct in writing the suspension of operations in any area.
- The Minister shall give general policy directives to the Commission on matters concerning upstream gas operations and to the Authority on matters relating to midstream and downstream gas operations as well as matters related to co-operation among the two entities in line with the provisions of this Act and the Commission

The Nigerian Midstream Downstream Petroleum Regulatory Authority (NMDPRA)

The NMDPRA is the only downstream regulator in the Nigerian oil and gas industry which encompasses a wide range of activities involved in refining, distribution, and marketing of petroleum products and natural gas. The downstream is a critical segment of the energy sector that ensures the end-products derived from crude oil and natural gas are produced efficiently, meet safety and environmental standards, and are made available to consumers.

In line with the PIA, the NMDPRA is in-charge of downstream regulation which focuses on issues such as product quality, pricing, consumer protection, environmental compliance, and market competition. It plays a pivotal role in maintaining the reliability and affordability of energy sources while safeguarding public health and environmental sustainability.

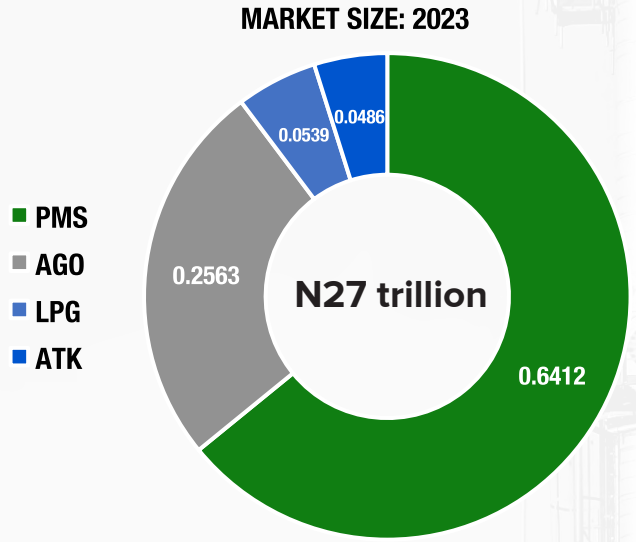
Some objectives of the authority include:

- Regulate and monitor midstream and downstream operations in Nigeria. Including technical operational and commercial activities
- Ensure efficient, safe, effective and sustainable infrastructural development of midstream and downstream operations.
- Promote healthy, safe efficient and effective conduct of midstream and downstream petroleum operations in an environmentally acceptable and sustainable manner.
- Promote a competitive market for petroleum operations.
- Promote the supply and distribution of natural gas and petroleum products in midstream and downstream petroleum operations and the security of natural gas supply for the domestic market.
- Ensure compliance with applicable laws.
- Ensure crude oil supply for domestic refineries.
- Implement government policies for midstream and downstream petroleum operations as directed by the minister.
- Promote, establish, and develop a positive environment for international and domestic investment.
- Whilst the functions of the Authority involve.
- Regulate and monitor technical and commercial midstream and downstream petroleum operations in Nigeria.
  - Regulate commercial midstream and downstream petroleum operations including.
  - Petroleum liquid operations
  - Domestic natural gas operations and export natural gas operations
- Determine appropriate tariff methodology including for
  - Processing of natural gas
  - Transportation and transmission of natural gas
  - Transportation of crude oil, bulk storage of crude oil and natural gas
- Setting cost benchmarks for the midstream and downstream petroleum industry
- Provide pricing and tariff frameworks for natural gas in the midstream and downstream gas operations.
- Advise the government, government agencies and other stakeholders on commercial matters relating to tariff and pricing frameworks.

One thing the NMDPRA must resolve to do is share data for the industry as and when due on her website. This helps in her function of monitoring operations in Nigeria. Her truck out and tank position needs to be updated in real time to aid planning in the sector for decision making.

4. LOCAL MARKET

Based on the total products consumed in 2023 and their average prices for the period, the market size of the total white products, including LPG is estimated at N27 trillion. Premium Motor Spirits (PMS) accounts for 64.1% of the total market size, Automotive Gas Oil (AGO) accounts for 25.6%, Aviation Turbine Kerosene (ATK) accounts for 4.9%, and LPG accounts for 5.4%.



SOURCES: National Bureau of Statistics (NBS) and MEMAN

Share of Product by Players – Sales

In 2023, Independent Marketers accounted for over 50% of the country's consumption of all the main petroleum products with a significant market share in AGO.

The 2023 contribution of the Major Marketers is shown in the table below. This figure represents a significant increase from 22% in 2022 as a result of some mergers and acquisitions and improved supply from NNPCL to 41.02% In 2023.

PRODUCTS	MAJOR MARKETERS	INDEPENDENT MARKETERS
PMS	41.02%	58.98%
AGO	12.47%	87.53%
DPK/ATK	30.61%	69.39%
SOURCE: MEMAN		

4.1 Petroleum Product Country Demand

From 2018 to 2023, PMS consumption exhibited notable trends. Starting as the baseline year, 2018 set the initial level of consumption. In 2019, there was a noticeable rise, possibly due to economic growth and increased industrial activity. The year 2020 saw stabilization or a slight decrease in consumption, influenced by market fluctuations and the COVID-19 pandemic. In 2021, there was a significant increase in PMS usage, likely due to the resumption of economic activities post-pandemic. Consumption peaked in 2022, reflecting robust market demand driven by economic expansion and industrial output. However, 2023 experienced a slight decline due to market deregulation and subsequent price increases, leading to reduced consumption as consumers and businesses adjusted to the new pricing structure.

States	PMS	AGO	LPG	ATK
Abia State	2.18%	0.84%	1.79%	0.01%
Adamawa State	3.28%	1.18%	0.48%	0.13%
Akwa Ibom State	2.08%	0.83%	1.43%	1.89%
Anambra State	2.98%	1.82%	4.59%	0.12%
Bauchi State	0.82%	1.27%	0.94%	0.03%
Bayelsa State	0.68%	0.34%	0.44%	0.00%
Benue State	1.88%	0.93%	0.83%	0.08%
Borno State	1.32%	1.32%	0.20%	0.36%
Cross River State	1.22%	1.21%	2.44%	0.08%
Delta State	4.89%	3.84%	5.05%	0.32%
Ebonyi State	0.58%	0.68%	0.51%	0.00%
Edo State	3.49%	4.24%	3.97%	0.12%
Ekiti State	0.59%	0.36%	1.17%	0.04%
Enugu State	2.78%	1.62%	3.84%	0.81%
Federal Capital Territory	6.24%	5.63%	4.25%	17.93%
Gombe State	1.55%	1.12%	0.17%	0.01%
Imo State	1.90%	0.99%	2.50%	1.26%
Jigawa State	0.30%	0.28%	0.02%	0.01%
Kaduna State	2.98%	2.66%	2.79%	0.18%
Kano State	6.54%	6.56%	6.01%	3.52%
Katsina State	1.10%	0.99%	0.13%	0.04%
Kebbi State	1.44%	1.03%	0.08%	0.01%
Kogi State	0.87%	6.01%	0.43%	0.01%
Kwara State	2.52%	2.27%	1.16%	0.28%
Lagos State	17.15%	21.69%	24.64%	67.79%
Nasarawa State	0.81%	0.98%	1.70%	0.03%
Niger State	4.83%	2.68%	1.13%	0.11%
Ogun State	4.71%	8.22%	7.83%	0.08%
Ondo State	2.42%	1.39%	2.15%	0.03%
Osun State	1.56%	1.12%	1.51%	0.02%
Oyo State	4.22%	3.31%	8.74%	0.24%
Plateau State	2.00%	1.28%	0.62%	0.10%
Rivers State	3.26%	5.61%	5.26%	4.13%
Sokoto State	1.00%	3.62%	0.75%	0.22%
Taraba State	0.77%	0.55%	0.30%	0.00%
Yobe State	0.55%	0.50%	0.03%	0.00%
Zamfara State	2.50%	1.05%	0.15%	0.01%

SOURCES: National Bureau of Statistics (NBS) and MEMAN

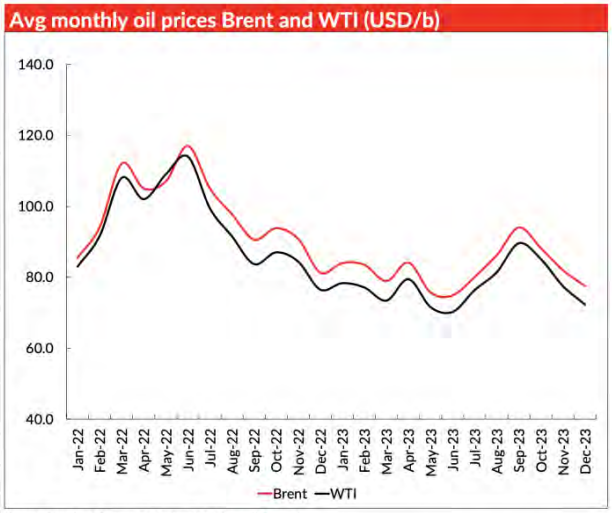
4.2 Petroleum Product Demand by Region – in Litres (2023)

	PMS	AGO	ATK	LPG
NORTH-CENTRAL	3,871,853,492	952,384,036	140,092,261	125,525,463
NORTH-EAST	1,675,578,281	286,271,596	4,034,000	26,200,237
NORTH-WEST	3,206,723,300	779,812,444	30,170,000	123,146,167
SOUTH-EAST	2,109,076,352	286,558,931	16,553,267	164,018,690
SOUTH-SOUTH	3,157,047,446	774,346,092	49,539,650	230,548,575
SOUTH-WEST	6,197,875,756	1,738,885,745	515,623,483	571,200,927

SOURCE: MEMAN

4.3 Demand Forecast (2024 – 2028)

Commodity	End - 2023 (USD/b)	End- 2022 (USD/b)	End- 2021 (USD/b)
UK Brent	77.4	85.9	77.8
WTI	72.0	80.5	77.5

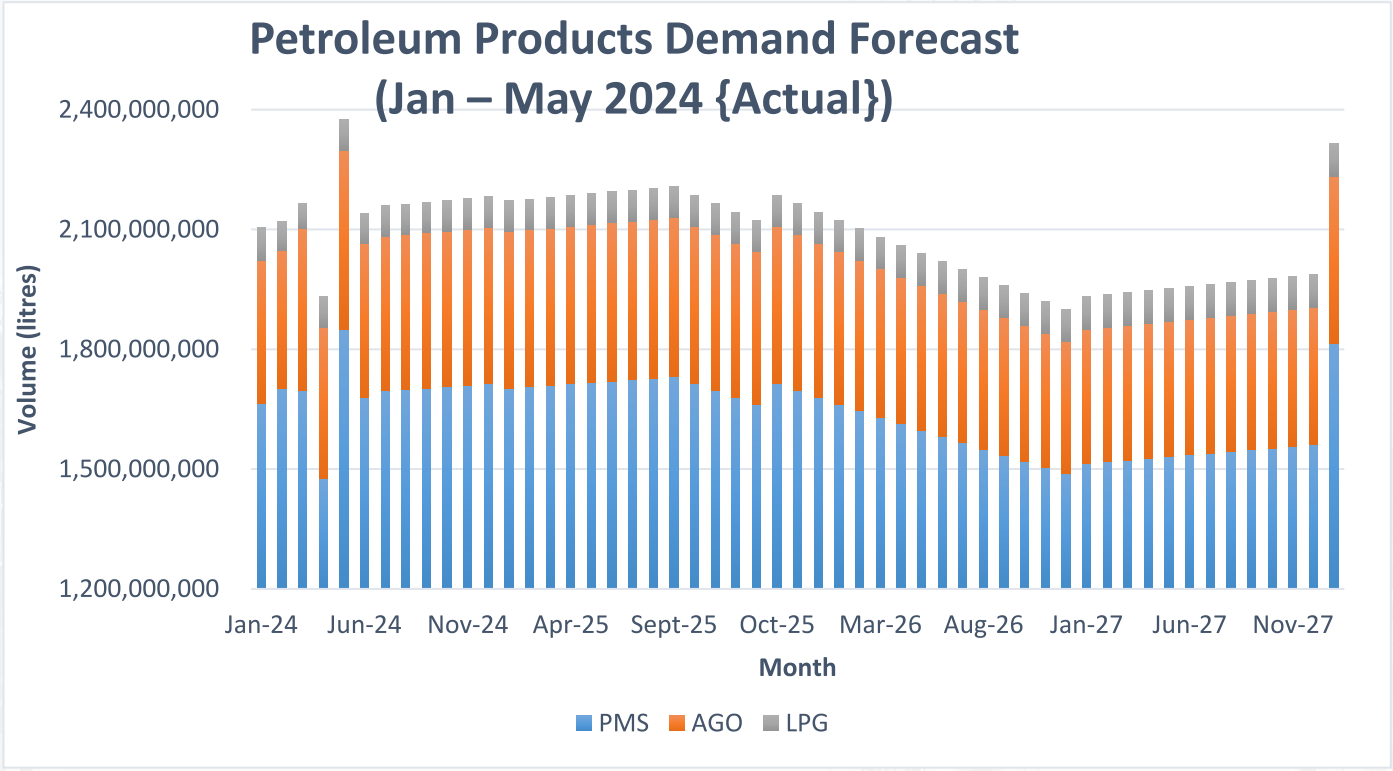


Sources: Bloomberg, Coronation Merchant Bank Economic Research

Following the removal of the petrol subsidy by President Bola Ahmed Tinubu in May 2023, Nigeria saw a noticeable drop in daily PMS (Premium Motor Spirit) consumption, from about 66.7 million litres to 44.3 million litres. However, this trend has reversed, with average daily fuel consumption for the first half of 2024 projected to range between 50 and 60 million litres. The future of the Nigerian economy remains uncertain, but it is anticipated that fuel consumption may grow marginally in the coming years due to improved supplies from the Dangote Refinery, set to begin PMS production in mid-July 2024.

In their Nigerian economic outlook, PwC forecasts a slight GDP growth of 2.9%, driven by sustained policy reforms. However, growth prospects may be limited by significant economic pressures. PwC also projects a marginal decline in inflation to 29.5% by the end of the year, balancing the effects of reforms, policy actions, external pressures, and food prices, particularly in the second half of 2024.

Given the increasing economic challenges faced by individuals and businesses, more Nigerians are turning to alternative energy sources such as CNG (Compressed Natural Gas), solar, and biomass to meet their power needs. Since the transport sector is the main driver of fuel demand, the adoption of CNG is expected to have a significant impact starting from late 2025, leading to a gradual reduction in PMS and AGO (Automotive Gas Oil) consumption by 1% per month during the first year of adoption, before stabilizing.

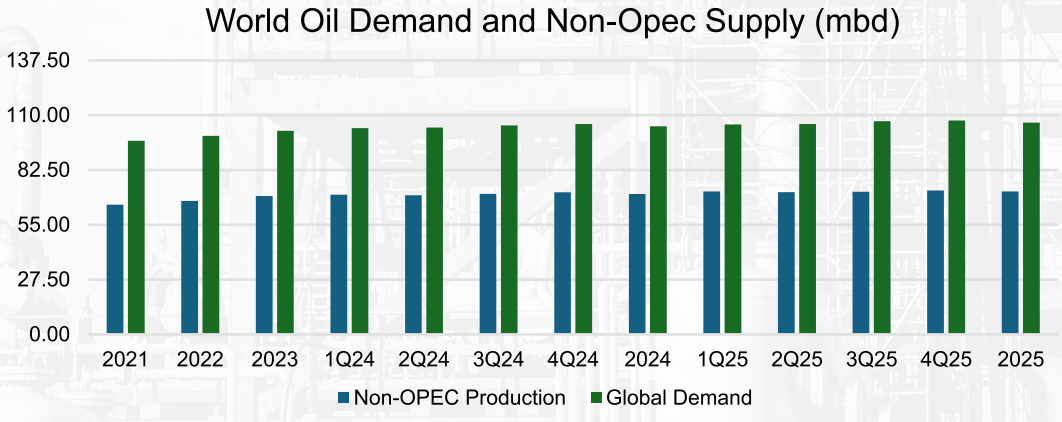


SOURCES: Coronation Merchant Bank and MEMAN

On the Demand side, oil price movements over the past year were largely influenced by concerns of low demand from China, US banking sector volatility and the impact of aggressive US interest rate hikes given elevated inflation

On the supply side, prices were influenced by concerns around supply disruptions due the impact of Hurricane Idalia, the Israel - Hamas conflict. and the 1.2mbpd production cuts announced in April '23 combined with additional voluntary cuts of 1mbpd and 0.3mbpd by Saudi Arabia and Russia.

Furthermore, supply was constrained by underproduction in select OPEC+ countries like Nigeria and Angola However, the U.S. was able to increase production enough to offset most of the impact of OPEC's cuts. The latest monthly production data from the US Energy Information Administration reveals that oil production in the U.S. increased to 13.3mb/d in November '23 from 13.2mb/d recorded in October '23. In 2023, UK Brent averaged USD98.5/b, while WTI and Bonny light averaged USD94.2/b and USD104.5/b, respectively. OPEC+ oil production averaged 26.7mb/d in December '23, compared with a target of 39.5mb/d. Oil production increased mainly in Venezuela, Libya and Kuwait, while production in Iraq, Angola and Nigeria decreased. Western sanctions on Russian crude oil exports have had mixed effects: export flow has remained relatively steady, and its price discount relative to Brent oil has shrunk over time. Russian oil is trading above the USD60 price cap imposed by the Group of Seven (G7) countries (Coronation Merchant Bank)



SOURCE: OPEC Monthly Oil Market Report

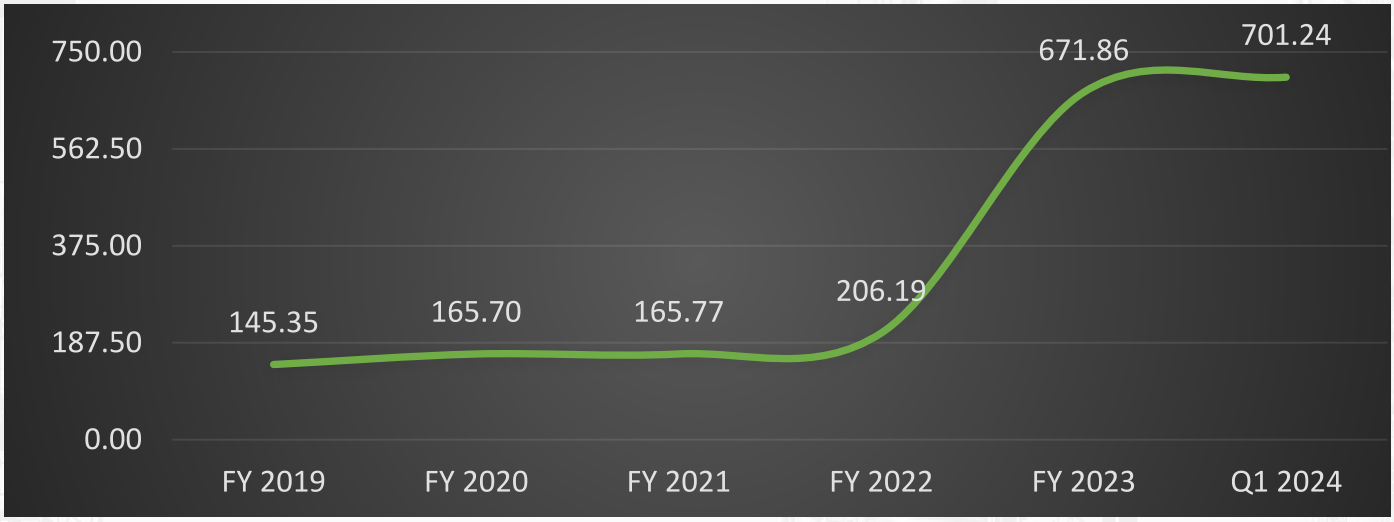
5.0. PRICING SYSTEM

Prior to April 2020, the downstream sector was partially deregulated and had no price controls on most products, except for PMS. However following a drop in the crude oil revenue and the associated drop in government revenue, the NNPC Group Managing Director announced the permanent removal of the subsidy on PMS. However, there will still be some level of intervention for the price controls for PMS as the government will still determine PMS prices. It is our hope that going forward product prices will be determined by two important variables: crude oil price at the international market and the exchange rate.

As the importation of products is now open to oil marketing companies and the monopoly of NNPC regarding the importation of PMS has been removed, we expect operators would take advantage of this. This will only largely happen in the event of foreign exchange being readily available.

Currently, the pricing system in the Nigerian petroleum industry, particularly in the downstream sector, reflects significant reforms and adjustments aimed at promoting market efficiency, reducing government expenditure on subsidies, and aligning domestic prices with international market conditions.

AVERAGE PMS PRICES (₦)



SOURCE: National Bureau of Statistics (NBS)

Key Components of The Pricing System

Deregulation and Market Liberalization

The downstream petroleum sector has tried to move towards greater deregulation. Although, the Nigerian National Petroleum Corporation Limited (NNPCL) still holds a monopoly on the importation of premium motor spirit (PMS), there is a push towards opening the market to private oil marketing companies for importing. This liberalization is intended to increase competition, potentially leading to more competitive pricing and improved supply chains.

Domestic prices for petroleum products, particularly PMS, are significantly influenced by the international prices of crude oil. As crude oil prices fluctuate on the global market, corresponding adjustments are made to the prices of refined products in Nigeria.

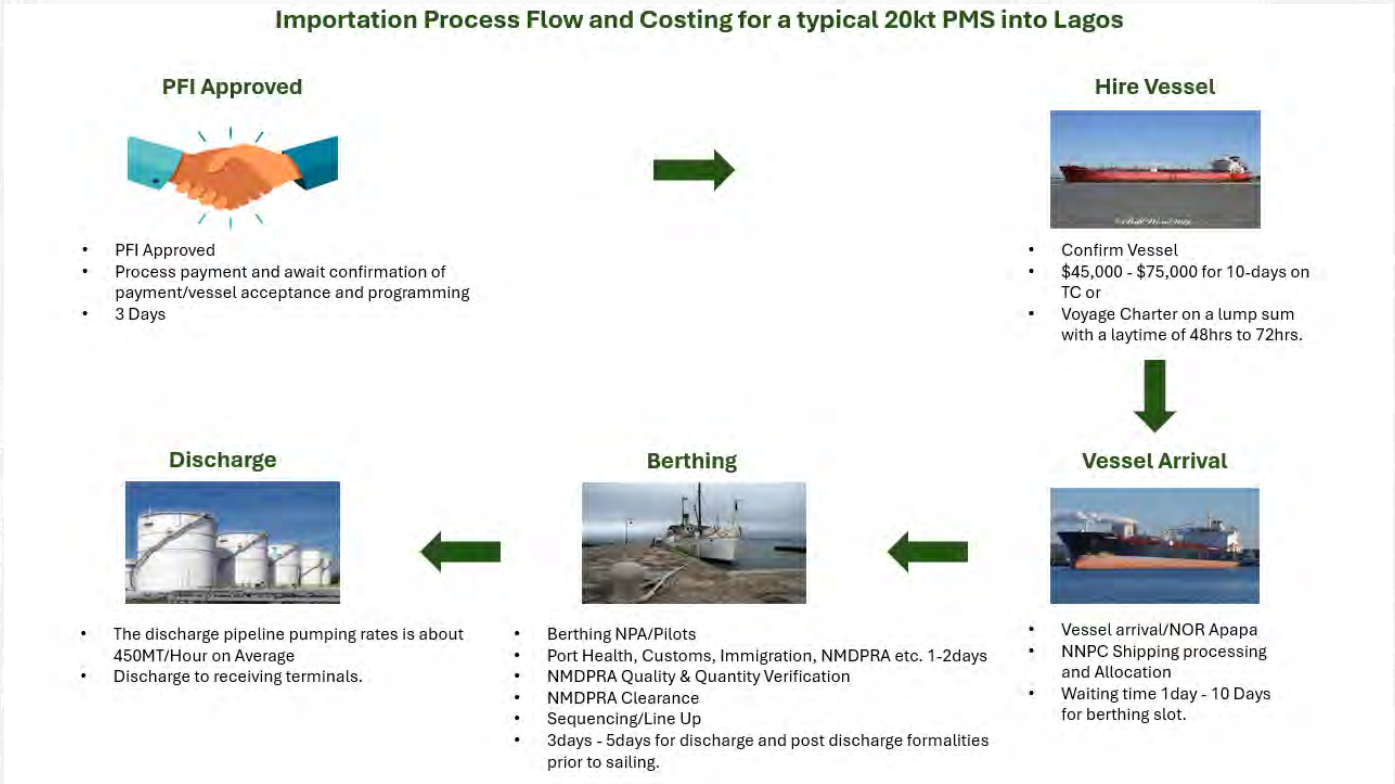
Additionally, the value of the Nigerian Naira against major foreign currencies (primarily the us dollar) is a critical factor. The cost of importing petroleum products is directly affected by exchange rate movements. A weaker

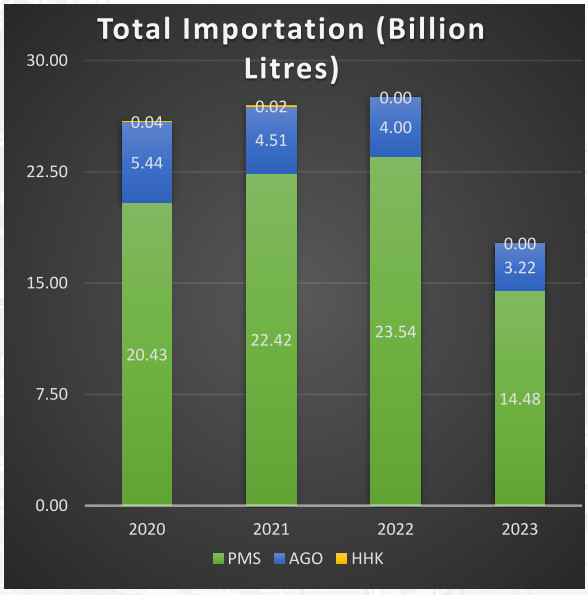
Naira makes imports more expensive, leading to higher domestic prices for petroleum products.

Despite the move towards deregulation, the Nigerian government maintains some level of control over PMS prices to manage market stability and protect consumers from extreme price volatility.

The government periodically reviews and adjusts the pricing template for PMS, considering changes in crude oil prices and the exchange rate as well as an intervention within the market to ensure due to the volatile exchange rate that the consumers don't bare all the consequences. This hybrid approach aims to balance market dynamics with socio-economic considerations, ensuring prices remain within reasonable limits for consumers.

6.0 PETROLEUM PRODUCT SUPPLY CHAIN





SOURCES: NMDPRA & National Bureau of Statistics (NBS)

In 2024, the Nigerian petroleum industry has significantly evolved, particularly in the infrastructure supporting jetties, depots, and transportation. Modern jetties inclusive of ASPMs like Pinnacle and OVH/NNPC Retail now facilitate the efficient offloading of crude oil and refined products at deeper drafts, reducing turnaround times and enhancing supply chain efficiency. However, it is still not operating to its upmost efficiency due to several factors. The upgraded depots with advanced storage and distribution capabilities ensure the stable availability of petroleum products across the country.

Transportation networks, including pipelines and petrol tankers, are being optimized to minimize losses and ensure timely delivery, although the industry majority method of transportation is via trucks and road tankers and haven't fully implemented the use of pipelines to transport products. The

conversion drive from diesel power to CNG for BRTs is also a plus from a logistics efficiency point of view. The integration of AI and IoT technologies in monitoring and managing these assets have further improved operational efficiency and safety. Additionally, the liberalization of the downstream sector has encouraged private investments in infrastructure, fostering competition and innovation. Regulatory frameworks have been strengthened to ensure compliance with safety and environmental standards. As a result, Nigeria's petroleum logistics network is more resilient, responsive, and capable of meeting domestic demands.

6.1 Vessel Arrival

Guidelines for the importation of petroleum products in Nigeria

In line with the PIA and the Federal Republic of Nigeria Official Gazette Report.

A declaration relating to a ship, tanker, or vehicle in which natural gas or its derivatives, crude oil or its derivatives, condensate, petroleum liquids, petroleum products, or any other form of petroleum liquids is to be carried, shall be verified by the Authority.

The Authority shall certify at the port of loading, measurement systems. and volumes of lifting and shipment of natural gas or its derivatives, crude oil or its derivatives, condensate, petroleum liquids, petroleum products, or any other form of petroleum liquids loaded into a ship, tanker or vehicle designated and approved for that purpose. We have outlined here some of the key guidelines that provide the standards and controls that govern the industry:

- All companies must be duly registered under the corporate affairs commission (CAC) as providers of goods and services in the downstream sector of the Nigerian oil and gas industry.
- Such companies are eligible to apply for import permits of petroleum products, subject to having access to appropriate storage facilities, which could be owned or leased from third parties.
- Import permit is valid for 90 days and each import requires a permit.
- All imported petroleum products must meet the national quality standard specifications as approved by the NMDPRA.

6.2 Jetties

Safety guidelines

Under the NMDPRA regulations with the Federal republic of Nigeria, companies operating in the jetties must appoint a manager.

A manager appointed under these Regulations shall:

a) Ensure compliance with the provisions of these Regulations, guidelines or any other directives issued by The Authority.
b) Comply with the duties of a manager as set out in the Midstream and Downstream Petroleum Operations Regulations made by The Authority.
c) Appoint in writing, a competent person to oversee and be responsible for health, safety, environment and community matters and report the appointment or subsequent change to the Authority not later than 72 hours of such appointment or change, and
d) Ensure that all personnel are given appropriate training for the efficient and safe discharge of their duties.

A Manager shall ensure that:

a) Adequate safety equipment, which meet international standards, are provided for personnel.
b) PPE is used appropriately and maintained in serviceable condition at all times.
c) Appropriate barriers and risk reduction measures are in place to ensure that personnel exposure to hazards are reduced to ALARP (As Low As Reasonably Practicable), and the risk reduction measures for hazards shall comply with hierarchy of hazard control philosophy, and many more.

Jetty Operations in Nigeria: A Critical Hub for Petroleum Products

Nigeria's petroleum industry relies heavily on efficient jetty operations to receive and distribute critical products. This article explores the role of jetties in Apapa, Lagos, focusing on the Nigerian Pipeline Storage Company (NPSC) and the Apapa Single Point Mooring (ASPM) facilities.

Key Jetty Infrastructure in Apapa

- NPSC Jetty: This versatile facility boasts three berths: PWA, NOJ, and BOP. Interconnected by a pipeline network and a common manifold, it can handle various products like PMS (Petrol), AGO (Diesel), ATK (Aviation Fuel), LPG (Liquefied Petroleum Gas), Base Oil, and Bitumen. The maximum vessel sizes these berths can accommodate range from 25,000 MT (PWA) to 30,000 MT (NOJ and BOP), with drafts varying from 8.2m to 9.3m.
- ASPM Jetty: Designed as a midstream facility, the ASPM jetty caters specifically to PMS and ago. With a draft of 13m, it can handle larger vessels up to 45,000 mt.
- It is important to add the entry of a private ASPM in Lekki Corridor which belongs to Pinnacle and the MRS Tincan Island private jetty as well in this conversation.

Serving A Network of Terminals

These jetties play a crucial role in supplying ten terminals within the Apapa Hub, clustered strategically for efficient distribution. These terminals include:

- MRS Oil Nigeria Plc.
- NIPCO Plc.
- Aiteo.
- Ardova Plc.
- Conoil Plc.
- TotalEnergies Marketing Nigeria Plc.
- Hogl.
- NNPC Retail Limited.
- NPSC LPG.
- NNPC Retail/Total Energies Joint Venture.

Ensuring Safety in Hydrocarbon Handling

As with any hydrocarbon facility, safety is paramount. The NPSC employs rigorous procedures and best practices to ensure the safe handling and discharge of products. This includes utilizing safety equipment strategically placed around the jetty. However, continuous upgrades are essential to elevate the facilities to world-class standards, incorporating advanced amenities and technologies.
Looking ahead: a vision for modernization.
The future of these jetties hinges on implementing several key improvements:

- Dredging: Deepening the harbour to accommodate larger vessels (up to 40,000 MT) would eliminate the need for Ship-to-Ship (STS) transfers, allowing vessels to berth directly and provide massive cost savings.
- Marine Loading Arms: Installing these arms would enhance efficiency and safety during product loading operations.
- Double Block and Bleed (DBB) Valves: Equipping the manifold with these valves would ensure positive

product segregation and maintain quality integrity.
- Firefighting Upgrades: Enhancing the firefighting equipment and capacity of the jetties would further strengthen safety protocols.

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Enhanced metering systems

By implementing these advancements, Nigerian jetty operations can achieve greater efficiency, safety, and global competitiveness, ultimately serving the nation's energy needs more effectively.

Future Outlook of Jetties

The outlook for jetties in Nigeria is quite promising due to the significant impact of the Dangote refinery and recent legislative changes. Here are the key factors contributing to this positive outlook:

Impact of the Dangote refinery

- Increased Demand for Jetty Infrastructure: The Dangote refinery, one of the largest in the world, will significantly boost the demand for jetty infrastructure to handle the import and export of crude oil and refined petroleum products. This will necessitate the expansion and modernization of existing jetties and the construction of new ones.
- Economic Stimulus: The refinery is expected to create numerous direct and indirect jobs, including those related to the construction and operation of jetties. This economic activity will attract further investments in port infrastructure.
- Public-Private Partnerships (PPP): The government is increasingly adopting PPP models to develop port infrastructure. These partnerships can leverage private sector efficiency and capital to enhance jetty facilities.

Technological And Operational Improvements

- Modernization of Facilities: The need to handle larger and more technologically advanced vessels will drive the modernization of jetty facilities, incorporating state-of-the-art technology for loading, unloading, and storage of oil and gas products.
- Enhanced Safety and Environmental Standards: Compliance with international safety and environmental standards will necessitate upgrades to existing jetties, ensuring they can operate safely and sustainably.

Challenges And Considerations

- Infrastructure Deficit: Despite the positive outlook, Nigeria still faces an infrastructure deficit that needs to be addressed to fully capitalize on these opportunities. Continuous investment in not just jetties, but also ancillary infrastructure like roads and railways, is crucial.
- High cost of capital.
- Regulatory Environment: While new legislation is favourable, the consistency and enforcement of regulatory policies will be key to sustaining investor confidence and ensuring smooth operations.
- Security Concerns: Addressing security issues, particularly in the Niger Delta region, is essential for the uninterrupted operation of jetties and the safe passage of vessels.

6.3 Depots

Berthing Process

On arrival of vessel at anchorage, possibly after a Ship-to-Ship transfer of product (STS) the vessel is declared and notice of readiness is tendered, it is expected to wait in turn for vessel to be programmed for berthing by the supply and distribution department.
Upon berthing at the jetty, the vessel is expected to submit the following documents:

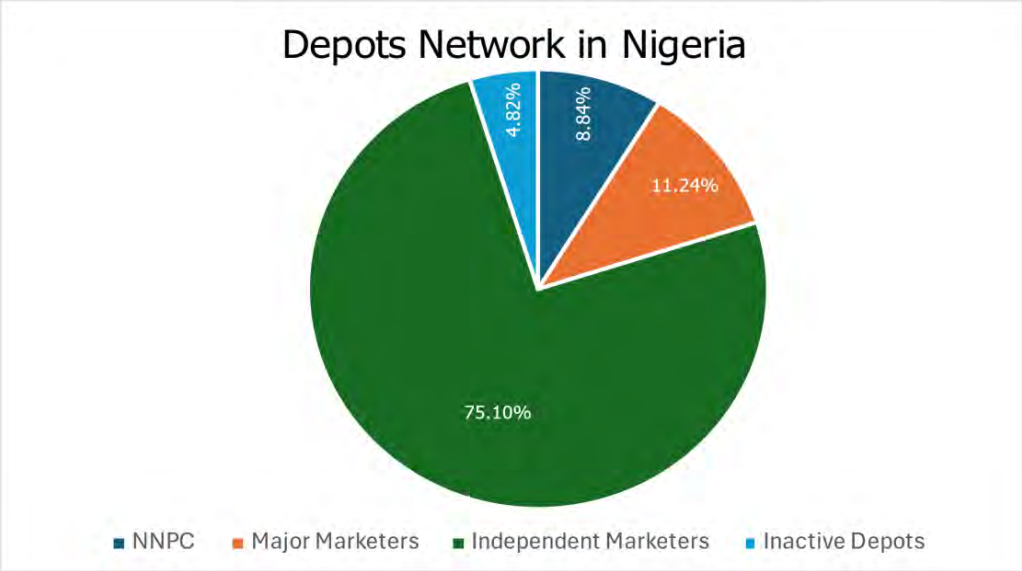
- Ship particulars.
- Bill of lading
- Cargo manifest
- Certificate of origin
- Port of call
- ISPS Certificate
- Certificate of quantity
- Certificate of quality

From the jetty, the cargo is recertified to ascertain the quality. While this is ongoing, NMDPRA gives the vessel Nomination upon which cargo surveyor Ullage commence to ascertain the quantity the vessel came with.

Once all this is done and we get the quality recertification and product is certified ok, NMDPRA issues a clearance for the vessel to discharge while MEMAN Jetty Superintendent draws up the sequence of discharge to be followed by the chief officer of the vessel. Once the tank of the first terminal to receive has been prepared, the hoses are then connected to the jetty for product discharge.

Depots Network in Nigeria

OPERATORS	NUMBER OF DEPOTS	DEPOTS SHARE	CAPACITY (m^3)
NNPCL	22	8.84%	
MAJOR MARKETERS	28	11.24%	
INDEPENDENT MARKETERS	187	75.10%	
TOTAL ACTIVE	237	95.18%	
INACTIVE DEPOTS	12	4.82%	
TOTAL	**249**	**100.00%**	**10,380,368.73**
SOURCE: MEMAN			



6.3 Refineries

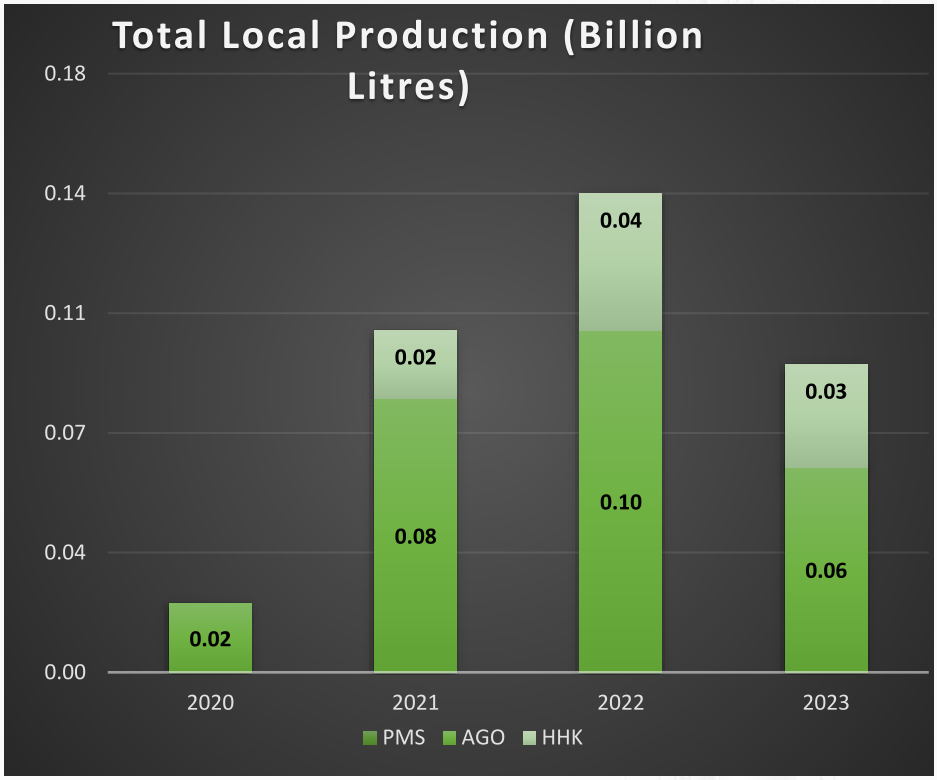
According to the National Energy Policy from the Energy Commission of Nigeria, Nigeria has four refineries with a total installed capacity of 445,000 barrels per day. However, capacity utilization is low. Consequently, annual consumption of petroleum products is not fully met by internal production and must be supplemented by imports. Currently, efforts are being made to increase capacity through private sector participation, especially through conventional and modular refineries.

The nation is clearly over dependent on crude oil for its foreign exchange earnings, which currently contributes about 80%; hence, the economy is vulnerable to the unstable nature of the international oil market. Therefore, there is a need to promote the expansion of refineries to allow export of petroleum products. Furthermore, it is desirable to diversify the domestic energy mix away from ever-increasing consumption of petroleum products in order to avert any possible conflict between domestic and export requirements.

Oil will continue to play a major role in the nation's economy. At current proven reserve of and production rate, of Nigeria crude oil reserve will last for years, additionally with current investment and refurbishment to refineries planned Nigeria should see an increase in their production.

1. **Port Harcourt refinery complex:** Located in Port Harcourt, Rivers State, this complex consists of two refineries with a combined capacity of 210,000 barrels per day (bpd). However, they have been operating well below their capacity due to various issues.
2. **Warri Refinery and Petrochemical Company (WRPC):** Situated in Warri, Delta state, this refinery has a capacity of 125,000 bpd. Like the Port Harcourt complex, it has faced operational challenges leading to low production levels.
3. **Kaduna Refining and Petrochemical Company (KRPC):** Located in Kaduna State, this refinery has a capacity of 110,000 bpd. It has also experienced operational difficulties, resulting in reduced production.

Despite being an oil-producing country, Nigeria has often struggled with domestic refining capacity, leading to a reliance on imported refined petroleum products to meet domestic demand. This dependency has contributed to issues such as fuel scarcity and fluctuations in fuel prices within the country. Efforts to rehabilitate and upgrade these refineries have been ongoing, but progress has been slow due to various factors including funding constraints, technical challenges, and bureaucratic issues.



SOURCES: NMDPRA & National Bureau of Statistics (NBS)

Port-Harcourt Refinery

Company Profile

The refinery complex comprises of two refineries at Alesa-Eleme near Port Harcourt in rivers state. Port Harcourt (new refinery) is a complex, conversion refinery with a nameplate distillation capacity of 7,500,000mt (150,000 bpd). It came on stream in 1988 and was originally intended to serve as an export refinery. It has been subsequently dedicated to domestic market service given frequent interruptions in supply from the other three refineries in Nigeria. Port-Harcourt ii has considerable clean fuel capability, including lead-free gasoline, but has lack efficiency due to maintenance in recent years, however the NNPCL refineries will still come up due to high investment. With recent investment of $1.5bn in the Port-Harcourt refinery rehabilitation program.

Equity structure

The company has an authorized share capital of ₦5 million, divided into 5 million ordinary shares of ₦1 each. Preparatory to its privatization, the company is being incorporated as a separate business entity outside NNPC. This will lead to the creation of a new capital structure for the company.

Facilities

The two refineries have two main facilities respectively- the main processing units and the utilities and tank farms.

Utilities

Old refinery:

The old refinery has its own utilities and tank farm. The utilities consist of water boreholes, water treatment, cooling water tower, instrument air and steam boilers. The only utilities supplied from the new refinery are power and nitrogen by air. The old refinery is designed to generate its own gas as process fuel. However, this is generally supplied from processing LPG from storage through the LPG plant to provide sufficient gas to operate the old refinery.

Product and services

The refinery is configured to produce various yields of the following crude oil products:

- Crude
- Low Pour Fuel Oil (LPFO)
- LPG
- High Pour Fuel Oil (HPFO)
- Gasoline
- Fuel Gas
- DPK
- AGO

Performance of the enterprise

The combined capacity of the two refineries is 210,000 barrels per day. The old refinery was designed to process 60,000 b/d of tnp, a blend of medium Nigerian crude oil, whilst the new refinery is capable of processing third party crude oil.

Recent processing performance is much below design capabilities in terms of both refinery throughput and the yield of a higher valued product slate. The refinery has seldom operated above 50% of design capacity and the 1990's saw a gradual decline in refinery throughput with proportionately increasing yields of lower value fuel oil product. Following the turnaround maintenance carried out in 2000, throughput improved its level of performance. Until 1995, the yield performance of the refinery was in line with design. The design expectations were 33% gasoline, 42% middle distillate with just 19% fuel oil and 5% for fuel loss, plus 1% LPG.

Poor maintenance of facilities and inadequate manpower has over the years been the major reason for epileptic performance of the refinery. With a capacity to refine 210,000 barrels per day out of the local capacity of 450,000 the refinery, if well operated, will cater for the large market existing for petroleum products in Nigeria and West Africa.

Port-Harcourt Refinery

Company profile

The refinery was commissioned in 1980 to supply petroleum products to northern Nigeria with a capacity of 50,000 b/d. In 1983, the capacity was expanded to 100,000 b/d by adding a second 50,000 b/d crude train dedicated to the production of lubricating oils (lubes). In 1986, the capacity of the first crude train was expanded to 60,000 b/d. The expansions have increased the current nameplate capacity of the refinery to 110,000 b/d.

Main plants

Crude Distillation Unit (CDU) – 1 (fuels):
CDU – 1 feeds the fuels train of the refinery. It was designed to process 50,000 b/d of Nigerian crude (a 50/50 blend of Escravos and Forcados) and later revamped to 60, 000 by adding a pre-flash column and a second heater. The unit is designed to late 1970s standards, which make it an energy efficient design.

Crude distillation unit (CDU) – 2 (lubes):

CDU – 2 feeds the lube. CDU –2 is currently not functioning because the utilities performance is not up to par and cannot support the running of the unit.

Petrochemicals unit:

This unit consists of a production complex with a target of 91 tonnes per day of linear alkyl benzene (lab), which is the major feedstock for the production of detergents. It was commissioned in 1988 and uses up process technologies.

Facilities

The main refining units and their capacities are shown below:

Process	Unit	Capacity
Crude distillation, fuels	Cdu – 1	60,000 b/d
Vacuum distillation, fuels	Vdu – 1	15,200 b/d
Fluid catalytic cracking	Fccu	21,000 b/d
Naphtha hydrotreating	Nhu	24,000 b/d
Kerosene hydrotreating	Kht	17,500 b/d
Catalytic reforming	Cru	17,500 b/d
Sulphur recovery	Sru	10 tonnes/day
Crude distillation, lubes	Cdu –2	50,000 b/d
Vacuum distillation, lubes	Vdu – 2	23,000 b/d
Propane deasphalting	Pdu	7,860 b/d
Furfural extraction	Feu	12,450 b/d
Mek dewaxing	Mdu	5,300 – 9,400 (depending on what base oil is being produced)
Wax deoiling	Whu	75 tonnes/day
Asphalt blowing	Abu	6,000 b/d
Linear alkyl benzene	Lab	91 tonnes/day
SOURCE: Bureau of Public Enterprises (BPE)		

Utilities

The refinery has all the utilities (on site) required for its operation. The installed capacities of the utility plants are shown below:

Utility	Capacity
Electricity – steam turbines	4 x 14 mw
Steam boilers	5 x 120 t/hr @ 42 bar
Raw water treatment	750 m3/hr
Cooling water	18,100 m3/hr
Demineralized water	340 m3/hr
Nitrogen	920 nm3/hr
Utility	Capacity
Electricity – steam turbines	4 x 14 mw
SOURCE: Bureau of Public Enterprises (BPE)	

Products

The refinery produces various yields of crude oil by products as shown below:

- LPG.
- Gasoline.
- Jet/kerosene.
- Gasoil/diesel.
- Fuel oil.
- Asphalt lubricants.
- Waxes.
- Lab/petrochemicals

The above table shows 2003 production statistics till April 4th before the plants were shut down due to operational reasons.

From current government pronouncements, Nigerian has embarked on the road to full petroleum products pricing liberalization. This would allow adequate and fair returns on investment.

Refinery performance

The refinery has a capacity of 110,000 b/d. However, since 1983 it has never achieved full throughput and production has declined apart from the early 1990's, which saw a brief upswing in production.
The throughput for the refinery in 2002 was about 40,000 b/d as against the nameplate capacity of 110,000 b/d, which translates to about 36% capacity utilization.

The inefficient operation of the refinery could be attributed to these main issues listed below solving of which would ensure that the refinery could be run at an optimum capacity.

- Crude oil is currently being supplied by pipeline from the Escravos terminal, which is located along the volatile Niger Delta area.
- Refurbishing of the existing utilities of the plant so that they would perform at optimum and meet all the operational requirements of the refinery.

With the size of the whole northern region of Nigeria and the countries that border the region (Niger and Chad) the Kaduna refinery has the market to ensure that all its output is consumed. i.e. The Nigerian market would consume all the PMS and some of the AGO, and the other countries consuming other products.

The refinery operating at 90 – 95% capacity and with current crude prices is expected to recoup its investment and make profits in just a few years of operations.

Warri Refinery

This refinery is located at Warri in Nigeria's delta state and was commissioned in 1978. Warri is a complex conversion refinery with a nameplate distillation capacity of 6,250,000 mta (125,000 bpd). The refinery complex includes a petrochemical plant commissioned in 1988 with production capacities of 13,000 mta of polypropylene and 18,000 mta of carbon black. The refinery supplies markets in the south and southwest regions of Nigeria.

Modular Refineries

Modular refineries are refineries whose capacities are between 1,000 and 30,000 bpsd. Most of the modular refineries, particularly those with capacities of less than 20,000 bpsd, are built to refine petroleum products other than PMS. Modular refineries are better suited for AGO and LPFO. They have the following advantages over conventional refineries that have capacities in excess of 30,000bpsd:

a) They can be a good model to supply products to a regional market and thereby reduce logistics cost, which is usually a large cost in downstream operations.
b) They are usually very flexible to upgrade from one form to the other and can be constructed in phases.
c) The capital outlay to construct a modular refinery is low and the payback period is usually shorter than the conventional refinery.
d) The land requirement is lower than that of a conventional refinery; and
e) It does not take a long period to complete; the scope of installation and other work required is lower than that of the conventional refinery.

Nigeria has 25 licensed modular refineries with a combined capacity of producing 200,000 barrels of crude oil daily.

Although not all the plants are currently operational with the ones that are operational doing low ends AGO and Low poor fuel oil (LPFO).

The Dangote Refinery

The Dangote Petroleum Refinery and Petrochemicals, a subsidiary of Dangote Industries Limited, is the world's largest single train petroleum refinery.

The 650,000 barrels per day (bpd) crude oil refinery covers an area of approximately 2,635 hectares and is located in the Dangote Industries Free Zone, Ibeju-Lekki, Lagos.

Total storage capacity of 4.5 billion litres which can cover:

- 20 days crude requirement
- Product storage for 15 days of Nigeria's gasoline consumption

The Dangote Petroleum Refinery is an industrial plant that transforms crude oil into various usable petroleum products such as diesel, gasoline, jet fuel and kerosene.

The refinery produces Euro-V quality gasoline and diesel, as well as jet fuel and polypropylene.

The refinery is designed to process large variety of crudes including many of the African Crudes, some of the Middle Eastern Crudes and the US Light Tight Oil.

Dangote Petroleum Refinery can meet 100% of the Nigerian requirement of all liquid products (Gasoline, Diesel, Kerosene & Aviation Jet) and also have surplus of each of these products for export.

The refinery is designed to use the latest technology to comply with stringent guidelines and regulations to protect the local environment, and at the same time produce the latest environmentally friendly petroleum

products for worldwide markets.

The refinery design conforms to World Bank, US EPA, EU, and Department of Petroleum Resources (DPR) emission/effluent norms.

The refinery has its own dedicated steam and power generation system with adequate standby units for reliable / uninterrupted utility supply to operating plants. 435MW power plant that is able to meet the total power requirement of Ibadan distribution company, covering five states, including Oyo, Ogun, Osun, Kwara and Ekiti.

Dangote is one of the few companies in the world executing a Petroleum Refinery and a Petrochemical Complex directly as an Engineering, Procurement, and Construction (EPC) contractor.

The Petrochemical Plant is designed to produce 77 different high-performance grades of polypropylene. Petrochemical is the source of raw materials for many manufacturing and assembling plants. Products from the plant will serve as raw materials for the production polyvinyl chloride (PVC), which is used extensively across a broad range of industrial, technical, and everyday applications including widespread use in building, transport, packaging, electrical/electronic and healthcare applications.

Dangote Petroleum Refinery maintains high standards for all its business practices, valuing health, safety, environment and rights for its employees, compliance with all applicable local and international laws, and being a committed partner to host communities, governments and also environment friendly.

Dangote Industries developed port and constructed quays with a load bearing capacity of 25 tonnes/square metres to bring Over Dimensional Cargoes close to the site directly to handle liquid cargoes.
The Jetty is situated at distance of 12.3 km from the refinery thereby effectively reducing the travel time.

Capabilities for both land and sea evacuation to serve both domestic and export markets.
Dedicated marine facilities for offtake of crude and loading of petroleum products.

Marine facility:

- Self-sufficient marine facility with ability for freight optimization.
- Largest single order of 5 SPMS anywhere in the world.
- Two crude SPM for unloading ships up to ULCCS.
- Three product SPM for product exports up to Suez Max Vessels.
- 2 x 48" sub sea crude pipelines with interconnection.
- 3 x 24" subsea pipelines for products and imports.
- 120 km subsea pipeline.
- Crude offloading capacity – 108,500 barrels/hour (17.25 million litres/hr).
- Product loading capacity – 77,000 barrels/hour (12.32 million litres/hr).

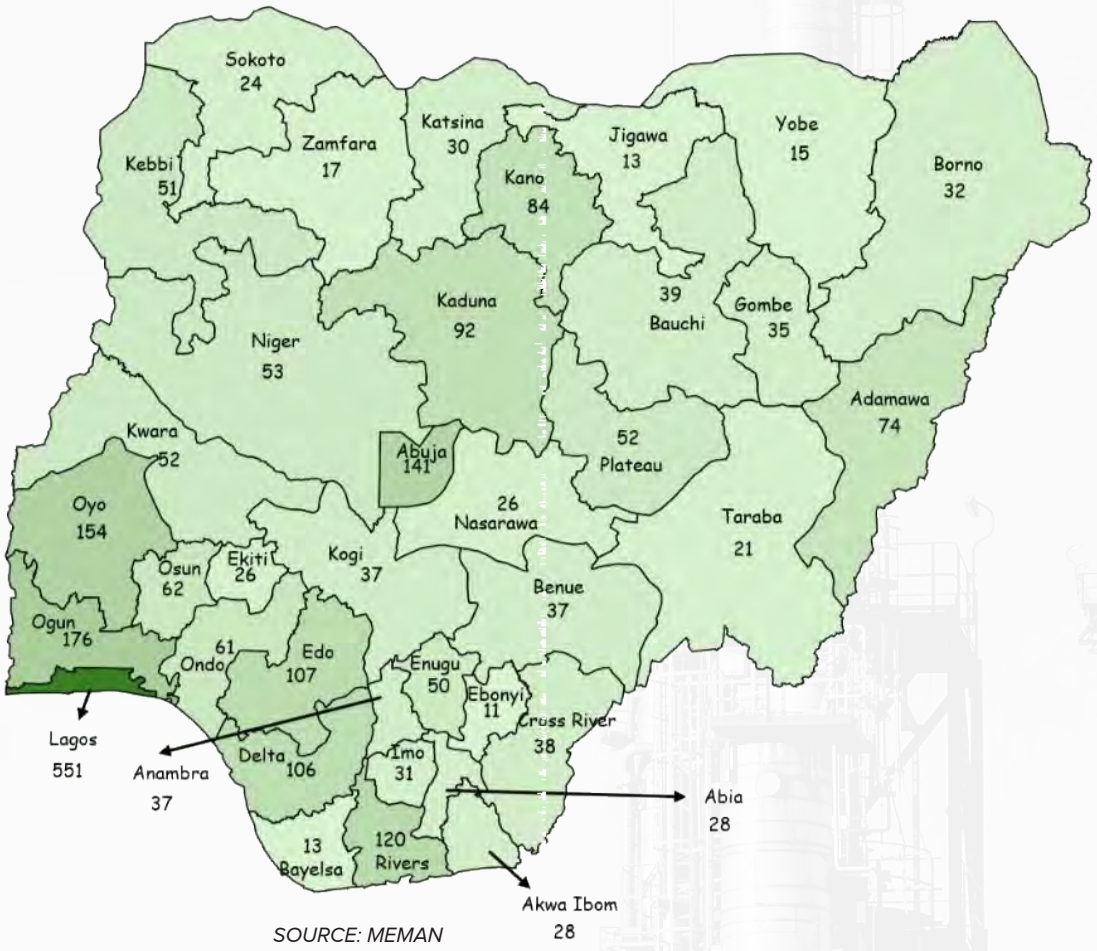
WalterSmith Refinery

Waltersmith Petroman Oil Limited was incorporated in 1996 as a Joint Venture between Waltersmith & Associates Limited, a Nigerian company and Petroman Oil Limited of Calgary, Canada to operate as a Petroleum Exploration and Production company. In 2001, Waltersmith Petroman Oil Limited became a wholly-Nigerian owned company with the divestment of Petroman Oil Limited.
Our Refinery phase I, which is a 5,000bpd refinery, was commissioned in 2020 amidst the pandemic. It was conceptualized as an operational solution with respect to the
increasing risks faced in our upstream operations to optimize the full value of our
produced crude through domestic refining and provide petroleum products for the
domestic market. The Commissioning of 5,000BPD Phase I & Ground-breaking of Phase II, 25,000BPD was attended by many Industry stakeholders on November 24th 2020.

The Refinery phase II is a stand-alone 25,000bpd condensate refinery at an
advanced stage of project development, having completed a feasibility study and front-end engineering design (FEED) and initiated the EPC contract tendering process. The formal groundbreaking was carried out simultaneously with the commissioning of our Phase I on the 24th of November 2020.It has a scheduled completion period of 24 months from the groundbreaking date.The project is still at an early stage of development but is designed to produce
the following products: gasoline, diesel,LPG, kerosene, and aviation fuel.

7.0. RETAIL STATIONS

According to data from MEMAN members as of 2024, Lagos state leads with a significant concentration of 551 filling stations, reflecting its status as a major commercial hub. Ogun (176), Oyo (154), and Abuja (141) also show high numbers of filling stations, indicative of their economic activities and population densities. Conversely, states like Jigawa (13), Bayelsa (13), and Yobe (15) have the fewest MEMAN-owned filling stations, highlighting regional disparities in the distribution of these facilities. In total, there are 2,524 MEMAN-owned filling stations across Nigeria, providing essential infrastructure for fuel distribution and accessibility throughout the country.



SOURCE: MEMAN

8.0 TRANSPORTATION

8.1 Transporting petroleum and gas products

Nigeria currently has inefficient Pipelines, most of which are moribund. Although there have been talks of expanding the mode of transporting products towards pipelines. The primary mode of transportation is trucks. The push towards pipelines, though more efficient, carries its own risks such as cost of investment. Currently there are about approximately 10,000 trucks servicing the downstream industry to move petroleum products, with approximately 4,000 trucks owned by MEMAN members.

9.0. RECENT DEVELOPMENTS IN THE INDUSTRY

Intervention of the downstream sector:

Nigeria has been gradually moving towards deregulating its downstream petroleum sector, particularly the pricing of petroleum products such as petrol (gasoline). This involves reducing or removing government subsidies on fuel prices and allowing market forces to determine prices. Deregulation aims to encourage investment in refining capacity, promote competition, and reduce the burden on government finances. On 29th May 2023, President Bola Tinubu announced the removal of subsidy to lift major financial burden off the Nigerian government due to the unsustainable nature. Last year over Three Trillion Naira was used to subsidize petrol, which was more than the government spent on healthcare and education combined.

Apart from helping to save public funds, the removal of the subsidy was also expected to allow for more private-sector operators in the petrol industry be more competitive in the importation of the product. However, this came with a market pushback, following the announcement, the Nigeria national petroleum company limited (NNPCL) directed its outlets nationwide to sell fuel between N480 and N570 per litre, an almost 200% increase from the initial price below N200, leading to a significant increase in transportation fares and prices of goods and services. The pronouncement was trailed by panic buying and gridlock across filling stations in many parts of the country, even as regulatory bodies called for calm amid the chaos. This chaos in resulted in government intervention within the industry to try and stabilize the price of PMS. Due to foreign exchange implications the removal of the subsidy meant that private sector operators would struggle to import due to the paucity of FX and the diminishing Naira Value. While the subsidy is gone declaration by the President, major price imbalances between the NNPC and Private marketers still exists, preventing a market liberalization despite subsidy removal.

Investment in refinery infrastructure:

Nigeria, despite being a major oil producer, has struggled with inadequate domestic refining capacity, leading to the reliance on imports for refined petroleum products. Recent efforts have been made to address this issue, including plans for the rehabilitation and construction of new refineries.

The Dangote refinery, set to be one of the largest in Africa, when fully operational, is expected to significantly boost Nigeria's refining capacity and Africa at large. This would provide huge economic benefit to the economy not only creating over 100,000 jobs for Nigerians but will enable Nigerian government and private sector to refine their extracted crude which would reduce the value of the PMS due to reduced freight, taxes and ultimately a better balance of trade/payment which would lead to lower foreign exchange rates in the long run. Additionally, it would mean we could see a reduction in fuel scarcity, if we struggle to meet the demand of domestic crude supply obligation due to low production, the Dangote refinery can import crude oil to refine with assays that enable efficient blending such as WTI (Western Texas intermediate) for onward sales to the local, regional and international market.

Development of sustainable energy:

In line with global trends towards cleaner energy sources, there has been increasing emphasis on the development of Nigeria's natural gas resources. The government has been implementing policies to promote gas utilization in power generation, industrial applications, and domestic use. Projects such as the Nigeria liquefied natural gas (NLNG) and the compressed natural gas (CNG) expansion demonstrate the country's commitment to gas development. The development of renewable energy sources in Nigeria has been gaining momentum in recent years, driven by various factors such as environmental concerns, energy security, and economic diversification. While Nigeria has historically relied heavily on fossil fuels, particularly oil and gas, there is increasing recognition of the need to transition towards cleaner and more sustainable energy sources. A just energy transition into sustainable energy resources would result in:

1. Economic growth: the development of renewable energy sectors such as solar, ethanol, and biofuel can create a substantial number of jobs in manufacturing, installation, maintenance, and research and development. This can reduce unemployment and stimulate economic activity and ultimately increase GDP. A reduction in unemployment would lead to increased income for households in Nigeria resulting in more spending and local purchasing of goods and service, therefore the distribution of money would be far wider resulting in an improvement in the overall economy due to an increase in government earing through tax. This can therefore drive economic forces towards the development of Nigeria in addition to reducing the poverty rate.

Additionally, a growth in the energy industry will attract investments: sustainable energy projects can attract both local and international investments. The global shift towards green energy means there is substantial financial capital available for countries that prioritize renewable energy projects. Helping to improve the foreign exchange, improve the foreign currency trade as well as potentially creating more jobs in the economy.

Diversification of the economy: - reducing dependence on oil and gas can diversify the Nigerian economy. A diversified economy is more resilient to global oil price fluctuations, which have historically caused economic instability in Nigeria. This would lead to a more balanced economy, also reducing the impact such as FX and inflation on the economy where we have changes within the Petroleum sector.

2. Environmental sustainability: reduction of greenhouse gas emissions: transitioning to renewable energy sources reduces the emissions of greenhouse gases and other pollutants. This is crucial for mitigating climate change and improving air quality. Nigeria is considered as a hot country with temperatures rising, floods arising and many more impacts on climate change impacting crop harvesting as well as the standard of living within the economy. More and more people are susceptible to heat strokes and medical challenges due to the increase in global temperature. Looking after our environment should be priority number one in order to protect our homes and economy. This would result in more stable weather conditions. Of recent months Nigeria have been experiencing heavy rainfall and flooding, which has worsened over the years therefore a transition to more sustainable energy would help in the attempt to mitigate climate change.
Preservation of natural resources: sustainable renewable energy projects, such as solar and wind, have a lower impact on the environment compared to fossil fuel extraction, which often leads to deforestation, soil degradation, and water contamination. There has been a battle of fuel vs food crisis in driving biofuels whilst transitioning to alternative energies, however relying solely on one source of energy poses a risk on the environment due to deforestation and soil degradation. Although not seen as a huge threat these problems build up over time, with more time passing making it harder to grow food, and worsens the quality of air we breathe in.

3. Social development: enhanced quality of life and community development: access to reliable and clean energy can improve the quality of life by enabling better healthcare, education, access to electricity and technology and other essential services, particularly in rural areas. A reduction in pollution from fossil fuels can decrease respiratory and cardiovascular diseases leading to improved public health outcomes. First, it would mean that more people are healthy, improving productivity and availability to work thus improving overall production within the working economy. Furthermore, this would not only improve the quality of life but the economic development as it will enable more Nigerians have access to basic things which have been largely unavailable to many. Access to electricity and technology alone, would improve the literacy rate as citizens would have the basic tools such as the internet to carry out research and self-teach themselves new skills. Renewable energy projects can drive community development by providing electricity to underserved areas, enhancing education opportunities, and fostering local enterprises. Therefore, giving the community a chance to take themselves out of poverty through local trade and skills learnt, earning them potential job opportunities.

9.1 Compressed Natural Gas (CNG)

Nigeria, rich in natural gas reserves, has traditionally focused more on oil extraction, underutilizing its gas potential. Environmental concerns and the need to diversify energy sources and reduce reliance on imported fuels have driven renewed interest in domestic natural gas, particularly Compressed Natural Gas (CNG). This shift marks a significant step in reshaping Nigeria's energy landscape.

The Nigerian government has implemented various policies and programs to promote CNG usage, such as the national gas policy and the Nigerian gas flare commercialization program. These initiatives aim to attract investment in gas infrastructure, encourage CNG use, and foster a supportive environment for industry growth. Progress includes developing CNG infrastructure, establishing refueling stations, and setting up conversion centres in major urban areas. Private sector investment, bolstered by government incentives, has supported this infrastructure expansion, though growth remains gradual.

The Pi-CNG

The Presidential CNG Initiative (Pi-CNG) is also driving CNG as Auto Gas. This approach aims to drive public transportation and reduce the cost of logistics which is directly related to cost of goods and services.
The Presidential CNG Initiative is a component of the palliative intervention of the President Bola Ahmed Tinubu administration directed at providing succor to the masses occasioned by the transitive hardships of the fuel subsidy removal policy of the Federal Government of Nigeria.

Sequel to the removal of the PMS subsidy and the full deregulation of the petroleum products market, the price of PMS has increased significantly. As such there is a need to consider alternative sources of fuel, primarily CNG and EV for vehicles.

Awareness of CNG's environmental benefits, cost advantages, and government support is increasing, with fleet operators, commercial enterprises, and public transportation agencies leading adoption.

Advantages of CNG:

- Compressed Natural Gas (CNG) utilizes abundant in-country natural gas resources, providing a reliable and domestically sourced energy solution.
- It reduces emissions, aiding in climate change mitigation by producing fewer pollutants compared to traditional fossil fuels.
- CNG offers lower fuel costs compared to Premium Motor Spirit (PMS) and Automotive Gas Oil (AGO), making it a more economical choice for consumers.
- It has the potential to lower maintenance expenses due to its cleaner burning properties.
- The use of CNG decreases the likelihood of fuel pilferage, enhancing fuel security and efficiency.

Challenges of CNG:

- Compressed Natural Gas (CNG) involves a high cost of setup, particularly for establishing Mother Stations.
- There are significant costs associated with fuel distribution and storage for CNG.
- The expenses for vehicles and conversion are elevated due to the need for expensive fuel tanks and conversion kits.
- CNG may face performance and operational issues compared to liquid fuels, including safety concerns.

Despite these challenges, ongoing infrastructure investments and supportive policies suggest a promising future for the CNG market, especially in transportation and industrial sectors. Sustained government commitment and private sector involvement will be crucial for accelerating market growth. Advances in CNG technology, such as improved compression and storage systems, promise enhanced fuel efficiency, safety, and reliability. Research and development to optimize CNG infrastructure and vehicle compatibility will boost market competitiveness. Collaboration among government agencies, energy companies, technology providers, and financial institutions will be vital for overcoming barriers to CNG development.

CNG's role in reducing emissions and mitigating environmental pollution aligns with global sustainability goals and climate change efforts. Positioning CNG as a clean and sustainable energy solution will enhance its appeal and acceptance among businesses and consumers.

The development of CNG offers Nigeria a strategic opportunity to leverage its natural gas reserves, enhance energy security, and drive economic growth. By addressing infrastructure limitations, improving regulatory frameworks, and promoting industry collaboration, Nigeria can fully realize CNG's potential as a central component of its energy transition strategy, contributing to a cleaner and more sustainable future.

9.2 Liquified Natural Gas (LNG) and Pipeline Natural Gas (PNG)

In 2024, Nigeria is advancing its liquefied natural gas (LNG) and pipeline natural gas (PNG) sectors with several significant developments aimed at boosting its gas export capabilities and enhancing energy security.

Nigeria LNG Limited (NLNG) is making notable progress with its Train 7 Project, which is set to increase the capacity of its existing six-train plant from 22 million tonnes per annum (mtpa) to 30 mtpa. This expansion is expected to strengthen Nigeria's position in the global LNG market and support the country's economic growth **(Nigeria LNG).**

In addition to expanding the onshore LNG facilities, Nigeria is also moving forward with offshore LNG production. The Nigerian National Petroleum Corporation (NNPC) has signed agreements with Golar LNG for the potential deployment of floating LNG (FLNG) facilities. These floating units are designed to exploit Nigeria's vast gas resources more effectively, and the first deployment could occur after the end of the Hilli FLNG vessel's current contract in Cameroon around mid-2026. **(S&P GLOBAL)**

Moreover, NNPC has taken a 20% stake in UTM offshore FLNG project, which aims to produce 1.5 mtpa by processing associated gas from the OML 104 block. This project underscores Nigeria's commitment to utilizing its gas resources for both domestic use and export, with the final investment decision expected by the end of 2024. **(S&P GLOBAL)**

The Ajaokuta-Kaduna -Kano Gas pipeline is a $2.8b, 614-kilometre project billed to be completed hopefully in July-August 2024 is also worthy of mention. It feeds into the Trans Nigeria Gas pipeline project and is a boost to our Gas Initiatives.

The AHL Gas Processing Plant, ANOH Gas processing plant and the 23.3-kilometre ANOH to Obiafu -Obrikom - Oben (OB3) Custody Transfer Metering Station Gas Pipeline recently launched by the President all have the potential to boost the country's gas supply by 20-25 % when fully operational (according to a report by offshore technology).

These initiatives are part of Nigeria's broader "Decade of Gas" strategy, launched in 2021, which aims to fully develop the country's estimated 203 trillion cubic feet (Tcf) of proven gas reserves and potentially unlock up to 600 Tcf of unproven resources. This comprehensive plan is designed to drive economic development and energy security by leveraging Nigeria's substantial gas deposits. (**S&P Global) (Nigeria LNG)**

9.3 Renewable Energy Sources

Solar Power:

As of 2021, over 85 million Nigerians lacked access to electricity; businesses and households with access to the national grid have faced unreliable and insufficient supply, a gap often filled with power from petrol and diesel-run generator sets that are costly and highly polluting to people and the environment. Nigeria receives abundant sunlight throughout the year, making solar power a particularly promising renewable energy source. There has been significant investment in solar projects, including utility-scale solar farms and distributed solar installations for residential, commercial, and industrial use. Government initiatives such as the Solar Power Naija program aim to accelerate the deployment of solar energy infrastructure across the country. The Rural Electrification Agency is also at the heart of providing solar Energy to homes and areas where power is unavailable in conjunction with the Ministry of Power and sustainable energy for all.

Solar energy works by converting sunlight into electricity using solar panels and battery storage through an inverter system.

However, despite Nigeria's promising condition for the use of solar energy, they fail to utilize these advantages for the development of solar power, Compared to neighbouring countries. When talking about output, Nigeria is ranked 16th in Africa for solar power capacity produced in (MW), with only 70MW produced, as shown on the table below.

No	Countries	Energy in MW	Regions
1	South Africa	6,326	Southern
2	Egypt	1,724	Northern
3	Morocco	858	Northern
4	Algeria	460	Northern
5	Kenya	307	Eastern
6	Senegal	263	Western
7	Tunisia	200	Northern
8	Namibia	176	Southern
9	Malawi 21	140	Eastern
10	Sudan	140	Northern
11	Ghana	110	Western
12	Mauritius 21	110	Eastern
13	Zambia	100	Southern
14	Mauritania 21	90	Western
15	Uganda	90	Eastern
16	Nigeria	70	Western
17	Burkina Faso 21	60	Western
18	Mali 21	60	Western
19	Mozambique 21	60	Eastern
20	Togo	30	Western

SOURCE: Foundation for Investigative Journalism

Advantages of solar energy

- Solar energy reduces power bills by providing a renewable and cost-effective source of electricity.
- It is easy to replenish since the sun is readily available, ensuring a consistent and sustainable energy supply.
- Solar energy decreases the use of non-renewable resources and reduces greenhouse gas (GHG) emissions, contributing to environmental conservation.
- It has diverse uses, ranging from residential and commercial electricity generation to powering remote areas and off-grid applications.
- Solar energy benefits the community by creating jobs, reducing energy costs, and supporting local economies.
- It promotes energy independence by reducing reliance on imported fossil fuels and enhancing energy security.

Disadvantages of solar energy

- Solar energy is sunlight dependent, meaning its efficiency can be significantly reduced on cloudy days or during nighttime.
- Space constraints can limit the installation of solar panels, especially in densely populated or urban areas.
- The high upfront costs for purchasing and installing solar panels and related equipment can be a financial barrier for many individuals and businesses.
- There is a scarcity of materials and a lack of backward integration, which can affect the supply chain and increase costs for solar energy systems.

Biofuel

Biofuel and biogas are traditional sources of energy in rural areas of Nigeria, primarily for cooking. Efforts to modernize biofuel energy production, such as using more efficient stoves and promoting sustainable biomass feedstocks, can help improve energy access and reduce deforestation. Biogas projects, utilizing organic waste from agriculture and livestock farming, also offer opportunities for decentralized renewable energy generation. However, there is hesitance due to the question of food vs fuel source.

Advantages of Biofuel

- Biofuels offer renewability, as they are produced from biomass and other renewable organic materials, ensuring a sustainable energy source.
- They help combat global warming by reducing greenhouse gas emissions compared to fossil fuels.
- Biofuels are easy to source, as they can be produced from a variety of feedstocks, including agricultural crops, waste materials, and algae.
- They provide economic benefits by creating jobs, supporting local agriculture, and reducing dependency on imported fossil fuels.

(Hydrocarbon energy sources are not available in every country, thus many countries around the world are reliant on importing oil and gas products. The importation cost can be offset by the adoption of biofuels, thus aiding economic independence whilst reducing the reliance on foreign oil and gas.)

Disadvantages of biofuels

- The production of biofuels can lead to a food vs. fuel dilemma, as agricultural land and crops may be diverted from food production to fuel production.
- Regional sustainability can be a challenge, as the environmental and economic benefits of biofuels vary depending on local conditions and practices.
- Biofuel production can contribute to deforestation, leading to loss of biodiversity and negative impacts on ecosystems.
- There is high variation in the quality of biofuels, which can affect engine performance and emissions.

Ethanol

Ethanol development in Nigeria is gaining traction as the country seeks to diversify its energy sources and reduce its dependency on fossil fuels. Nigeria's primary feedstocks for ethanol production are cassava and sugarcane. The country has a large agricultural base that can support the cultivation of these crops.

Advantages of Ethanol

- Renewable resource: Ethanol is produced from biomass, such as corn, sugarcane, and other plant materials. This makes it a renewable resource, unlike fossil fuels.
- Reduction in greenhouse gas emissions: Burning ethanol produces fewer greenhouse gases compared to gasoline. Ethanol combustion releases carbon dioxide that was previously absorbed by plants, creating a more balanced carbon cycle.
- Decreased dependency on fossil fuels: Using ethanol can reduce the reliance on imported oil, enhancing energy security and economic stability.
- Biodegradability: Ethanol is biodegradable and less toxic than gasoline, reducing environmental hazards in case of spills.
- High octane rating: Ethanol has a higher-octane rating than gasoline, which can improve engine performance and reduce knocking.

- Energy content: Ethanol contains about 33% less energy per gallon than gasoline, resulting in lower fuel efficiency and requiring more frequent refueling.
- Food Insecurity: This presents a major impediment especially as food sufficiency has been hampered for a while as a result of insecurity and poor crop yield over time.
- Production costs and resource use: Producing ethanol can be expensive and resource-intensive, requiring significant amounts of water, land, and energy, potentially leading to competition with food production. Therefore, there is a food vs fuel dilemma. Due to deforestation and ethanol production coming from feedstock we ask ourselves what is more important? Although ethanol is cleaner burning, the cultivation of crops for ethanol can lead to deforestation, habitat destruction, and increased use of fertilizers and pesticides, which can harm ecosystems.
- Engine compatibility: Higher concentrations of ethanol can be corrosive to certain materials used in engines and fuel systems. Vehicles must be specifically designed or modified to run on high-ethanol blends like e85 (85% ethanol, 15% gasoline).
- Economic viability: the economics of ethanol production can be volatile, influenced by agricultural yields, policy incentives, and fluctuations in oil prices. Without subsidies, ethanol may not always be cost-competitive with gasoline.

2

Regional Opportunities

2.0. GLOBAL ECONOMIC DEVELOPMENTS IN AFRICA (2023)

	COUNTRIES	POPULATION	GDP (USD BILLION)	UNEMPLOYMENT RATE (%)
1	Nigeria	223,804,632	473.0	5.0
2	Ethiopia	126,527,060	127.0	18.9
3	Egypt	112,716,598	477.0	6.7
4	DR Congo	102,262,808	15.8	21.8
5	Tanzania	67,438,106	75.7	8.9
6	South Africa	60,414,495	405.0	32.9
7	Kenya	55,100,586	113.0	4.9
8	Sudan	48,109,006	51.7	20.8
9	Uganda	48,582,334	45.6	2.9
10	Algeria	45,606,480	240.0	11.6
11	Morocco	37,840,044	131.0	13.7
12	Angola	36,684,202	84.7	31.9
13	Ghana	34,121,985	76.4	3.6
14	Mozambique	33,897,354	18.4	3.7
15	Madagascar	30,325,732	15.3	1.8
16	Cote D'Ivoire	28,873,034	70.0	2.6
17	Cameroon	28,647,293	48.0	3.7
18	Niger	27,202,843	15.3	0.5
19	Mali	23,293,698	18.8	3.3
20	Burkina Faso	23,251,485	20.3	5.0

SOURCES: Tradingeconomics.com and Worldometer

3

Industry Players

3.0. INDUSTRY PLAYERS

Major Players

11 PLC

11 plc is the exclusive authorized distributor to blend, pack, distribute and market Mobil branded lubricants in Nigeria.

In 1951, the company became a limited liability company with a change in name from Socony vacuum to Mobil oil Nigeria limited. Twenty-seven years later in 1978, the company became a publicly quoted company and assumed the name Mobil oil Nigeria plc. In October 2016, NIPCO investment company acquired 60% shareholding of ExxonMobil and in pursuant of a special resolution passed at her annual general meeting in May 2017, changed its name from Mobil oil Nigeria plc to 11 plc (pronounced double one).

Stations
252 stations nationwide

Tank Farms/ Capacity
The company displays four massive storage tanks for white products. Three of the tanks have a capacity of 45 million litres for petrol and one has a capacity of 21 million litres for aviation fuel.

The company said it has completed a massive turnaround at the lubricant manufacturing plant, increasing production capacity from 11,000 barrels per month to 26,000 barrels per month.
"We are expanding our LPG filling plants across the country, and its storage capacity has already been increased to 8,000 metric tons,

ARDOVA PLC

In 2019, the company underwent a name change to Ardova Plc (AP). Ardova Plc is a leading Nigerian indigenous and integrated energy company involved in the distribution of petroleum products. With an extensive network of retail outlets across Nigeria and significant storage facilities in Apapa, Lagos, and Onne, Rivers State, the company procures and distributes petrol (PMS), diesel (AGO), kerosene (DPK), and liquefied petroleum gas (LPG).

Ardova Plc also manufactures and distributes a wide range of quality lubricants from its oil blending plant in Apapa, Lagos. These lubricants include Super V, Viscos 2000, and Diesel Motor Oil. Additionally, Ardova Plc is the sole authorized distributor of Shell engine oils and lubricants in Nigeria.

Stations
365 stations nationwide

Tank farms/ Capacity
Ardova plc is currently developing a state-of-the-art coastal LPG storage facility with a capacity of 20,000 MT, situated on 8.8 hectares of land. This facility includes a Propane-Butane Blending and Processing capability. The AP LPG terminal in Ijora is regarded as the largest propane-rated LPG terminal in West Africa. The facility is expected to have an aggregate throughput capacity of 400,000 MT per annum.

CONOIL PLC

Conoil Plc is a Nigerian petroleum marketing company involved in the sale of regulated gasoline and kerosene diesel, aviation fuel and low pour fuel. Their mission is to remain the industry's flagship, offering world-class products and services. Whilst envisioning to be Africa's leading petroleum marketing company. They currently have multiple stations around Nigeria offering different products to customers.

Stations
310 stations nationwide.

Tank Farms
Apapa Hub Storage

- PMS – 33,350,346 MT
- ATK – 16,319,253 MT
- AGO – 33,983,048 MT
- DPK – 2,458,532 MT

MRS OIL NIGERIA PLC

The company started marketing of petroleum products in Nigeria in 1913 under the Texaco brand name.
Following the creation of ChevronTexaco in 2001 from the merger between chevron corporation and former Texaco Inc., Texaco Nigeria plc became an integral part of the new corporation. As ChevronTexaco considered the acquisition of former Unocal, the board of ChevronTexaco decided to drop 'Texaco' and retain only chevron as the new name of the enlarged corporation.
Effective September 1, 2006, the company's name changed from Texaco Nigeria plc to Chevron Oil Nigeria plc.
Early in 2009, in efforts to continue to grow and expand our business, MRS concluded a high-profile acquisition of chevron downstream assets in Nigeria
.

Stations
160 stations nationwide

Tank Farms / Capacity

- 15 million litre/day loading capacity Terminal at TinCan, Lagos
- 2 million litre/day Fuel Terminal at Apapa Lagos
- Storage – 150 million litres
- Jetty – 400 million LOA and 12 million Draft
- Isolo Truck Staging Area for more than 1000 trucks
- Lubricant blending and packaging plant
- Modern aviation jet facilities in Lagos, Abuja

NNPC RETAIL LIMITED

NNPC Limited, a dynamic global energy company, which operates across the entire spectrum of the energy value chain. It plays a critical role as an agent of the Nigerian National Petroleum Corporation (NNPC), managing the process of winding down NNPC's assets, interests, and liabilities.

The history of NNPC Limited dates to the discovery of oil in commercial quantities at Oloibiri, Bayelsa state, in 1956. This significant event eventually led to the establishment of the Nigerian National Oil Corporation (NNOC) in 1971, marking the formation of Nigeria's national oil company. The same year, Nigeria joined the Organization of the Petroleum Exporting Countries (OPEC) as its tenth member, signifying its growing influence in the global oil industry.

A pivotal moment in the company's evolution occurred when NNOC merged with the federal ministry of mines and power, combining operational functions and regulatory responsibilities to form the Nigerian National Petroleum Corporation (NNPC) in 1977. This entity made substantial progress in various aspects of the petroleum industry over the years.

The signing of the Petroleum Industry Act (PIA 2021) marked another significant transformation. This comprehensive legislation restructured the Nigerian oil and gas sector, leading to the creation of NNPC Limited. Incorporated as a limited liability company, NNPC Limited is now empowered to operate in different sectors of the global energy industry and pursue commercially viable ventures that ensure value for all its stakeholders.

In its current form, NNPC Limited is not just confined to traditional oil and gas activities but is also poised to explore and expand into other areas of the energy sector. This strategic flexibility allows NNPC Limited to adapt to the evolving global energy landscape, ensuring its continued relevance and contribution to Nigeria's economy and beyond.

Stations
915 stations nationwide

Tank Farms / Capacity
2.1 billion litres of storage

TOTALENERGIES MARKETING NIGERIA PLC

TotalEnergies

TotalEnergies Marketing Nigeria plc has remained the leader in the downstream sector of the Nigerian oil and gas industry with an extensive distribution network of service stations nationwide.
TotalEnergies was ranked as the world's leading solar developer in 2023. With a portfolio representing a total capacity of 41.3 gigawatts (GW) in 2023, including 12 GW already in operation, TotalEnergies is a major player in the solar power market.

Stations
522 stations nationwide

Tank Farms/Capacity
The company and its joint venture partner, NNPC, operate over 90 offshore platforms comprising of about 300 producing wells at a capacity of over 550 thousand barrels a day of crude, condensate and natural gas liquids (NGL).

KEY PLAYERS - SOURCE: *Individual Company's Website*

AA RANO NIGERIA LIMITED

AA Rano Nigeria Limited is a Nigerian Indigenous Oil and Gas Company. They commenced petroleum product marketing and distribution in 1994, with its headquarters in Kano, Nigeria. They were Fully incorporated as AA Rano Nigeria Limited in 2002, the company and its subsidiaries operate across the oil and gas industry, including exploration, production, refining, distribution, marketing, trading, and logistics.

Subsidiaries

- AA Rano Oil
- AA Rano Terminal
- Rano Air
- Lausu Maritime and Logistics
- Rano Gaz
- Rano Rice Mill
- Rano Lubricant
- Rano Agro Chemicals
- AA Rano Haulage

Tank Farms

- One 60 million litres tank farm in Lagos.
- LPG terminal in Lagos

Retail Outlets

Over 100 filling stations across Nigeria.

AITEO GROUP

Founded in 1999, the company operated under the name Sigmund Communnecci Limited. The company name was changed to Aiteo during a rebranding exercise. Since its inception, Aiteo has been a trail blazer in the petroleum sector, helping to grow the downstream petroleum sector and providing constant availability of high-quality refined products worldwide. Today, Aiteo is a full-spectrum, integrated energy company with services that span bulk petroleum products storage, marketing and distribution of refined petroleum products, oilfield services, electricity generation and distribution, LPG bulk storage and a fast-developing retail distribution network.

Subsidiaries

- Aiteo Exploration and Production
- Aiteo Gas
- Aiteo Power
- Aiteo Trading
- Aiteo Marketing

Tank Farms

- Approximately 210 million litres storage terminal in Apapa, Lagos.
- 110 million litres storage terminal in Port-Harcourt, Rivers.

AXXELA GROUP

Founded with a vision to address Nigeria's energy needs, Axxela Group has rapidly grown into a key player, offering innovative solutions across the entire energy value chain. As an indigenous company, Axxela Group has carved a niche for itself by leveraging local expertise and resources to contribute significantly to the country's energy landscape.

AYM SHAFA HOLDINGS LIMITED

AYM Shafa Holdings Limited is a leading indigenous petroleum marketing company in Nigeria. Established in 1996, the company has a fleet of over 700 trucks. They provide a range of services including petroleum products retailing, logistics, LPG operations, and terminal operations. The company has a significant presence in the LPG market, with an 11,150 cubic meters LPG terminal. They also operate a 60 million litres petroleum depot in Warri, licensed by the NMDPRA to store and distribute white petroleum products.

Subsidiaries

- Shafa Energy Limited
- AYM Shafa Motors
- Abdulmu'unin Educational Foundation
- Nanman Nigeria Oil Company Limited
- Yankari Oil Nigeria Company Limited

Tank Farms

One 60 million litres petroleum depot in Warri.

Retail Outlets

Over 150 filling stations nationwide.

BOVAS GROUP

BOVAS Group was established in 1980 and started operations as an indigenous independent petroleum marketing company. They opened their first service station in Oshogbo, Osun State, Nigeria, in 1991. BOVAS group engages in the marketing and distribution of petroleum products, including PMS, AGO, DPK, and lubricants.

Tank Farms

- Two Depots in Lagos state.
- One Lubes plant in Ogun state.
- One LPG plant in Oyo state.
- One ATK terminal in Oyo state

Retail Outlets

Over 185 filling stations across Nigeria

EMADEB ENERGY SERVICES LIMITED

EMADEB Energy is a leading indigenous oil and gas company playing key roles in every sphere of the industry value chain, delivering value to its clients and other stakeholders, with a focus on sustainable growth and future development.

Subsidiaries
Ibom Upstream Company Limited

Tank Farms
60 million litre state-of-the-art-tank farm located at Ijegun-Egba, Amuwo Odofin area of Lagos state.

GREEN ENERGY INTERNATIONAL LIMITED

Green Energy International Ltd (GEIL) stands out as a notable player in Nigeria's energy sector, particularly in oil and natural gas exploration and production. Despite its focus on conventional energy sources, GEIL has demonstrated a commitment to sustainable practices. While primarily known for its oil and gas operations, GEIL has shown a growing interest in incorporating green energy initiatives into its portfolio.

LEKOIL NIGERIA LIMITED

Lekoil Nigeria Limited is a leading energy company in Nigeria that has been at the forefront of driving sustainable growth in the industry. With a diverse portfolio of oil and gas assets, Lekoil has made significant contributions to Nigeria's energy sector. Established in 2010, the company has rapidly grown to become one of the key energy companies in Nigeria. Lekoil has successfully executed exploration and development projects, contributing to the country's overall oil production.

MASTERS ENERGY OIL & GAS LIMITED

Masters Energy Oil and Gas Ltd is fully integrated and efficient midstream and downstream player with leading positions in the Nigerian Oil & Gas Industry. Masters Energy Oil and Gas Ltd was incorporated in Nigeria in 2005 to operate fully in the oil and gas sector. Being a highly innovative company, and desirous to create superior values for stakeholders and partners, the company continues to break new ground and attain greater heights. They are an organization focused on improving our operating efficiencies in all areas of both midstream & downstream sectors where they currently operate.

Tank Farms
- 65MT LPG plant in Lagos
- 50MT LPG plant in Enugu
- 10,000MT lube plant at Mowe, Ogun State
- 26,000 MT ultra-modern Lube Oil Blending Plant located at Masters Energy Industrial City located at Uturu, Isikwuato Local Government Area of Abia State

MRS HOLDINGS COMPANY LIMITED

MRS is a Pan-African conglomerate of companies diversified in activities but focused on capturing the entire value chain in oil trading, shipping, storage, distribution and retailing of petroleum products. MRS, which was founded in 1995, commenced operations with MRS Transport Co. Ltd to bridge the gap in haulage of petroleum products to end users. Following the expansion of the haulage business, MRS Oil and Gas Co. Ltd was incorporated to purchase and distribute refined products from its storage facility in Tin Can. In 2004, MRS Holdings Limited was incorporated to oversee all the business segments of the group with its operational Headquarters in Lagos.

Subsidiaries

- MRS Oil Nigeria Plc.
- Corlay Benin SA.
- Corlay Cameroon SA.
- Corlay Togo SA.
- Corlay Cote D'Ivoire.

Tank Farms

In Nigeria

- 38,513 Barrels Base Oil storage at Apapa.
- A Lube blending plant at Apapa capable of producing 186,000 barrels per year.
- A 22,500 barrels per year grease plant.
- 5,100 barrels of additive storage at Apapa.
- A modern Avjet facility at Ikeja plus a yet to be completed aviation storage facility at Abuja.
- A warehouse complex at Alapere in Lagos and other warehouses across the entire country.
- A 2 million barrels per year fuels terminal.

In Benin

- Modern Avjet Facility.

In Benin

- Modern Lube Blending Plant.

Retail Outlets

- 586 retail outlets in Nigeria.
- 130 retail outlets in Cameroon.
- 45 retail outlets in Togo.
- 28 retail outlets in Benin Republic.
- 105 retail outlets in Cote D'Ivoire.

NIPCO PLC

NIPCO Plc is well known for distribution of White Oil products, CNG and LPG in Nigeria. NIPCO has also pioneered in setting new standards and introducing new products into the country. NIPCO Plc markets its products through strategic business units – NIPCO Retail, LPG and Nipcogas.

Subsidiaries

- Green Gas Limited (GGL)
- NIPCO E & P Limited
- NIPCO Retail
- NIPCO Gas Limited

Tank Farms

- One Terminal in Apapa, Lagos, with a capacity of 76 million litres.
- Recently, NIPCO commissioned 3 new storage tanks in the month of December 2015 to increase and upgrade the storage facility by an additional 30 million litres to improve the operational efficiency.

Retail Outlets

Currently, NIPCO has about 250 branded retail outlets spread across the country.

PINNACLE

Pinnacle is an Indigenous Oil and Gas Company active across the entire downstream value chain, with emphasis on the petroleum trading, marketing, distribution and retail segments of the Nigerian Oil and Gas Sector. The company was founded in 2004 with Head Quarters in Lagos, one of Africa's largest business hubs. Their performance within the sector has resulted in significant growth in market share and customers.

Tank Farms

Pinnacle has 32 branded retail outlets spread across the country.

RAINOIL LIMITED

Rainoil Limited is an integrated energy company and a prominent player in the Nigerian oil and gas industry, incorporated in November 1994 and commenced business as a petroleum products marketing company in May 1997. The Rainoil Group comprises business operations that span across the downstream value chain: Retail Sales, Bulk Storage, Logistics and Shipping Petroleum Product Storage, Haulage/Distribution, and Retail Sales. Our primary products include Petrol (PMS), Diesel (AGO), Kerosene (DPK), Liquefied Petroleum Gas (LPG), and Lubricants.

Subsidiaries

- Rainoil Gas
- Rainoil Logistics

Tank Farms

Three multi-product tank farms with a combined storage capacity of over 150 million litres, 50 million litres each in Delta, Cross River and Lagos state.

Retail Outlets

Over 160 retail outlets.

SEPLAT ENERGY

Seplat Energy is a prominent player in Nigeria's energy sector, renowned for its significant contributions to the country's oil and gas industry. Established in 2009, Seplat has swiftly grown into one of the leading indigenous exploration and production companies in Nigeria. One of Seplat's notable strengths lies in its operational efficiency and technological prowess, which enable it to maximize production while adhering to stringent safety and environmental standards. This has solidified its position as a reliable supplier of hydrocarbons to both domestic and international markets.

ZAMSON GROUP

Zamson Group represents a cluster of related businesses with strong commercial networks in Nigeria and beyond, offering high-quality petroleum products and services. They are major players in the downstream and midstream sectors of the oil and gas industry in Nigeria. The Group's roots stretch back to the early 2000s when the MD, Alhaji Zayyanu Musa Bashir started oil and gas trading in Lagos and Sokoto State. His strong business acumen and commercial instinct led to the evolution and expansion of the business from a small-scale oil & gas trading business to a diversified business conglomerate in about two decades.

Subsidiaries

- Zamson Global Resources Limited
- Zamson Transport Limited
- Zamson Oil and Gas Limited

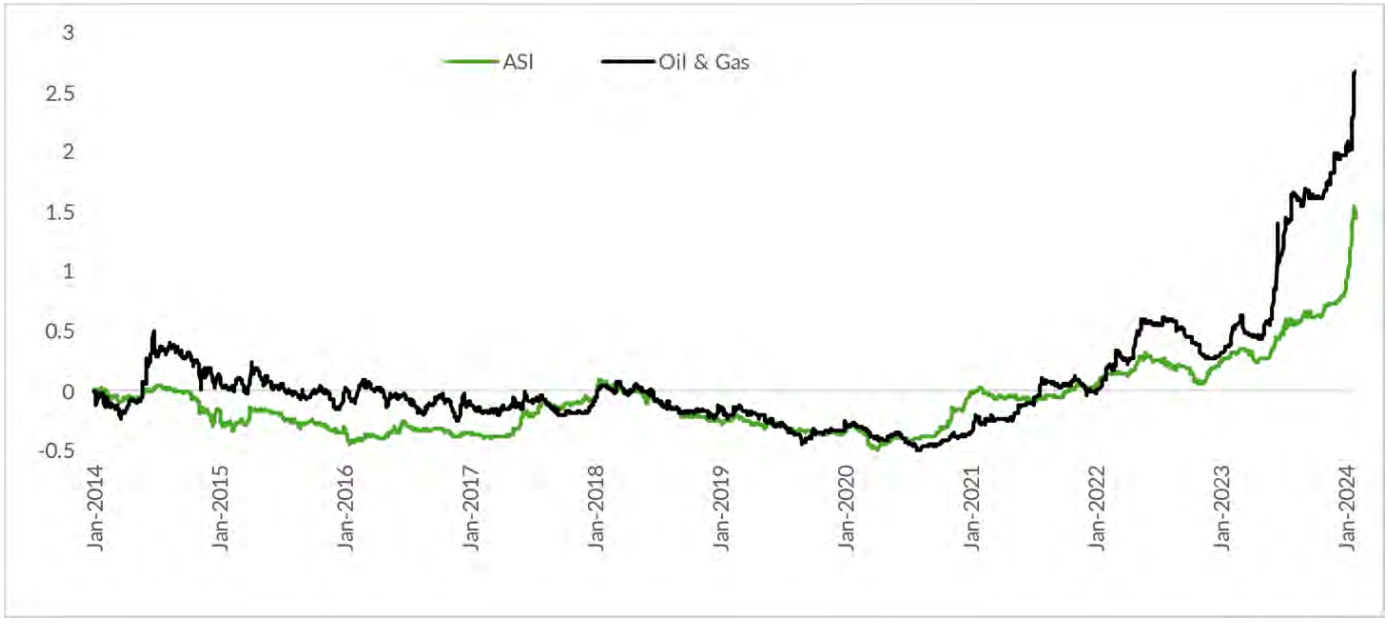
Tank Farms

- 50 million liters of storage capacity in Warri- North Local Government Area, Delta State.
- 40 million liters of storage capacity is on the verge of completion.

Retail Outlets

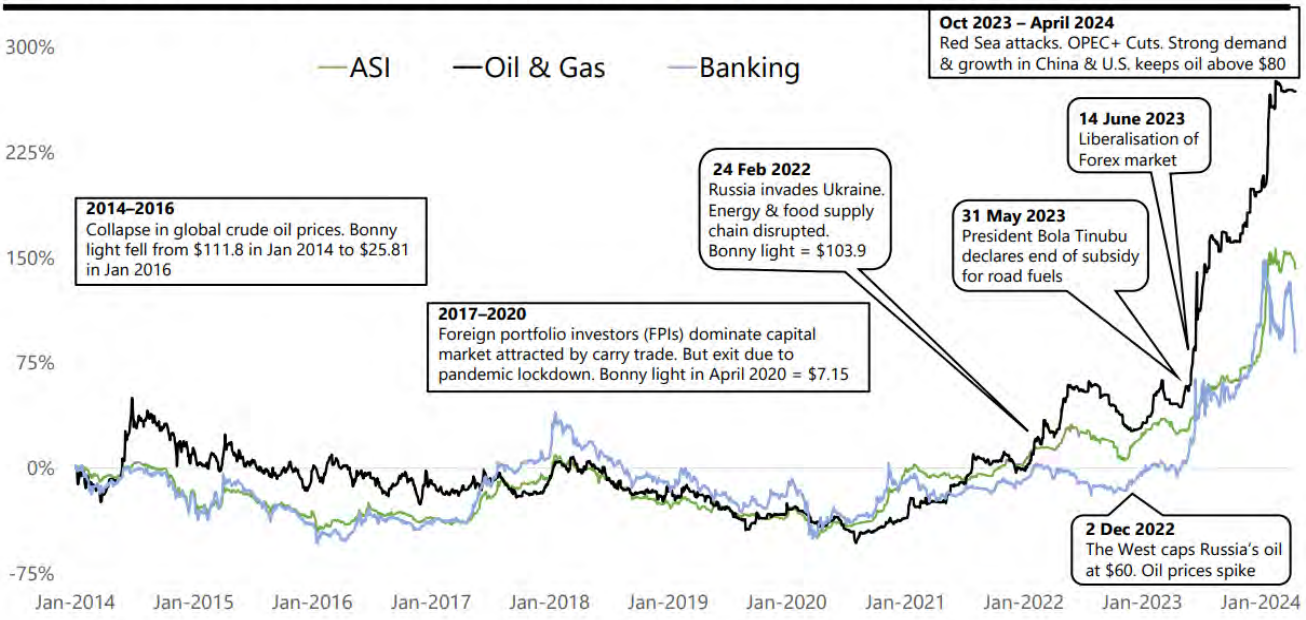
Over 30 retail outlets across Nigeria.

OIL AND GAS STOCK MARKET PERFORMANCE



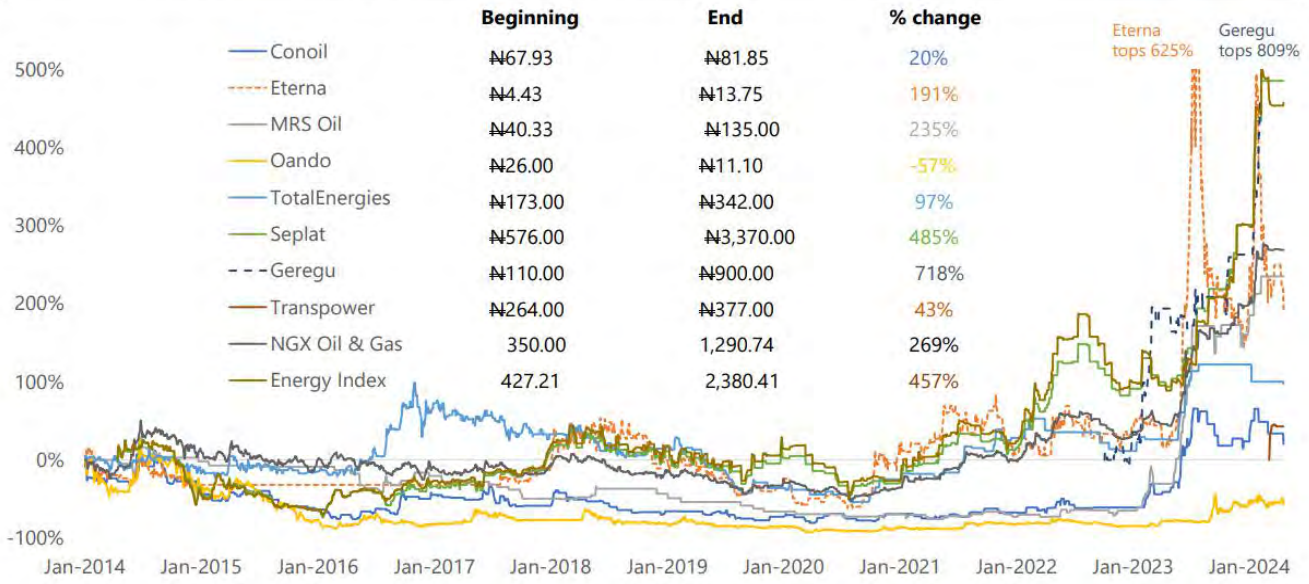
SOURCE: Nigerian Exchange Group (NGX)

Performance of the NGX All-Share Index (ASI) vs Select Indices



SOURCE: Nigerian Exchange Group (NGX)

Performance of Energy Companies on the NGX



	Beginning	End	% change
Conoil	₦67.93	₦81.85	20%
Eterna	₦4.43	₦13.75	191%
MRS Oil	₦40.33	₦135.00	235%
Oando	₦26.00	₦11.10	-57%
TotalEnergies	₦173.00	₦342.00	97%
Seplat	₦576.00	₦3,370.00	485%
Geregu	₦110.00	₦900.00	718%
Transpower	₦264.00	₦377.00	43%
NGX Oil & Gas	350.00	1,290.74	269%
Energy Index	427.21	2,380.41	457%

SOURCE: Nigerian Exchange Group (NGX)

S/N	Association	Description
1	MEMAN	Major Energies Marketers Association of Nigeria
		MOMAN plays a strategic role in the advancement and regulation of industry standards, addressing a range of common issues relating to the distribution and marketing of petroleum products.
		Address: 18 Bishop Kale Close, Off Kasumu Ekemode street, off Saka Tinubu Street, Victoria Island, Lagos. Nigeria. Phone: +234 201453 6155 Email: info@meman.org,ng Website: https://meman.org.ng/
2	DAPPMAN	Depot and Petroleum Products Marketers Association of Nigeria
		DAPPMAN is the umbrella association of 65+ fuel depot owners who commenced business from the storage end and are now active participants in all segments of the value chain of Nigeria's Downstream Petroleum sub-sector.
		Website: https://dappman.org.ng/ (currently being updated)
3	IPMAN	Independent Petroleum Marketers Association of Nigeria
		IPMAN is the umbrella body of indigenous petroleum marketers in Nigeria. The Association was established by a military decree in 1978 but was incorporated in December 1983. IPMAN member stations account for over 70% of the retail outlets nationwide.
		Email: info@ipman.ng Website: https://ipman.ng
4	PETROAN	Petroleum Products Retail Outlets Owners Association of Nigeria
		Petroleum Products Retail Outlets Owners Association of Nigeria (PETROAN) is a non for –profit and nonpolitical organization, aim to promote the welfare of her members and to promote Unity and Stability in the Petroleum Retail Sector to impact positively on the Petroleum Industry in Nigeria.
		National office: No 3 Jaba Close, Off Dunukofia Street, Area 11, Garki, FCT, Abuja. Secretariat: 34, Oginigba/Rumuobiakani Road, Trans-Amadi I/L, Port Harcourt Abuja Liaison Office: 5, Bilview Street, Off Liberty Road, Kubwa, Abuja. Email: info@petroan.com, Website: https://petroan.com/
5	NGA	Nigerian Gas Association
		The Nigerian Gas Association (NGA) is the apex organization representing the varied and numerous stakeholders in the gas sector within the Nigerian oil and gas industry.
		Address: Block 98, Plot 3A, Mike Adegbite Avenue, Lekki Phase 1, Lagos, Nigeria. Phone: +(234) 802 339 8312 Email: info@nigeriangasassociation.org.ng Website: https://www.nigeriangasassociation.org.ng/
6	NLPGA	Nigeria Liquefied Petroleum Gas Association
		The Nigeria LP Gas Association is the umbrella body of all Stakeholders in the LP Gas sector in Nigeria. The primary objective of the Association is to promote the use of LP Gas in Nigeria at affordable costs.
		Phone: +234 817 031 2909 Email: info@nigerialpgas.com Address: Lindev Plaza (3rd Floor), 16 Amodu Ojikutu Street, V.I, Lagos. Website: https://nigerialpgas.com/home

7	PEDAN	Petroleum Dealers Association of Nigeria
		The Petroleum Dealers Association of Nigeria incorporated was established in March 1987 to cater for the economic and social wellbeing of its members who are engaged in the sales and distribution of all petroleum products in Nigeria. It also engages, work with and collaborate with all trade unions in the downstream sector of the petroleum industry in Nigeria most especially NUPENG, PTD/NUPENG and PSW/PTD/NUPENG.
		Address: No. 25b IBM Haruna Street, Utako, Abuja. Phone: +2348033148331 Website: https://pedan.org/
8	PETAN	Petroleum Technology Association of Nigeria
		Petroleum Technology Association of Nigeria (PETAN) is an association of Nigerian Indigenous Technical Oilfield service companies in the upstream and downstream sectors of the Oil industry. The association was formed to bring together Nigerian Oil & Gas entrepreneurs to create a forum for the exchange of ideas with the major operators and policymakers.
		Address: Plot 270 Trans-Amadi Industrial Layout P.O. Box 6726, Port Harcourt. Email: secretariat@petan.org Phone: +234 7059992225 Website: https://www.petan.org/
9	NOGASA	Natural Oil and Gas Suppliers Association of Nigeria
		The Natural Oil and Gas Suppliers Association of Nigeria (NOGASA) is a premiere organization of legitimate, organized, and proficient suppliers, stakeholders and practitioners in the nation's oil and gas sector distribution service chain. The Association offers a comprehensive, mutually benefiting interactive and informative network for bonafide suppliers, marketers, distributors, and other related enterprises in the sector's business environment.
		Address: 6, Umaru Dikko Crescent, Jabi, Garki District, Abuja. Phone: 07063499283, 09096737310 E-mail address: nogasahqn@yahoo.com | info@nogasa.org Website: https://nogasa.org/
10	REAN	Renewable Energy Association of Nigeria
		The Renewable Energy Association of Nigeria (REAN) is an independent, non-profit Industry association founded by stakeholders in the Renewable Energy sector in Nigeria. The Mission of the Association is "to be the umbrella association for all Renewable Energy promoters enabling and encouraging the sustainable development of the Nigerian economy through Renewable Energy".
		13 Lumumbashi Street, Abacha Estate. Wuse 904101, Zone 4, Abuja. Phone: +2347010891110 Email: info@rean.org.ng Website: https://rean.org.ng/
11	SEPAN	Sustainable Energy Practitioners Association of Nigeria
		Sustainable Energy Practitioners Association Nigeria (SEPAN) is a non-profit, non-partisan, organization devoted to boosting access to clean energy services by ensuring its sustainable growth in Nigeria's energy mix and creating a level field for investors in the sector.
		Address: Plot 593 Samaila Gwarzo Street, Cadastral Zone A, Guzape Abuja Nigeria Phone: +234 80370 35439| Email: info@sepan.org.ng Website: https://sepan.org.ng/

12	NALPGAM	Nigerian Association of Liquefied Petroleum Gas Marketers
		The association is made up of indigenous private companies with operating gas bottling plants, licensed by the Department of Petroleum Resources (DPR) for the sale and storage of LP Gas nationwide. The association also sponsor the Retailers for the purpose of licensing by DPR who the nearest level to the consumers in the value chain of LPG distribution and marketing.
		Address: NALPGAM House, 5, Unity Road. Off Toyin Street. Ikeja. Lagos, Nigeria. Telephone: +234 8025113299, 09155792774 Email: Info@Nalpgam-Ng.Com, Externalrelations@Nalpgam-Ng.Com Website: https://www.nalpgam-ng.com/
13	NAEE	Nigerian Association for Energy Economics
		The Nigerian Association for Energy Economics (NAEE) is the Nigerian Affiliate of the International Association for Energy Economics (IAEE) with a presence in over 70 countries all over the world. The Association is a nationwide non-profit organization of business, academic and other professionals that advances the understanding and application of economics across all facets of energy development and use, including theory, Business, Public policy, and Environmental consideration.
		Address: 7, Parry Road, University of Ibadan, Oyo State, Nigeria. Phone: +2347068811494 Email: admin@naee.org.ng Website: https://www.naee.org.ng/
14	ALDG	Association of Local Distributors of Gas
		ALDG was established in February 2020 to promote all activities within the Natural Gas distribution value chain, to encourage the development of Natural Gas distribution business in Nigeria; and to promote the safe transmission, distribution, and utilization of Natural Gas.
		Phone: +234 908 170 7777 Email: admin@aldg.org.ng Website: https://aldg.org.ng/ Address: 8th floor, Wings Complex, East Tower, 17A Ozumba Mbadiwe Avenue Victoria Island, Lagos
15	REEEA-A	Renewable Energy and Energy Efficiency Associations Alliance
		REEEA-A was officially registered in September 2020 by its founding members the Association of Energy Engineers (AEE), the Council for Renewable Energy of Nigeria (CREN), Renewable Energy Association of Nigeria (REAN), the Renewable and Alternative Energy Society of Nigeria (RAESON), and the Sustainable Energy Practitioners Association of Nigeria (SEPAN). Soon after the foundation the Women in Renewable Energies Association (WIRE-A) joined the Alliance. Since its establishment, the REEEA Alliance has set-up a professional structure for governance and management of the Alliance. Since its foundation, the Alliance has established itself as in important voice of the sector representing common interests of its members in various committees and events and fosters networking within the sector and forms partnerships to improve framework conditions for the energy transition process.

		Website: https://reeeaa.org.ng/ Address: No 22, I.T Igbani Street, off Obafemi Awolowo Way, Jabi District, Abuja, Nigeria. Email: info@reeeaa.org.ng Phone: +234 803 200 2375
16	PLAN	Pipeline Professionals' Association of Nigeria
		PLAN's Mission is: • To make pipeline issues visible to all stakeholders and thus to ensure safe installation and operating practices. • To be known as a Centre of excellence throughout the region • To promote local content in all pipelines matters where feasible
		Website: https://plan-ng.com/ LinkedIn: https://ng.linkedin.com/company/pipeline-professionals-association-of-nigeria Address: Plot 141 Trans Amadi Industrial Layout, Port Harcourt. Email: info@plan-ng.com, planngco@gmail.com, Phone: +234(0)7061643086
17	NUPENG	Nigeria Union of Petroleum and Natural Gas Workers
		The Nigeria Union of Petroleum and Natural Gas Workers (NUPENG) is one of the 46 industrial unions formerly affiliated to the Nigeria Labour Congress. NUPENG was formally registered as a Trade Union on 15th August 1978 but held its inaugural conference on 2nd November 1977 at the cultural center Benin City, Edo State. NUPENG is currently affiliated to the United Labour Congress of Nigeria (ULC).
		Address: National Secretariat 9, Jibowu Street, Yaba, Lagos. Email: headoffice@nupeng.com Website: http://www.nupeng.org Phone: +234 1 8770277
18	OGTAN	Oil and Gas Trainers Association of Nigeria
		The Oil and Gas Trainers Association of Nigeria (OGTAN) was formed with the support of the Nigerian Content Division of the Nigerian National Petroleum Corporation to address the manpower development needs of the Nigerian Oil and Gas industry.
		Address: 77 Ademola Street, off Awolowo Road, Ikoyi, Lagos. Email: info@ogtan.org.ng Website: http://www.ogtan.org.ng LinkedIn: Oil and Gas Trainers Association of Nigeria (OGTAN) | LinkedIn Phone: +234 7046204787, +234 817 613 8873
19	NARTO	Nigerian Association of Road Transport Owners
		NARTO is the umbrella organization of all commercial vehicles owners in Nigeria engaged in the haulage of Petroleum Products, General Cargoes, and movement of passengers, within the Country and the entire West-Africa sub-region
		Website: https://narto.org/ LinkedIn: https://ng.linkedin.com/in/narto-nig-association-of-rd-transport-owners-83120981 Address: 460, Joseph Adetoro St, Utako District, Abuja FCT, Nigeria. Email: info@narto.org Phone: (234) 8126725505

4

About MEMAN

Rebranding MOMAN to MEMAN

The transition from the Major Oil Marketers Association of Nigeria (MOMAN) to the Major Energies Marketers Association of Nigeria (MEMAN) reflects a significant strategic shift in response to the evolving global energy landscape as well as steps to a just energy transition. This change is driven by several key factors related to energy sustainability such as a global transition, environmental benefit, and the opportunity to lead the industry in the transition to more sustainable energy.

The global energy sector is undergoing a profound transformation, with a strong emphasis on reducing carbon emissions and promoting renewable energy sources. As countries worldwide set ambitious targets to achieve net-zero emissions by mid-century, there is a growing need for energy companies to diversify their portfolios. By rebranding and broadening their scope, MEMAN signals its commitment to aligning with these global trends and contributing to a sustainable energy future. This has encouraged a different outlook within the market resulting in traditional oil and gas companies, investing in alternative energy sources such as solar, and biofuels. This diversification is crucial for reducing dependency on fossil fuels and ensuring long-term business viability. MEMAN's new identity reflects a broader focus on various forms of energy, not just oil, which is essential for adapting to the changing market dynamics and consumer preferences. After presenting this idea with our members we can see a transition to sustainable energy development by MEMAN members. The energy sector is rapidly advancing with new technologies that improve efficiency and reduce environmental impact. MEMAN's transition indicates a strategic emphasis on innovation, incorporating advanced technologies such as energy storage, smart grids, and dual fuel vehicles infrastructure. This forward-looking approach is vital for staying competitive in the modern energy landscape.

MEMAN CHAIRMAN

Meet Huub Stokman, a dynamic and results-oriented business leader with over 30 years of professional experience, currently serving as the managing director of NNPC Retail Limited. Throughout his career, he has held various executive positions and proven himself to be a skilled and accomplished leader in the international downstream value chain, consistently delivering impressive bottom-line results.

Prior to his current appointment, Mr. Stokman served as the CEO of OVH Energy Marketing Limited, which was later acquired by NNPC Limited in 2022. He has also worked at puma energy international in Angola, where he oversaw the overall business operations, including retail forecourt management, terminal, and logistics operations, as well as b2b business for fuels, lubricants, aviation fuels, and bitumen. Before joining puma, he spent over two decades at bp, where he was responsible for sales and marketing, as well as major projects across 15 European countries.

Mr. Stokman holds a degree in business administration and management from Vrije Universiteit, Amsterdam, and completed an international executive program (IEP) at Insead. His educational background, coupled with his vast experience in the downstream oil and gas industry, has made him a widely respected and sought-after leader in the sector. Stokman's expertise and leadership have been invaluable to NNPC Retail Limited, and he remains a driving force behind the company's continued success.

In September 2023, he was appointed the chairman of the Major Energies Marketers Association of Nigeria (MEMAN).

COMPETENCY CENTRE

Introduction to the Competency Centre

The Competency Centre serves as a central hub for excellence, innovation, and strategic growth within the energy sector, with a focus on alternative energies such as gas (LPG and CNG), solar energy, and ethanol. It aims to enhance operational efficiency, foster research and development, and build robust partnerships to drive the evolution of the energy industry. This Centre provides cutting-edge solutions, training, and support to industry stakeholders, ensuring they are well-equipped to navigate the complexities of the global energy landscape.

1. **Training and Development:**
   The Competency Centre offers comprehensive training programs to develop the skills and knowledge of professionals within the energy sector. These programs cover a wide range of topics, including technical skills, regulatory compliance, safety protocols, and sustainability practices related to LPG, CNG, solar energy, and ethanol.
   Partnerships with academic institutions and industry experts enable the Centre to provide state-of-the-art training, ensuring that participants stay ahead of industry trends and technological advancements.
2. **Research and Innovation:**
   The Centre is a hub for research and innovation, promoting the development of new technologies and processes that enhance efficiency and reduce environmental impact.
   Collaborative research projects with universities, research institutions, and industry players are a cornerstone of the Centre's activities, driving forward the frontiers of knowledge in Nigeria's energy sector.
3. **Industry Support and Consultancy:**
   Offering consultancy services to energy companies, the Competency Centre provides expert advice on best practices, regulatory compliance, and strategic planning.
   Support services include project management, technical support, and process optimization, helping companies streamline operations and achieve their strategic goals within the market.
4. **Sustainability and Environmental Stewardship:**
   The Centre is dedicated to promoting sustainable practices within the Nigerian energy sector. This includes the development and implementation of renewable energy projects, energy efficiency initiatives, and environmental conservation programs.
   By focusing on sustainability, the Competency Centre helps ensure that Nigeria's energy sector contributes positively to environmental goals and climate change mitigation.

Strategic Importance

The Competency Centre is strategically positioned to address the current and future challenges of Nigeria's energy sector. Key strategic benefits include:

Capacity Building: By equipping energy professionals with the necessary skills and knowledge, the Centre helps to build a highly competent workforce that can drive the industry forward.
Innovation Driver: Through its research and development activities, the Centre fosters innovation, helping the energy industry to stay competitive and responsive to changing market dynamics.
Regulatory Compliance: The Centre provides essential support in navigating Nigeria's regulatory frameworks, ensuring that companies remain compliant with local and international standards.
Sustainable Development: By promoting sustainable practices, the Centre plays a critical role in aligning the energy sector with global environmental goals, thereby enhancing its long-term viability.

Knowledge Sharing and Community Engagement

1. **Workshops and Seminars:**
   The Competency Centre organizes regular workshops and seminars aimed at disseminating knowledge and best practices within energy sector. These events bring together industry professionals, academics, policymakers, and other stakeholders to share insights, discuss challenges, and explore opportunities.
   Topics covered in these events range from technical advancements and regulatory updates to sustainability initiatives and market trends in LPG, CNG, solar energy, and ethanol.
2. **Publications and Resources:**
   The Centre produces a wide range of publications, including research reports, white papers, case studies, industry analyses, and of course the competency Centre series, a recurring content series focused on educating the public about alternative energies. These resources provide valuable insights into the latest developments and trends in alternative energies.
   An extensive library of books, journals, and digital resources is available to industry professionals, researchers, and students, supporting continuous learning and professional development.
3. **Online Platform:**
   The MEMAN website has been developed to facilitate knowledge sharing and collaboration among industry stakeholders. This website includes a repository of resources that can be accessed by registered members.
   The Competency Centre also hosts webinars and virtual events, enabling broader participation and engagement from individuals and organizations across Nigeria and globally.

Collaboration and Networking

1. **Industry Partnerships:**
   The Competency Centre actively seeks to build partnerships with leading energy companies, research institutions, and industry associations. These partnerships enable the Centre to leverage a wide range of expertise and resources, enhancing its capacity to deliver high-quality training, research, and consultancy services.
   The Competency Centre's partners include:

NNPC Retail Limited · argus · energy institute · Interswitch · U.S. GRAINS COUNCIL · VIISAUS

2. **Stakeholder Engagement:**

   Effective stakeholder engagement is a key priority for the Competency Centre. This involves regular communication and collaboration with a diverse range of stakeholders, including government agencies, regulatory bodies, industry associations, community groups, and advocacy organizations in Nigeria.

   Stakeholder engagement activities include consultations, workshops, and public forums aimed at gathering input, sharing information, and building consensus on key issues affecting the energy sector.

3. **Networking Opportunities:**

   The Competency Centre provides numerous opportunities for networking and collaboration among industry professionals. These include networking events and industry conferences focused on specific areas of Nigeria's energy sector.

   By fostering a strong network of professionals, the Centre helps facilitate the exchange of ideas, the sharing of best practices, and the development of collaborative solutions to industry challenges.

Impact on the Nigerian Energy Industry

1. **Enhancing Competitiveness:**

   By providing high-quality training and development programs, the Competency Centre helps enhance the competitiveness of Nigeria's energy sector. Professionals equipped with the latest knowledge and skills are better positioned to drive innovation, improve efficiency, and deliver high-quality services.

   The Centre's focus on research and innovation also contributes to the development of new technologies and processes that can enhance operational performance and reduce costs within the Nigerian energy sector.

2. **Promoting Sustainability:**

   The Competency Centre's emphasis on sustainability helps align the Nigerian energy sector with global environmental goals. By promoting projects related to LPG, CNG, solar energy, and ethanol, the Centre contributes to the reduction of greenhouse gas emissions and the conservation of natural resources.

   Educational and awareness programs aimed at promoting sustainability help build a culture of environmental stewardship within energy sector.

3. **Supporting Policy Development:**

   Through its research and stakeholder engagement activities, the Competency Centre provides valuable input into the development of energy policies and regulations in Nigeria. The Centre's expertise and insights help inform policy decisions, ensuring they are based on sound evidence and best practices.

   The Centre also plays a role in advocating for policies that support the growth and development of Nigeria's energy sector, including incentives for renewable energy projects, funding for research and development, and regulations that promote energy efficiency.

Future Directions

1. **Expansion of Services:**

   The Competency Centre plans to expand its range of services to meet the evolving needs of the energy sector. This includes the development of new training programs, the introduction of advanced research capabilities, and the expansion of consultancy services to cover emerging areas such as digitalization and cybersecurity.

   Plans are also underway to enhance the Centre's online presence, providing more interactive experiences and expanding its reach to a global audience.

2. **Increased Collaboration:**

   The Centre aims to strengthen its collaboration with international partners, leveraging global expertise and resources to address local challenges. This includes building partnerships with leading global research institutions, industry associations, and multinational energy companies.

   Collaborative efforts will focus on addressing key challenges such as climate change, energy transition, and the integration of renewable energy sources into Nigeria's energy mix.

3. **Enhanced Impact Measurement:**

   To ensure its activities deliver the desired impact, the Competency Centre will implement a robust impact measurement framework. This framework will track the outcomes of training programs, research projects, and consultancy services, providing valuable feedback for continuous improvement.
   Regular impact assessments will help identify areas for enhancement, ensuring the Centre continues to deliver high-value services that meet the needs of Nigeria's energy sector.

The Competency Centre is a cornerstone of the industry's efforts to drive excellence, innovation, and sustainability in the energy sector. Through its comprehensive range of services, the Centre provides critical support to industry professionals, researchers, and stakeholders, helping build a resilient and competitive energy sector. As the energy landscape continues to evolve, the Competency Centre will play a vital role in ensuring that Nigeria's energy sector is well-prepared to meet future challenges and seize new opportunities.

WHY PARTNER WITH MEMAN

The vision of the association is to pursue the entrenchment of sustainable energy industry in Nigeria.

The mission of the association shall be to institutionalize a viable energy industry for social and economic growth.

Core values: Safety - Professionalism - Integrity - Transparency.

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APPENDIX

New Opportunities

World Bank Solar Investment

According to the World Bank. The World Bank approved the Nigeria Distributed Access through Renewable Energy Scale-up (DARES) project on December 14, 2023, in Abuja Nigeria, which is financed by an International Development Association* (IDA) credit of $750 million and will leverage over $1 billion of private capital and significant parallel financing from development partners, including $100 million from the Global Energy Alliance for People and Planet and $200 million from Japan International Cooperation Agency. Other development partners collaborating on the program include the United States Agency for International Development (USAID), the German Development Agency (GIZ), SEforAll, and the African Development Bank (AfDB). The DARES project aims to provide over 17.5 million Nigerians with new or improved access to electricity through distributed renewable energy solutions.

To further address the access gap, DARES will build on the achievements of the World Bank-financed Nigeria Electrification Project (NEP), which has supported the establishment of 125 mini grids and the sale of over a million Solar Home Systems, through which more than 5.5 million Nigerians have gained access to electricity. NEP has also resulted in the creation of over 5,000 private-sector local green jobs in Nigeria.

Pecan Field Development, Ghana

The Pecan oil development project is a significant conventional oil venture situated in ultra-deepwater off the coast of Ghana. Operated by Aker Energy Ghana, the Pecan field was discovered in 2012 and is located within the Deepwater Tano/Cape Three Points block, at a water depth of approximately 8,748 feet **(USDA Foreign Agricultural Service)**.

As of now, the Pecan project is in the approval stage with a Final Investment Decision (FID) anticipated in 2024. Commercial production is expected to commence in 2025 **(USDA Foreign Agricultural Service)**. The total development cost for the project is estimated to be around $1.5 billion. This development will involve the drilling of about five wells and includes the installation of a Floating Production Storage and Offloading (FPSO) unit, subsea manifold, and subsea trees **(USDA Foreign Agricultural Service) (USDA Foreign Agricultural Service).**

South Africa

South Africa's Transnet National Ports Authority (TNPA) has chosen a consortium led by the Dutch company Vopak NV to develop and manage a liquefied natural gas (LNG) terminal at the Port of Richards Bay. This initiative is part of South Africa's strategy to diversify its energy sources and reduce carbon emissions **(USDA Foreign Agricultural Service)**.

The consortium includes Vopak, a significant entity in the oil and gas industry with a network of 78 terminals across 23 countries, and Transnet Pipelines, a state-owned South African company responsible for the transportation of petroleum and gas products **(USDA Foreign Agricultural Service)**. This project aligns with the South African government's objectives to expand the gas market and bolster gas-to-power generation capabilities **(USDA Foreign Agricultural Service)**.

Commercial operations at the terminal are projected to commence in 2027, following the finalisation of the terminal operator agreement, which is currently under negotiation **(USDA Foreign Agricultural Service) (USDA Foreign Agricultural Service).**

Modular Refineries

Modular refineries	Location	State
Waltersmith Refining & Petrochemical Company Limited	Ibigwe	Imo
Opac Refineries	Umuseti Kwale	Delta
Niger Delta Petroleum Resources (Train 3)	Ogbele	Rivers
Dangote Oil Refinery Company	Lekki Free Trade Zone	Lagos
Edo Refinery & Petrochemical Company Limited	Ikpoba-Okha L.G.A.	Edo
Lowrie Refinery Limited	Ika North L.G.A.	Delta
Excel Refinery Limited	Peretorugbene Community Ekeremor L.G.	Bayelsa
Conodit Refinery Nigeria Limited	Umukwata	Delta
Duport Midstream	Egbokor	Edo
Clairgold Oil &Gas Engineering Limited	Koko	Delta
Ogini Refinery Limited	Ogini Kwale	Delta
Etopo Energy Plc	Burtu	Delta
Gasoline Associate International Limited	Ipokia	Ogun
NPDC/ND Western OML 34 JV	OML 34 field, Ughelli East, Ughelli North L.G.A.	Delta
Frao Oil Nigeria Limited	Uzere	Delta
Kingdom Global Trading Petroleum & Gas Nig. Ltd.	Okwagbe, Ughelli south L.G.A.	Delta
Resource Petroleum & Petrochemicals International Incorporated	Ibeno	Akwa Ibom
Gazingstock Petroleum Company Limited	Abalagada Community Ndokwa East L.G.A.	Delta
Amakpe International Refineries Limited	Ibeno, Eket	Akwa Ibom
Atlantic International Refineries and Petrochemical Limited	Okpoama, Brass	Bayelsa
Azikel Petroleum Limited	Obunagha, Yenegoa L.G.A.	Bayelsa
Allegiance Energy and Power Limited	Esit Eket Akwa	Akwa Ibom
Alexis Refinery Limited	Aboh, Ndokwa East L.G.A.	Delta
SOURCE: Nairaland Forum		

Midstream and Downstream Petroleum Fees Regulation - *SOURCE: NMDPRA*

SECOND SCHEDULE

1. The following fees specified in the tables below shall be payable for licenses, permits, authorizations and approvals in midstream and downstream petroleum operations –

TABLE 1

A	**HYDROCARBON PROCESSING FACILITIES**		
ACTIVITY		APPLICATION FEE	PROCESSING FEE
LICENCE TO ESTABLISH			
1a	License to establish (LTE) Petroleum Liquids (Refining/Refining and Petrochemical) Facilities	USD 10,000 for capacities less than 30,000 BPSD	USD 2,000
		USD 50,000 for capacities above 30,000 BPSD	
1b	License to establish (LTE) Natural Gas (Processing and Conditioning) Facilities	USD 1,000 per every 6MMSCFD or part thereof of plant capacity to a maximum fee of USD 50,000	USD 2,000
LICENCE TO CONSTRUCT			
2a	License to Construct (LTC) Petroleum Liquids (Refining/Refining and Petrochemicals) Facilities	USD 10,000 for capacities < 30,000 BPSD	USD 2,000
		USD 20,000 for capacities between 30,000 and 50,000 BPSD	
		USD 30,000 for capacities above 50,000 BPSD	
2b	License to Construct (LTC) Natural Gas (Processing and Conditioning) Facilities	USD 10,000 for capacities < 6 MMSCFD	USD 2,000
		USD 20,000 for capacities between 6 MMSCFD and 180 MMSCFD	
		USD 30,000 for capacities above 180 MMSCFD	
2c	License To Construct (LTC) Re- validation (only applicable where an LTC has been expired for less than five years)	USD 10,000 for capacities < 30,000 BPSD	N/A
		USD 20,000 for capacities between 30,000 and 50,000 BPSD	
		USD 30,000 for capacities above 50,000 BPSD	
		USD 10,000 for capacities < 6 MMSCFD	
		USD 20,000 for capacities between 6 MMSCFD and 180 MMSCFD	
		USD 30,000 for capacities above 180 MMSCFD	
LICENCE TO OPERATE			

3a	License To Operate (LTO) Petroleum Liquids Refining/Processing Facilities (New)	USD 50,000 for capacities < 30,000 BPSD	N/A
		USD100,000 for capacities between 30,000 and 50,000 BPSD	
		USD100,000 for the first 50,000 BPSD capacity and additional USD 1000 for every additional 1,000 BPSD or part thereof	
3b	License To Operate (LTO) Natural Gas Processing/Derivatives Facilities New	USD 10,000 for capacities < 6 MMSCFD	N/A
		USD100,000 for capacities between 6 and 180 MMSCFD	
		USD100,000 for the first 180 MMSCFD and additional USD 1, 500 for every additional 6 MMSCFD or part thereof	
3c	License To Operate (LTO) Natural Gas Conditioning Facilities New	USD10,000 per facility	N/A
4a	License To Operate (LTO) Renewal Petroleum Liquids (Refining/Refining and Petrochemicals) Facilities	USD 1,000 per 1000BPSD petroleum liquid or part thereof	N/A
4b	License To Operate (LTO) Renewal Natural Gas Processing/Derivatives Facilities	USD 1,000 per 6 MMSCFD or part thereof	N/A
4c	License To Operate (LTO) Renewal Natural Gas Conditioning Facilities	USD10,000 per facility	N/A
5	Critical Equipment/Plant Relocation Approval	USD 5,000	N/A
6	Commissioning/Authorization to introduce Hydrocarbons	USD 2,000	N/A
7	Approval to Modify a hydrocarbon processing facility	USD 200 per every 1,000BPSD or part thereof of petroleum liquids plant capacity to a maximum fee of USD 10,000	N/A
		USD 200 per every 6MMSCFD or part thereof of natural gas processing plant capacity to a maximum fee of USD 10,000	N/A
8	Approval To Deploy New Technology	USD 1,000	N/A

TABLE 2

B	HYDROCARBON LIQUIDS BLENDING/LUBRICANT REFILLING/BITUMEN PROCESSING/WASTE TREATMENT/PETROLEUM-BASED ADDITIVES PRODUCTION OPERATIONS		
ACTIVITY		APPLICATION FEE	PROCESSING FEE
1	License To Establish (LTE)	USD 1,500 or its NGN equivalent	N/A
2	License To Construct (LTC)	USD 2,500 or its NGN equivalent	N/A
3	License To Operate (LTO)	USD 5 per 5,000 litres or part thereof of plant processing capacity.	NGN 250,000
4	3rd Party Blending Approvals Product Owner	NGN 0.5 per litre for volumes < 250,000 (TPBA -PRO3)	NGN 150,000
		NGN 0.5 per litre for volume between 250,000 - 500,000 (TPBA -PRO4)	NGN 250,000
		NGN 0.5 per litre for volumes above 500,000 (TPBA-PRO5)	NGN 300,000
5	3rd Party Blending Approvals Plant Owner	NGN 0.5 per litre	NGN 300,000
6	Revalidation Of LTC	USD1,000	N/A
7	Approval to Modify	USD 1,000 or its NGN equivalent	N/A
8	Plant Relocation Approval	USD 2,500 or its NGN equivalent	N/A
9	Lubricant Storage and Sales License (Lube Distributors (E-D1))	NGN 200,000	NGN 50,000
10	Lubricant Storage and Sales License (Lube Distributors (E-D2))	NGN 150,000	NGN 50,000
11	Lubricant Storage and Sales License (Lube Distributors (E-D3))	NGN 100,000	NGN 50,000
12	Lubricant Storage and Sales License (Lube Distributors (E-D4))	NGN 75,000	NGN 50,000
13	Lubricant Storage and Sales License (Lube Retailers (E-R1))	NGN 50,000	NGN 10,000
14	Lubricant Storage and Sales License (Lube Retailers (E-R2))	NGN 25,000	NGN 10,000
15	Lubricant Storage and Sales License (Lube Retailers (E-R3))	NGN 15,000	NGN 10,000
16	Lubricant Storage and Sales License (Lube Retailers (E-R4))	NGN 10,000	NGN 10,000

TABLE 3

C	TERMINALS		
ACTIVITY		APPLICATION FEE	PROCESSING FEE
1	License to Establish a Petroleum Liquids Terminal	USD 50,000	N/A
2	License to Construct/Install a Petroleum Liquids Terminal	USD 5000	N/A
3	Permit to collect crude oil and condensates sample for assay analysis	USD 500 or its NGN equivalent	N/A
4	License to Operate a Petroleum Liquids Terminal	USD 100,000 for capacities < 750,000 BBL	N/A
		USD 150,000 for capacities ≥750,000 BBL and ≤1,500,000 BBL	N/A
		USD 200,000 for capacities >1,500,000	N/A
5	Pre-lease/Pre-shipment inspection of vessels for use as a terminal	USD 20,000	N/A

TABLE 4

D	PETROLEUM LIQUIDS NETWORK CODE		
ACTIVITY		APPLICATION FEE	PROCESSING FEE
1	Crude oil and condensate Transportation Network Operator (T1) - System with Capacity < 166000 BBL/D	USD 2,500	USD 1,000
2	Crude oil and condensate Transportation Network Operator (T2) - System with Capacity 166000 – 830000 BBL/D	USD 1,500	USD 850
3	Crude oil and condensate Transportation Network Operator (T3) - System with Capacity > 830000BBL/D	USD 2,750	USD 2,000
4	Petroleum products Transportation Network Operator (T1) - System with Capacity < 26 million litres per day	USD400	NGN100,000
5	Petroleum products Transportation Network Operator (T2) - System with Capacity between 26 million and 131million litres per day	USD 850	NGN 80,000
6	Petroleum products Transportation Network Operator (T3) - System with Capacity > 131million litres per day	USD 1000	NGN 70,000

TABLE 5

E	GAS NETWORK CODE		
ACTIVITY		PROCESSING FEE	APPLICATION FEE
1	Gas Transportation Network Operator (T1) - System with Capacity < 1 BSCF/D	USD 1,500	USD 850
2	Gas Transportation Network Operator (T2) - System with Capacity 1 - 5BSCF/D	USD 2,500	USD 1,000
3	Gas Transportation Network Operator (T3) - System with Capacity >5BSCF/D	USD 2,750	USD 2,000
4	Gas Shipper (S1) - Shipping Capacity 1 - 30 MMSCF/D	USD 1,000	USD 500
5	Gas Shipper (S2) - Shipping Capacity 31 - 200 MMSCF/D	USD 1,500	USD 850
6	Gas Shipper (S3) - Shipping Capacity > 200 MMSCF/D	USD 2,000	USD 1,000
7	Network Agent	USD 1,000	USD 500

TABLE 6

F	EXPORT AND IMPORT		
ACTIVITY		APPLICATION FEE	PROCESSING FEE
1	Import Permit for Additives and other Chemicals	USD 1,000 or NGN equivalent	N/A
2	Coastal Vessel License	USD 1,200 or NGN equivalent	NGN100,000
3	Coastal Vessel Clearance	NGN 300,000	N/A
4	Import License for Petroleum Products, base oil, and gas products	USD 500 or its NGN equivalent	NGN 75,000/30,000MT
5	Import License for petroleum liquids other than petroleum products	USD 1000 or its NGN equivalent	N/A
6	Import License for Synthetic and Non-Synthetic Lubricants	USD 1000 or its NGN equivalent	NGN 150,000
7	Approval for Inclusion of Countries of Origin/ Addition of Volume	USD 500 or its NGN equivalent	N/A
8	Export Point Designation	USD 5,000 or its NGN equivalent	N/A
9	Export Permit	USD 1,000	N/A

TABLE 7

G	BULK STORAGE FACILITY (Liquid Petroleum Products)		
ACTIVITY		APPLICATION FEE	PROCESSING FEE
1	License To Establish (LTE)	USD 5,000 or its NGN equivalent	N/A
2	License To Construct (LTC)	USD 10,000 or its NGN equivalent	N/A
3	License to Operate (LTO)	NGN 3,000,000 for capacities between 0 – 10,000,000 Litres And every 5,000 litres above 10,000,000 litres attract NGN 100	NGN 500,000
4	Facility Modification Approval	USD 3,500 or its NGN equivalent	N/A
5	Backloading Permit	USD 5,000 or its NGN equivalent	N/A
6	Annual Registration of Petroleum Product Jetty	NGN 1,000,000	N/A
7	Tank Conversion	USD 2,500 for the first tank and USD 750 per tank for subsequent tanks or its NGN equivalent	N/A

TABLE 8

H	BULK STORAGE FACILITIES (GAS)		
ACTIVITY		APPLICATION FEE	PROCESSING FEE
1	License to Establish	USD 5,000 or its Naira equivalent	N/A
2	License to Construct/Modify	USD 5,000 or its Naira equivalent	N/A
3	License to Operate (New/Renewal)	NGN 1,500,000 per 2,500MT or part thereof	N/A
4	Annual Registration of petroleum product jetty	NGN 1,000,000	N/A

TABLE 9

I	BULK PETROLEUM LIQUID STORAGE (excluding petroleum products)		
ACTIVITY		APPLICATION FEE	PROCESSING FEE
1	License to Establish	USD 20,000 for capacities 0 -50,000 BBL USD 50,000 for capacities greater than 50,000 BBL	USD 2,000
2	License To Construct	USD 5,000 for capacities between 0 – 50,000 BBL	USD 2,000
		USD 10,000 for capacities greater than 50,000 BBL	
3	License To Operate (LTO) (New and Renewal)	USD 10,000	USD 2,000
4	Approval To Modify	USD 10,000	N/A

TABLE 10

J	INDUSTRIAL PETROLEUM PRODUCTS STORAGE AND UTILISATION		
ACTIVITY		APPLICATION FEE	PROCESSING FEE
1	License to Operate Industrial Consumer Storage Facility	NGN 75,000 for the first 20,000 litres, subsequently each additional 20,000 litres attract NGN 10,000	NGN 50,000
2	License to Operate Mobile Containerised Filling Station (For Industrial Consumer)	NGN 1,000,000	NGN 500,000

TABLE 11

K	INDUSTRIAL GAS STORAGE AND UTILISATION		
ACTIVITY		APPLICATION FEE	PROCESSING FEE
1	License To Establish (LTE)	NGN 100,000	N/A
2	License to Construct/install	NGN 200, 000	N/A
3	License To Operate (New/Renewal)	NGN 550,000	N/A

TABLE 12

L	GAS TO TELECOM/SMALL SCALE INDUSTRIAL STORAGE AND UTILIZATION		
ACTIVITY		APPLICATION FEE	PROCESSING FEE
1	License to Establish/License to Construct	NGN 50,000	N/A
2	Pressure Test	NGN 50,000	N/A
3	Authorization for Tank Burial	NGN 50,000	N/A
4	License To Operate (New/Renewal)/ every two years	NGN 100,000 per annum	N/A

TABLE 13

M	PETROLEUM PRODUCT RETAILING OPERATIONS AND INFRASTRUCTURE		
ACTIVITY		APPLICATION FEE	PROCESSING FEE
1	License To Establish (LTE)	NGN 100,000	N/A
2	License to Construct (LTC)	NGN 200,000	N/A
3a	License to Operate – New	NGN 100,000 for the first 20,000 litres, subsequently each additional 20,000 litres or part thereof attract NGN 50,000	
3b	License to Operate – Renewal	NGN 100,000 for the first 20,000 litres, subsequently each additional 20,000 litres or part thereof attract NGN 5,000	
4	Authorization for Modification	NGN 300,000 per retail outlet	N/A
5	Rebranding (Signage) Approval	NGN 100,000 per retail outlet	
6	Storage Tank Pressure Test Authorization	Not applicable	
7	Storage Tank Calibration Authorization	NGN 10,000 per tank	N/A
8	Tank Conversion Authorization	NGN 100,000 per tank	N/A
9	Authorization for Tank Burial	Not applicable	
10	Authorization To Pre- Commission and Commission	NGN 50,000	N/A
11	Revalidation of Authorization /Licenses	NGN 25,000	N/A
12	Bunkering vessel/fixed and motorized barge License	NGN 10,000,000	
13	License to Operate Mobile Containerized Filling Station	NGN 1,500,000	

TABLE 14

N	GAS PRODUCTS RETICULATION		
ACTIVITY		APPLICATION FEE	PROCESSING FEE
1	License To Establish (LTE)	NGN 100,000	N/A
2	License to Construct	NGN 200,000	N/A
3	License to Operate/every 2 years	NGN 300,000	NGN 25,000

TABLE 15

O	LPG PROPANE HANDLING UNIT (PHU)		
ACTIVITY		APPLICATION FEE	PROCESSING FEE
1	Permit to Install (PTI)	NGN 300,000	N/A
2	Permit to Operate (PTO)	NGN 300,000	NGN 25,000

TABLE 16

P	PETROLEUM PRODUCTS (GAS) RETAILING OPERATIONS AND INFRASTRUCTURE (LPG REFILLING PLANT, AUTOGAS PLANT, LPG ADD-ON)		
ACTIVITY		APPLICATION FEE	PROCESSING FEE
		0.1MT - 5MT =NGN 100,000	N/A
		5.1MT - 10MT =NGN 200,000	N/A
		10.1MT - 60MT =NGN 300,000	N/A
1	License To Establish (LTE)	60.1 - 300MT =NGN 500,000	N/A
		0.1MT - 5MT =NGN 100,000	N/A
		5.1MT - 10MT =NGN 200,000	N/A
		10.1MT - 60MT =NGN 300,000	N/A
2	License to Construct/Install	60.1 - 300MT =NGN 500,000	N/A
3	Pressure Test Authorization	NGN 150,000	N/A
4	License to Operate (New/Renewal)/every 2 years	0.1MT - 5MT =NGN 100,000 p.a 5.1MT - 10MT =NGN 200,000 p.a 10.1MT - 60MT =NGN 300,000 p.a 60.1 - 300MT =NGN 500,000 p.a	5 – 100MT = NGN50,000 p.a and Additional 10MT or part thereof (Above 100MT) = NGN5,000 (p.a)
5	Authorization for Modification	NGN 150,000	N/A
6	Tank Burial Authorization	NGN 150,000	N/A
7	Instrument/dispenser calibration	NGN 100,000	N/A
8	License to Operate (LPG ADD-ON)	NGN 100,000	N/A

TABLE 17 A

Q	RETAIL GAS SUPPLY LICENCE (CNG COMPRESSION FACILITIES)		
ACTIVITY		APPLICATION FEE	PROCESSING FEE
1	License To Establish (LTE)	NGN 200,000	N/A
2	License to Construct	NGN 200,000 for less than 100,000 SCM and NGN300,000 for above 100,000 SCM.	NGN 20,000
3	License to Operate	NGN 300,000 for less than 100,000 SCM and NGN500,000 for above 100,000 SCM	NGN 20,000

TABLE 17 B

R1	RETAIL GAS SUPPLY LICENCE (SMALL SCALE LNG FACILITIES)		
ACTIVITY		APPLICATION FEE	PROCESSING FEE
1	License to Establish (LTE)	NGN 300,000	N/A
2	License to Construct	USD 1,000 or its NGN equivalent per MMSCFD	N/A
3	License to Operate (LTO)	USD 1,000 or its NGN equivalent per MMSCFD	N/A

TABLE 18

S	GENERAL FEE		
ACTIVITY		APPLICATION FEE	PROCESSING FEE
1	Due Diligence Request	NGN 100,000	N/A
2	Certificate of Quantity (COQ)	NGN 250,000	N/A
3	Product Import Certification (PIC)	NGN 220,000	N/A
4	Register Access Fee – Physical access to a register	NGN 100,000	N/A
5	Register Access Fee -Electronic Access to a register	NGN 50,000	N/A
6	Certified True Copy	License – NGN 150,000 Permit – NGN 125,000 Authorization – NGN 100,000 Approvals._. NGN 100,000 Exemption – NGN 50,000 Any other documents – NGN100,000	N/A
7	Change in Port of Discharge	NGN 150,000	N/A
8	Rebranding (Change of Logo)	NGN 100,000 per outlet	N/A

TABLE 19

S	MIDSTREAM AND DOWNSTREAM OIL AND GAS INDUSTRY SERVICE PERMITS		
ACTIVITY		APPLICATION FEE	PROCESSING FEE
1	General Purpose Category	NGN 500	NGN5,000
2	Major Purpose Category	NGN 2,500	NGN25,000
3	Specialized Purpose Category	NGN 7,500	NGN250,000

TABLE 20

T	GAS AGGREGATION LICENCE		
ACTIVITY		APPLICATION FEE	PROCESSING FEE
1	Domestic Gas Aggregation License	USD 100,000	USD 2,500 or its NGN equivalent

TABLE 21

V	PETROLEUM PRODUCTS DISTRIBUTION (LIQUID & GAS)		
ACTIVITY		APPLICATION FEE	PROCESSING FEE
1	Petroleum Products Distribution License	NGN 0.5 per litre or barrel equivalent	N/A
		NGN 0.25 per kg (gas products)	
2	Evacuation from Local Producing Facilities	NGN 0.5 per litre or barrel equivalent	N/A
		NGN 0.25 per kg (gas products)	
3	Certificate of Registration (Category D and Micro Distribution Centres)	NGN 10,000 per annum (NGN 20,000 for 2 years)	
4	Category D and Micro Distribution Centres (MDC (New/Renewal) – Not exceeding 500 kilograms (kg)	NGN 20,000	N/A

THIRD SCHEDULE

MEASUREMENT SYSTEMS

The fees specified in the table below shall apply to the grant and renewal of licenses, permits, authorizations and approvals issued by the Authority for measurement systems.

ACTIVITY		FEES
1	License To Establish (LTE) a metering system	USD 10,000
2	License To Construct (LTC) a metering system	USD 10,000
3	License To Operate a LACT/Meter	USD 10,000
4	Calibration/Recertification of LACT	USD 1000
5	Tank Calibration Approval for hydrocarbon processing plants	USD 1,000 per tank
6	Calibration of Crude Oil Vessel Storage Tank- for vessels with capacity > 600,000BBLs	USD 500 per tank
7	Calibration of Crude Oil Vessel Storage Tank- for vessels with capacity between 20,001 to 600,000BBLs	USD 300 per tank
8	Calibration of Crude Oil Vessel Storage Tank- for vessels with capacity <= 20,000 BBLs	USD 150 per tank
9	Calibration Of Truck	NGN 10,000 per truck
10	Terminal or Refinery Storage Tank Calibration / Recertification (petroleum liquids and natural gas)	USD 1,000 per tank
11	Coastal Vessel Tank Calibration	NGN 300,000 per vessel
12	Tank Calibration Authorization (petroleum products depot)	USD 800 per tank or its NGN equivalent
13	Tank Calibration Authorization (gas depot)	NGN 500,000 per tank
14	Integrity Test Authorization (storage tanks, vessel tanks, or other pressure vessels)	NGN 100,000 per tank or per vessel/pressure vessel

FOURTH SCHEDULE

MIDSTREAM AND DOWNSTREAM PETROLEUM ENVIRONMENTAL ACTIVITIES

The fees specified in the tables below shall apply to the grant and renewal of licenses, permits, authorizations and approvals issued by the authority for environmental activities in midstream and downstream petroleum operations

TABLE 1 - MIDSTREAM FACILITIES

	ACTIVITY	FEES (or NGN equivalent)	FREQUENCY
Hydrocarbon Processing Plants, Installations, and Transportation			
1	Environmental Management Plan	USD 500	As per requirement
2	Point Source Registration (per facility or installation)	USD 400	As per requirement
3	Project Concept Screening Report, Preliminary Environmental Risk Assessment	USD 200	As per requirement
4	Post Impact Assessment Study	USD 300	As required by the Authority
5	Terms of Reference and Scope of Work (TOR and SOW)	USD 400	As per requirement
6	Environmental Evaluation Study	USD 3,350	5 years
Engineered Landfill			
7	Environmental Management Plan	USD 600	As per requirement
8	Point Source Registration (per Facility or installation)	USD 150	5 years
9	Project Concept Screening Report or Preliminary Environmental Risk Assessment	USD 200	As per requirement
10	Post Impact Assessment Study	USD 300	As per requirement
11	Environmental Evaluation Study	USD 850	As per requirement
12	Terms of Reference and Scope of Work (TOR and SOW)	USD 300	As per requirement
13	Permit to Operate	USD 1,250	As per requirement
Waste Management Facility			
14	Environmental Management Plan	USD 300	As per requirement
15	Point Source Registration (per Facility or installation)	USD 150	As per requirement
16	Project Concept Screening Report or Preliminary Environmental Risk Assessment	USD 150	As per requirement
17	Terms of Reference and Scope of Work (TOR and SOW)	USD 100	As per requirement
18	Environmental Evaluation Study	USD 100	As per requirement
19	Post Impact Assessment Study	USD 100	As per requirement
20	Operational Permit per treatment facility or unit per licensee, for hazardous waste transportation	USD 200 or Naira equivalent	As per requirement
21	Point Source Registration or Facility	USD 100	As per requirement

TABLE 2 - DOWNSTREAM FACILITIES

	ACTIVITY	FEES	FREQUENCY
A. Depot			
1	Environmental Management Plan	NGN 160,000	As per requirement
2	Point Source Registration (per Facility or installation)	NGN 100,000	5 years
3	Project Concept Screening Report or Preliminary Environmental Risk Assessment	NGN 80,000	As per requirement
4	Post Impact Assessment Study	NGN 120,000	As required by the Authority
5	Terms of Reference and Scope of Work (TOR and SOW)	NGN 120,000	As per requirement
6	Environmental Evaluation Study	NGN 345,000	5 years
B. Petroleum Products Retail Facilities			
7	Mandatory Environmental Site Assessment	NGN 80,000	As per requirement
8	Retail Outlet Site, Facility or Plant Audit	NGN 40,000	As per requirement
9	Environmental Management Plan	NGN 60,000	As per requirement
10	Post Impact Assessment Study	NGN 40,000	As per requirement
11	Terms of Reference and Scope of Work (TOR and SOW)	NGN 40,000	As per requirement
12	Environmental Evaluation Study	NGN 40,000	As per requirement

TABLE 3 - OTHER FACILITIES

	ACTIVITY	FEES	FREQUENCY
C. Laboratory			
1	Third party Laboratory Accreditation (new application)	NGN 500,000	As per requirement
2	Third party Laboratory Accreditation (Renewal)	NGN 250,000	Annually
3	In-house laboratory accreditation (new application)	NGN 300,000	As per requirement
4	In-house laboratory accreditation (Renewal)	NGN 200,000	Annually
5	Annual Laboratory QA or QC- Reference material and Proficiency testing	NGN 500,000	Annually
6	Certification of Chemicals or remediation products	NGN 250,000	3 years
7	Approval to produce culture test organisms for Biomonitoring	NGN 500,000	As per requirement

TABLE 4 - HSEC GENERAL

	Activity	Fees For Midstream facilities	Fees For Downstream facilities	FREQUENCY
General				
1	Special Studies, Biological Monitoring Studies	USD 200	NGN 100,000	As per requirement
2	Spill Release Contingency Plan and Authorization or Journey Management Plan Authorization for alternative product evacuation	USD 250	NGN 100,000	As per requirement
3	Environmental Compliance monitoring/Green House Gas (GHG) monitoring	USD 200	NGN 125,000	Quarterly
4	Environmental Compliance monitoring (for facilities with recipient water body)/GHG monitoring	USD 500	NGN 175,000	Quarterly
5	Decommissioning and Abandonment Plan	USD 300	NGN 200,000	As per requirement
6	Produced Formation Water disposal permit	USD 200	N/A	As per requirement
7	Special Environmental Permit	USD 400	NGN 200,000	As per requirement
8	Leak test (storage tanks, BRV tanks etc.)	NGN50,000	NGN 50,000	As per requirement
9	Chemical formulation and chemical blending approval	N 500,000	NGN 500,000	As per requirement
10	Certification of facility or plant critical safety equipment	N 1,000,000 per facility	NGN 250,000 per facility	As per requirement
11	RBI Methodology Approval	N 2,500,000	NGN 2,500,000	As per requirement
12	RBI Facility Approval	N 1,000,000	NGN 1,000,000	As per requirement
13	Safety case approval	N 500,000	NGN 500,000	As per requirement

TABLE 3 - OTHER FACILITIES

	ACTIVITY	FEES	FREQUENCY
C. Laboratory			
1	Third party Laboratory Accreditation (new application)	NGN 500,000	As per requirement
2	Third party Laboratory Accreditation (Renewal)	NGN 250,000	Annually
3	In-house laboratory accreditation (new application)	NGN 300,000	As per requirement
4	In-house laboratory accreditation (Renewal)	NGN 200,000	Annually
5	Annual Laboratory QA or QC- Reference material and Proficiency testing	NGN 500,000	Annually
6	Certification of Chemicals or remediation products	NGN 250,000	3 years
7	Approval to produce culture test organisms for Biomonitoring	NGN 500,000	As per requirement

TABLE 4 - HSEC GENERAL

	Activity	Fees For Midstream facilities	Fees For Downstream facilities	FREQUENCY
General				
1	Special Studies, Biological Monitoring Studies	USD 200	NGN 100,000	As per requirement
2	Spill Release Contingency Plan and Authorization or Journey Management Plan Authorization for alternative product evacuation	USD 250	NGN 100,000	As per requirement
3	Environmental Compliance monitoring/Green House Gas (GHG) monitoring	USD 200	NGN 125,000	Quarterly
4	Environmental Compliance monitoring (for facilities with recipient water body)/GHG monitoring	USD 500	NGN 175,000	Quarterly
5	Decommissioning and Abandonment Plan	USD 300	NGN 200,000	As per requirement
6	Produced Formation Water disposal permit	USD 200	N/A	As per requirement
7	Special Environmental Permit	USD 400	NGN 200,000	As per requirement
8	Leak test (storage tanks, BRV tanks etc.)	NGN50,000	NGN 50,000	As per requirement
9	Chemical formulation and chemical blending approval	N 500,000	NGN 500,000	As per requirement
10	Certification of facility or plant critical safety equipment	N 1,000,000 per facility	NGN 250,000 per facility	As per requirement
11	RBI Methodology Approval	N 2,500,000	NGN 2,500,000	As per requirement
12	RBI Facility Approval	N 1,000,000	NGN 1,000,000	As per requirement
13	Safety case approval	N 500,000	NGN 500,000	As per requirement

FIFTH SCHEDULE

GAS TRADING AND SETTLEMENT

1. The following fees specified in Table I, shall be payable for the issuance of a gas trading license or clearing house authorization by the Authority —

Table I

S/N	Activity	Fee
1	Gas Trading License	USD 100,000
2	Clearing House Authorization	USD 100,000

2. The annual administrative charges specified in Table II, shall be payable by a gas exchange or a clearing house for every subsequent financial year after issuance of the license or authorization granted by the Authority, and shall be based on commissions received on all transactions taking place on the exchange.

Table II

S/N	Activity	Fee (USD)
Annual Administrative Charges		
1	To be paid by the Gas Exchange	(a) 100,000 or 20% of the exchange commission on value of transaction, excluding taxes, during the relevant financial year, whichever is higher; and
		(b) 20% of the application or renewal fee, paid by members of the exchange, excluding taxes, during the relevant financial year.
2	To be paid by the Clearing House	50,000 or 20% of the commission, excluding taxes, during the relevant financial year, whichever is higher.

SIXTH SCHEDULE

ASSIGNMENT OR TRANSFER OF LICENCE OR PERMIT REGULATIONS TABLE OF FEES

The fees in the tables below shall be applicable to the assignment or transfer of licenses and permits in midstream and downstream petroleum operations in Nigeria.

TABLE A

1. The transferee shall be required to pay the applicable assignment or transfer of license or permit processing fee in the table below, or five per cent (5%) of the value of transaction, whichever is higher: -

S/N	Facility	Processing Fees
1	Petrol liquids/gas retail outlets	NGN 500,000
2	Depots	NGN 10,000,000
3	Blending Plants/Waste Recycling Plants /Bitumen Emulsion Plants/ Refilling Plants/Thermal Desorption Units	NGN 3,000,000
4	Hydrocarbon Processing Plant (Refineries, Petrochemicals and Gas Processing facilities)	USD 10,000 for capacities less than 1,000 BPSD, or less than 6MMSCFD
		USD 50,000 for capacities between 1,000 and 30,000 BPSD, or between 6MMSCFD and 180MMSCFD
		USD 150,000 for capacities above 30,000 BPSD, or above 180MMSCFD
5	Pipeline	USD 500 p e r k m
6	Pipeline Distribution Network	USD 200 per km
7	Pipeline Transportation Network	USD 250 per km
8	Terminals	USD 200,000
9	CNG Compression Station/Small Scale LNG Installations	NGN 500,000

TABLE B

S/N	Facility	Processing Fees
1	Change of name not constituting an assignment or transfer	NGN 500,000

SEVENTH SCHEDULE
TRANSPORTATION

he following fees specified in the table below, shall be payable for the issuance of licenses, permits, authorizations and approvals issued by the Authority for activities connected with pipelines under the Act.

	TRANSPORTATION INFRASTRUCTURE		
ACTIVITY		**PROCESSING FEE**	**APPLICATION FEE**
1	Virtual Pipeline - Barging, Rail and Trucking of Crude Oil (New and Renewal)	USD 2,000 for Barge/Rail USD 1,000 for Truck	N/A
2	Virtual Pipeline - Barging, Rail and Trucking of Crude Oil Supplementary	USD 1,500 for Barge/ Rail USD 500 for truck	N/A
3	Permit to Survey (PTS) Pipeline Route	USD 50 per km or part thereof or USD 500, whichever is higher	N/A
4	License to Establish (LTE)	USD 5,000	USD 500
5	License to Construct Pipeline (LTC)	USD 5,000	N/A
6	Petroleum Liquids Transportation Pipeline License (PLL)	USD 200 per km or part thereof or USD 1000, whichever is higher	USD 500
7a	Annual License to Operate Petroleum Liquids Transportation Pipeline (LTO)	USD 500 per km or part thereof or USD 2500, whichever is higher	USD 500 or its NGN equivalent
7b	Annual License to Operate Petroleum Liquids Transportation Pipeline (LTO) (From Jetty to Depot)	USD 500 or its naira equivalent per km or part thereof	
8	Revalidation of PTS	USD 100 per km or part thereof or USD 1000, whichever is higher	N/A
9	Revalidation of LTE	USD 7,500	USD 500
10	PLL Restriction Order	USD 10,000	USD 2,000
11	Change of Service	USD 2,000	N/A
12	Upgrading and downgrading of a Pipeline (re-rating)	USD 2,000	N/A

SEVENTH SCHEDULE
TRANSPORTATION

he following fees specified in the table below, shall be payable for the issuance of licenses, permits, authorizations and approvals issued by the Authority for activities connected with pipelines under the Act.

TRANSPORTATION INFRASTRUCTURE			
ACTIVITY		**PROCESSING FEE**	**APPLICATION FEE**
1	Virtual Pipeline - Barging, Rail and Trucking of Crude Oil (New and Renewal)	USD 2,000 for Barge/Rail USD 1,000 for Truck	N/A
2	Virtual Pipeline - Barging, Rail and Trucking of Crude Oil Supplementary	USD 1,500 for Barge/ Rail USD 500 for truck	N/A
3	Permit to Survey (PTS) Pipeline Route	USD 50 per km or part thereof or USD 500, whichever is higher	N/A
4	License to Establish (LTE)	USD 5,000	USD 500
5	License to Construct Pipeline (LTC)	USD 5,000	N/A
6	Petroleum Liquids Transportation Pipeline License (PLL)	USD 200 per km or part thereof or USD 1000, whichever is higher	USD 500
7a	Annual License to Operate Petroleum Liquids Transportation Pipeline (LTO)	USD 500 per km or part thereof or USD 2500, whichever is higher	USD 500 or its NGN equivalent
7b	Annual License to Operate Petroleum Liquids Transportation Pipeline (LTO) (From Jetty to Depot)	USD 500 or its naira equivalent per km or part thereof	
8	Revalidation of PTS	USD 100 per km or part thereof or USD 1000, whichever is higher	N/A
9	Revalidation of LTE	USD 7,500	USD 500
10	PLL Restriction Order	USD 10,000	USD 2,000
11	Change of Service	USD 2,000	N/A
12	Upgrading and downgrading of a Pipeline (re-rating)	USD 2,000	N/A

EIGHTH SCHEDULE
MIDSTREAM GAS FLARE

The following fees shall be payable in respect of flare gas in midstream petroleum operations:

S/N	Permits	Fees
1	Permit to Access Flare Gas	NGN 100,000
2	Permit to Flare	NGN 100,000

NINTH SCHEDULE

GAS DISTRIBUTION LICENCE

The fees specified in the table below shall apply to the grant and renewal of a gas distribution license issued by the Authority:

GAS DISTRIBUTION LICENCE		
S/N	**Name**	**Fee**
1	Application for grant of gas distribution license in a local distribution zone	USD 10,000
2	Grant of a gas distribution license	USD 100,000
3	Annual operating charge	USD 50,000
4	Renewal of a gas distribution license after 25 years	USD 250,000

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