

Energy

Sector Report, Africa:
JANUARY 2025

TABLE OF CONTENTS

01	Industry Overview	
	Sector Performance	3.1
	Select Energy Prices	3.2
02	Industry Milestone 1	
	South African Nuclear Power	5.1
03	Industry Milestone 2	
	Dangote Refinery Price Reduction	7.1
04	Challenges & Opportunities	
	Rising Nuclear Energy	7.1
	Key Opportunities	8.1
	Glossary	9.1

Industry Overview

Sector Report | Issue #02 | 15/02/2025

Africa's Growth Amid Transition:

Over the past month, the global energy sector saw key developments. Governments pushed for cleaner energy, with the EU advancing decarbonisation and Japan setting ambitious targets. Rising costs remained a challenge, especially in the UK. Meanwhile, renewables and storage investments grew, with Australia and others expanding capacity, reinforcing the shift toward balancing affordability and sustainability.

Africa's energy sector made progress this month, with oil and gas production rising amid strong demand and new exploration. South Africa is exploring nuclear power to tackle shortages, while solar and wind projects expand across the continent. Governments are driving investment in both traditional and clean energy, emphasising local industry participation. As Africa transitions to a greener future, these efforts are building a more reliable and sustainable energy landscape.

Select Energy Prices:

Crude Oil:

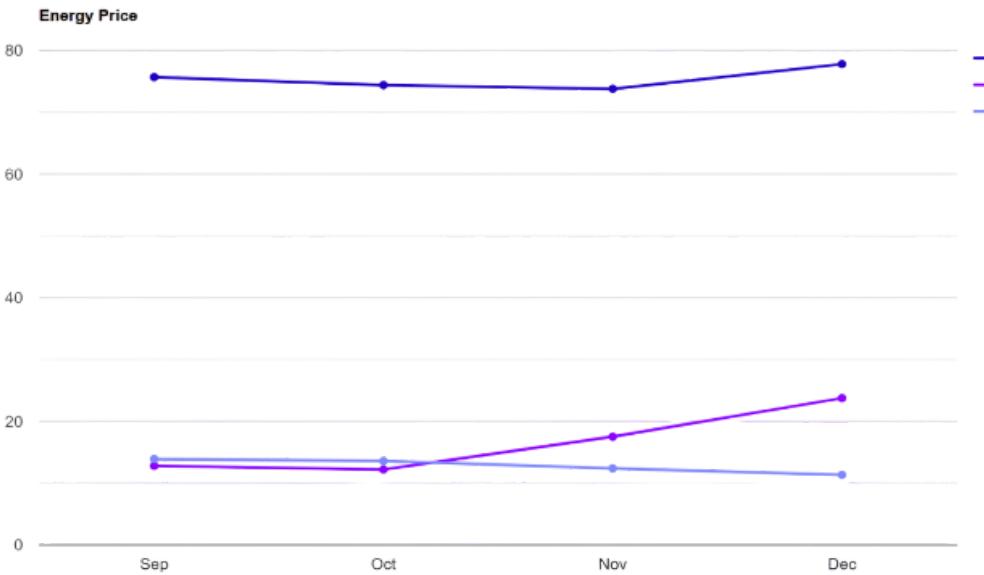
- Africa remains a key player in the global oil market, now accounting for 10% of the world's crude supply. Nigeria and Angola are set to produce 3.39 million barrels per day in 2025, while Libya's first private oil firm, Arkenu, has exported \$600M since May 2024. Meanwhile, India has increased its African crude imports to replace disrupted Russian supplies. As global demand rises, Africa's role in the crude market continues to strengthen.

Natural Gas:

- Africa is becoming an increasingly important player in the global natural gas market, with vast reserves and expanding production. Leading producers like Nigeria, Algeria, and Egypt are boosting their export capacities to meet rising demand in Europe and Asia. New LNG projects, such as the Mozambique LNG project led by TotalEnergies, are helping countries like Mozambique and Senegal position themselves as major exporters. As global demand for cleaner energy grows, Africa's natural gas sector will play a key role in shaping the future energy landscape.

Coal:

- Africa continues to play a significant role in the global coal market, with substantial reserves and production, especially in countries like South Africa, Mozambique, and Botswana. South Africa remains the continent's largest exporter, while Mozambique's coal production is growing, with new projects like the Benga coal project increasing export potential. As global demand for coal remains steady, particularly in Asia, Africa's coal industry is positioned to remain a key contributor to global energy markets.



		OCTOBER	NOVEMBER	DECEMBER	JANUARY
Crude Oil	(USD/boe)	75.70	74.40	73.80	77.80
Natural Gas	(USD/boe)	12.80	12.21	17.53	23.77
Coal	(USD/boe)	13.92	13.59	12.39	11.36

Crude oil prices saw a slight increase in January, likely driven by a rebound in global demand after the holiday season and temporary supply disruptions. Seasonal trends and geopolitical factors may have also influenced market movements.

Natural gas prices surged as winter demand for heating rose sharply in key markets. Supply constraints and geopolitical challenges affecting trade routes may have further pushed prices higher.

Coal prices, however, declined as demand eased following peak winter consumption. The continued growth of renewable energy sources may have contributed to this trend, alongside strong Australian coal exports and shifting trade dynamics.

These energy price shifts had a mixed impact on Africa. The sharp rise in natural gas prices added to energy affordability challenges, while the increase in crude oil prices raised fuel import costs. On the other hand, the drop in coal prices provided some relief in certain sectors.

Industry Milestone 1

Sector Report | Issue #02 | 15/02/2025

South African Nuclear Exploration:

Context:

This Month, South Africa advanced its nuclear energy ambitions by considering proposals from Russia and Iran to expand its civilian nuclear capacity. This move comes amid an ongoing electricity crisis and a growing push for low-carbon energy solutions. South Africa aims to add 2,500 megawatts to its grid to help meet growing demand and reduce reliance on coal.

Significance:

South Africa's nuclear expansion is a major step towards diversifying its energy mix and addressing persistent power shortages. By adding 2,500 megawatts of nuclear capacity, the country aims to stabilise its electricity supply, reduce carbon emissions, and enhance energy security. This initiative positions South Africa as a leader in clean energy development on the continent, reinforcing its role in Africa's transition to a more sustainable energy future. The potential involvement of Russia and Iran also highlights the growing importance of international partnerships in advancing Africa's energy infrastructure.

Key Potential Beneficiaries:

South Africa's Energy Sector: South Africa's nuclear expansion will enhance its energy security and support economic growth by providing a reliable, low-carbon power source. The new nuclear capacity will reduce dependency on coal, helping the country meet rising electricity demand and attract investment in clean energy technologies.

African Energy Market: As one of Africa's leading energy producers, South Africa's move to increase nuclear capacity sets a precedent for other nations considering nuclear energy. The expansion will help stabilise regional energy markets, promote energy diversification, and foster economic development across Southern Africa.

Global Energy Transition: The expansion of South Africa's nuclear energy capacity aligns with global efforts to transition to cleaner energy sources. By reducing carbon emissions through nuclear power, South Africa's role as a renewable energy leader in Africa strengthens, contributing to international climate goals and global energy sustainability.

Relevant Data:

- **Nuclear Capacity Addition:** South Africa plans to add 2,500 megawatts of nuclear power to its grid.
- **Electricity Shortages:** South Africa has faced significant power shortages, prompting the need for alternative energy solutions.
- **Carbon Emissions Reduction:** The expansion will contribute to the country's efforts to reduce reliance on coal and lower its carbon footprint.
- **Energy Security:** The nuclear project will help stabilise South Africa's energy supply and reduce vulnerability to energy shortages.
- **International Partnerships:** Potential involvement of Russia and Iran highlights the growing role of global partnerships in South Africa's energy expansion.

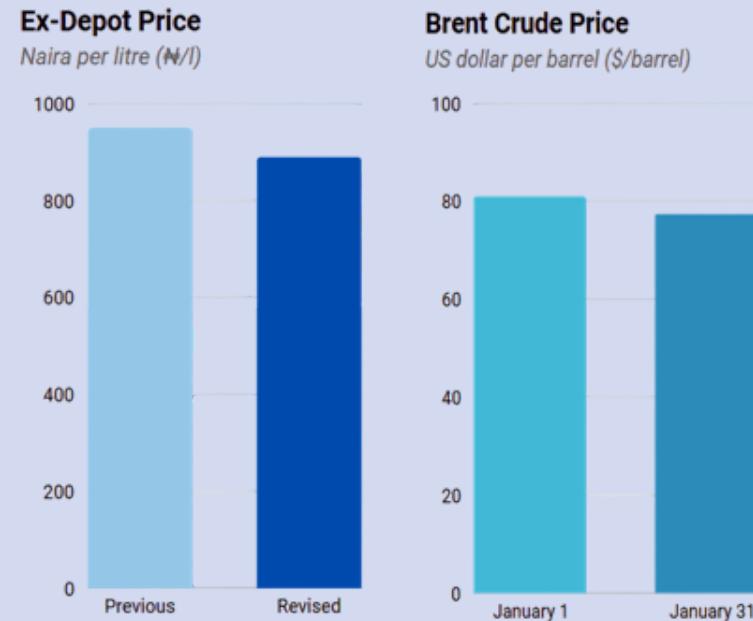
Industry Milestone 2

Sector Report | Issue #02 | 15/02/2025

Dangote Refineries price reduction:

In February 2025, Nigeria's Dangote Petroleum Refinery announced a reduction in the ex-depot price of Premium Motor Spirit (PMS), commonly known as petrol, from ₦950 to ₦890 per litre. This strategic adjustment, effective from February 1, 2025, was a direct response to the positive outlook within the global energy and gas markets, as well as the recent reduction in international crude oil prices.

The reduction in petrol loading costs by Dangote Refinery reflects the ongoing fluctuations in global crude oil markets. Brent crude, the international benchmark, was traded at \$77.48 per barrel on January 31, 2025, marking a reduction from \$81 per barrel recorded in early January. This move aligns with the refinery's commitment to transparency and fairness, aiming to pass on the benefits of lower crude prices to consumers.



Significance:

This price reduction is expected to have a meaningful impact on the cost of petrol nationwide, potentially driving down the prices of goods and services and reducing the overall cost of living. Given that fuel prices are a major determinant of transportation and production costs, this adjustment could ease inflationary pressures and improve the purchasing power of consumers.

By aligning its pricing with global market trends, Dangote Refinery not only reinforces its role in stabilising the domestic fuel market but also strengthens Nigeria's broader economic resilience. Lower fuel costs could contribute to enhanced business confidence, particularly in sectors heavily reliant on transportation and logistics, such as agriculture, manufacturing, and retail.

Furthermore, this move highlights Nigeria's progress toward self-sufficiency in refined petroleum products, reducing dependency on costly fuel imports and mitigating the economic vulnerabilities associated with currency fluctuations and global supply chain disruptions. As Nigeria continues its transition into a leading oil refining and export hub, such initiatives bolster investor confidence and position the country as a key player in the African and global energy markets.

Key Potential Beneficiaries:

- **Nigerian Consumers:** The reduction in petrol prices is anticipated to lower transportation costs, leading to decreased prices for goods and services, thereby easing the financial burden on households.
- **Local Businesses:** With reduced fuel costs, operational expenses for businesses are expected to decline, potentially leading to increased profitability and the ability to offer more competitive pricing.
- **National Economy:** Lower fuel prices can stimulate economic activities by increasing consumer spending and reducing production costs, contributing to overall economic growth.

Relevant Data for Visualisation:

- Previous Ex-Depot Price: ₦950 per litre --> Revised Ex-Depot Price: ₦890 per litre
- Brent Crude Price (Early January 2025): \$81 per barrel ---> Brent Crude Price (January 31, 2025): \$77.48 per barrel

Industry Trends: Challenges & Opportunities

Sector Report | Issue #02 | 15/02/2025

Rising Nuclear Energy Exploration in Africa:

In January 2025, Africa's nuclear energy sector witnessed notable advancements, reflecting the continent's commitment to diversifying its energy mix and addressing power shortages. Total investments in nuclear energy projects for the month reached approximately \$400 million, marking a 5% increase from December 2024. A significant portion of this investment, about 40%, was directed towards Small Modular Reactors (SMRs), highlighting a strategic shift towards flexible and scalable nuclear solutions.

South Africa and Ghana emerged as frontrunners in this nuclear renaissance, exemplifying Africa's proactive approach to adopting advanced nuclear technologies.

For instance, South Africa has reaffirmed its dedication to expanding its nuclear capacity. The government is actively considering proposals from international partners, including Russia and Iran, to add 2,500 megawatts of new nuclear capacity.

This initiative aims to alleviate the nation's ongoing electricity shortages and reduce carbon emissions. Energy Minister Gwede Mantashe emphasised an open bidding process, inviting all potential partners to participate.

In parallel, Ghana has made significant strides by launching the continent's first SMR simulator at the University of Nuclear and Allied Sciences. This high-tech facility serves as a training and research hub for nuclear scientists, bolstering Ghana's human resource capabilities in the nuclear sector. Additionally, Ghana has partnered with the U.S.-based Regnum Technology Group to deploy a NuScale VOYGR-12 SMR plant, positioning the country as a pioneer in commercial advancements.

Key Drivers:

- **Government Initiatives:** Enhanced policy support and strategic partnerships in South Africa and Ghana have been instrumental in advancing nuclear energy projects.
- **Technological Advancements:** The development and adoption of SMRs offer scalable and efficient nuclear energy solutions tailored to Africa's unique energy needs.

Key Projects:

- **South Africa:** The government's plan to add 2,500 megawatts of nuclear capacity through an open bidding process, inviting international collaboration.
- **Ghana:** Deployment of the NuScale VOYGR-12 SMR plant in partnership with Regnum Technology Group, marking a significant milestone in Africa's nuclear energy landscape.

Key Challenges:

Financial and Investment Barriers: While the \$400 million investment in January 2025 reflects progress, nuclear projects require significantly higher capital expenditures, often running into billions of dollars. The high cost of SMRs, despite their scalability, may deter widespread adoption without sufficient financial backing.

Regulatory and Policy Hurdles: The nuclear industry operates under stringent international regulations to ensure safety and security. Many African nations lack the robust regulatory frameworks needed to oversee nuclear development effectively. Establishing independent regulatory bodies, aligning with International Atomic Energy Agency (IAEA) standards, and ensuring public trust in nuclear governance will be crucial.

Technological and Infrastructure Constraints: Deploying nuclear energy, especially SMRs, requires specialised infrastructure, including reactors, cooling systems, and waste management facilities. Many African countries lack the necessary infrastructure and supply chain networks, leading to dependency on foreign expertise and materials. This reliance may increase costs and delay project timelines.

Skilled Workforce and Human Capital Development: While initiatives like Ghana's SMR simulator represent progress in capacity building, the continent still faces a shortage of nuclear scientists, engineers, and technicians. Developing a highly skilled workforce will require sustained investment in education, training programs, and international collaboration.

Relevant Data:

- Investment Growth:** \$400 million total nuclear energy investments in January 2025, a 5% increase from the previous month.
- SMR Funding Share:** 40% of total nuclear energy investments allocated to SMR projects.
- South Africa's Nuclear Expansion:** Plans to add 2,500 megawatts of new nuclear capacity to address energy shortages.

Our Editors:



Kenenna Okoli
Head of Energy



Edmund Poku
Head of Energy

Our Contributors:



Alec Williams
Internal Consultant



Iliriana Rexhepi
Head of Market Insights

Glossary:

Liquefied Natural Gas (LNG) – Natural gas that has been cooled to a liquid state for easier transport and storage, commonly used for international energy trade.

Small Modular Reactors (SMRs) – A new type of nuclear reactor that is smaller, more flexible, and often quicker to deploy than traditional large-scale nuclear power plants.

Ex-Depot Price – The cost at which fuel is sold by refineries or depots to fuel retailers before taxes and distribution costs are added.

Brent Crude – A major benchmark for global oil prices, representing a blend of crude oil extracted from the North Sea, commonly used to set oil prices worldwide.

