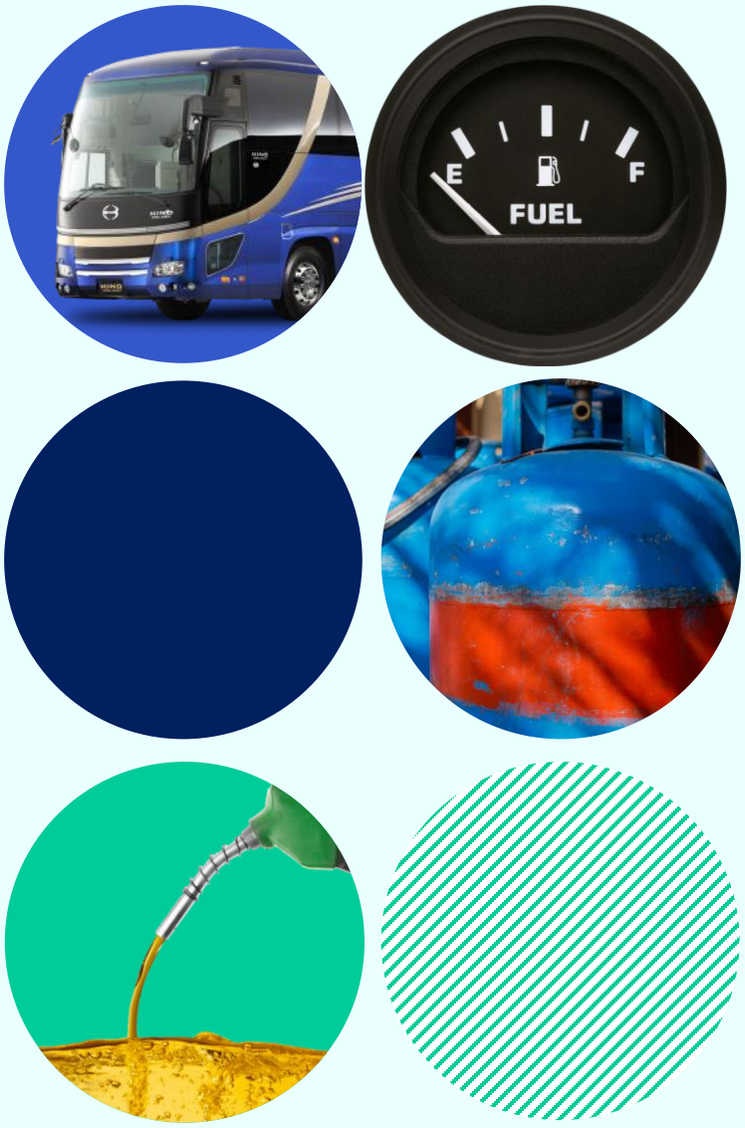
STREN & BLAN PARTNERS



The Future of Transportation in Nigeria: How the Compressed Natural Gas (CNG) Initiative will Transform the Sector.

www.strenandblan.com

Introduction

Nigeria's transport sector is set for a major transformation with the adoption of Compressed Natural Gas (CNG) as an alternative fuel. The removal of the petrol subsidy in 2023 has increased government initiatives like the Presidential Compressed Natural Gas Initiative (Pi-CNG) to promote CNG use. This shift offers numerous advantages, including reduced costs, lower carbon emissions, and less vehicle wear and tear and other benefits that appeal to both consumers and transport operators.

The shift to CNG aligns with Nigeria's broader goals of economic resilience, energy independence, and environmental sustainability. By reducing reliance on traditional fossil fuels which are mostly imported, CNG could save Nigeria billions annually and foster job creation through the development of CNG infrastructure.

Its lower carbon footprint also supports the country's commitment to global climate action and the Sustainable Development Goals (SDGs).

This move towards CNG marks a step towards a cleaner, more efficient, and economically viable future for Nigeria's transport sector. As the country navigates this transition, CNG could pave the way for a new era of sustainable energy use in transportation. This article examines the key government initiatives towards adopting CNG, the necessary compliance checks for CNG investors, benefits of CNG to the transport sector, its challenges and future considerations.

What is Compressed Natural Gas?

CNG is derived from compressing methane down to less than 1% of its volume. This is done by storing natural gas at baseline temperature and high pressure.[1] This compressed state allows for a higher energy density, making it an excellent fuel option for various applications, especially in the transportation sector.

It is a cleaner and safer alternative to traditional fuels like petrol or diesel. It is cost-effective, eco-friendly and produces lower carbon emissions than traditional fuels or petrol thereby making it a good option for reducing fuel costs and lowering carbon footprint.

The Adoption of CNG in Nigeria

CNG is not a new concept in Nigeria's energy and transport ecosystem. In 2010, Nigeria Independent Marketing Company (NIPCO) launched the country's first CNG for vehicular and sundry applications in Benin City.[2] However, with the removal of the petrol subsidy in 2023 by President Tinubu and the fluctuation in global oil prices, the use of CNG has gained significant attention as an alternative fuel source in the transport sector.

As part of Federal Government's Transportation policies, the Nigerian government has initiated several measures to promote the use of CNG-powered vehicles. The Key initiatives include:

a. **The Establishment of the Presidential Compressed Natural Gas Initiative (Pi-CNG):** [3] This was set up in 2023 by President Tinubu as part of its palliative intervention towards assisting the masses occasioned by transitive hardship of fuel subsidy removal policy. Its key action and objective are to assist the President in achieving its CNG goal of one million CNG vehicles by the end of 2027. [4] It aims to do so through its conversion incentive program, CNG platform program to finance 200,000 (two hundred thousand) new CNG buses and tricycles, the establishment of conversion centres, refuelling and virtual gas distribution program etc. This initiative also aligns with the presidential directive by strengthening domestic manufacturing, and local assembly, and generating a significant number of jobs.

1 Axxela, 'Uses and Benefits of Compressed Natural Gas' available at https://www.axxelagroup.com/uses-and-benefits-of-compressed-natural-gas/ accessed on 13th August, 2024.

2 Dubawa, ' All you need to know about Nigeria's alternate energy' available at https://dubawa.org/compressed-natural-gas-all-you-need-to-know-about-nigerias-alternate-energy/?amp=1 accessed on 13th August, 2024.

3 Presidential CNG Initiative: https://pci.gov.ng/ accessed on 13th August, 2024.

4 Business Day, 'FG targets one million CNG vehicles for Nigerian by 2027' available at https://businessday.ng/news/article/fg-targets-one-million-cng-vehicles-for-nigerians-by-2027/?amp accessed on 13th August, 2024.

b. **Partnerships and Collaborations:** The Government has partnered with several stakeholders in the transportation and energy sector such as Dana Motors, Portland Gas, Innoson Motors, The Depots and Petroleum Products Marketers Association of Nigeria (DAPPMAN) and the Nigerian National Petroleum Company Limited (NNPCL) and a host of others. These companies or agencies assist the government to achieve this goal by donating locally made CNG buses [5], offering free and subsidized CNG conversion to transporters[6], launching applications for easy conversion to CNG[7] etc. Several State governments like Lagos, Federal Capital Territory, Abia, Ondo etc are also making plans towards unveiling CNG buses, tricycles and motorcycles within their States.

c. **Tax Incentives:** In December 2023, the Federal Government through the Ministry of Finance issued a circular titled 'Fiscal Incentives for the Presidential Gas for Growth Initiative' granting import duty and Valued Added Tax (VAT) waiver for all CNG auto vehicles and kits including the equipment used to manufacture CNG vehicles in Nigeria.[8] This is to encourage the expansion of CNG vehicles in Nigeria.

d. **Concessionary Pricing of CNG Buses in Nigeria:** The Nigerian Midstream and Downstream Petroleum Regulatory Authority has designated mobility CNG as a special status, which will serve as a subset of gas-to-commercial (GTC). The special status will grant access for CNG to gas-based industry (GBI) pricing categorisation for an initial period of five years, and renewable for another five years, in line with the provisions of the Petroleum Industry Act (PIA) 2021. The price is set at $1.57 per one million British thermal units (MMBtu), significantly lower than the $2.42 and $2.92 for power and commercial buyers, respectively. [9] With these policies in place, which are expected to spur investor's confidence, there is no better time to key into the CNG transportation project.

How will the Use of CNG Transform Nigeria's Transport Sector?

The use of CNG is a game-changer in the transport sector and is viewed as an economic necessity for Nigeria. According to President of the Federal Republic of Nigeria, "Utilising natural gas to power Nigeria's transportation industry is the next way to go."

While CNG is still in the early stages of adoption in Nigeria, especially compared to countries like China, India, and the United States, the Nigerian government is making significant strides to establish CNG as a long-term solution for the transport sector. The potential benefits of CNG, if fully realised, could transform the Nigerian transport landscape in several keyways:

5 Punch, 'Tinubu unveils CNG buses in Abuja' available at https://punchng.com/tinubu-unveils-cng-buses-in-abuja/?amp accesssed on 13th August, 2024.
6 Punch, 'FG starts free CNG conversion for commercial vehicles' available at https://punchng.com/fg-starts-free-cng-conversion-for-commercial-vehicles/?amp accessed
7 The Guardian, 'FG launches App for easy transition to CNG' available at https://guardian.ng/technology/fg-launches-app-for-easy-transition-to-cng/ accessed on 13th August, 2024.
8 PWC, ' MOF circular on VAT exemption' https://pwcnigeria.typepad.com/files/mof-circular-on-vat-exemption.pdf accessed on 13th August, 2024.
9 The Cable, 'FG secures discounted CNG prices from NMPDRA' https://www.thecable.ng/fg-secures-discounted-cng-prices-from-nmpdra/ accessed on 14th August 2024

a. **Reducing Transport Costs:** One of the key benefits of CNG to PMS (Petrol Motor Spirit) is its cost-effectiveness. The price of CNG is 40% cheaper than PMS and this cost advantage can translate into substantial savings for both consumers and transport operators. Currently, commercial vehicles account for about 80% of the country's petrol demand which costs trillions of naira each month but with the potential use of CNG, it reduces transport costs by up to 70% and delivers 40% savings to car owners.[10] This makes transportation more affordable and accessible and can lead to more CNG conversions.

b. **Lower Carbon Emissions:** High carbon emissions from vehicles contribute to air pollution and the transport sector is one of the major sources of pollutants like carbon dioxide. These pollutants degrade air quality and contribute to health problems and environmental pollution. By switching to CNG, which has a lower carbon footprint compared to traditional fossil fuels, Nigeria can reduce its greenhouse gas emissions. This shift supports the country's commitment to combating climate change and achieving the United Nations Sustainable Development Goals (SDGs) related to clean energy and climate action (SDG 7 and SDG 13).

c. **Lower Maintenance:** CNG vehicles are prone to less wear and tear when compared to petrol-powered vehicles. This leads to long-lasting use and a reduced need for repairs. In essence, it has lower maintenance costs, which benefits Nigerian commercial transporters and other vehicle users.

d. **Job Creation:** The growth of CNG will lead to the establishment of CNG conversion centres, refuelling stations and other distribution networks. The CNG value chain may include job opportunities for CNG conversion technicians, gas engineers and CNG equipment manufacturing and supply chain roles. This will increase economic growth by creating job opportunities within the transport **sector.**

e. **Business Opportunities for Local and Foreign Investors:** The CNG initiative presents a lucrative landscape for investors across different segments such as the Construction and operation of CNG filling stations, pipeline and distribution network development, CNG storage and transportation facilities and so much more.

f. **Reducing Dependence on Imported Fuels:** The use of CNG for transport will reduce the country's petrol imports by 5.5 billion litres and save $4.4 billion every year. This encourages the utilisation and production of locally sourced CNGs as well as locally manufactured CNG vehicles.

Key Compliance Checks for CNG Investors in Nigeria

The CNG Transportation Initiative, while promising, is still evolving as such, investors need to navigate a complex regulatory landscape.

1. **Licence and Permits:** Investors in the CNG transportation initiative will need to obtain necessary licences and permits from the National Midstream and Downstream Petroleum Regulatory Authority (NMDPRA) and the National Automotive Design and Development Council (NADDC), and follow any guidelines provided.

10 Leadership, 'Nigeria embraces CNG transportation as economic necessity-Tinubu' https://leadership.ng/nigeria-embraces-cng-transportation-as-economic-necessity-tinubu/ accessed on 13th August, 2024.

There are several categories of licences available, and the specific service being offered will determine the appropriate licence to be obtained. Additionally, all activities of these Investors must comply with Environmental Impact Assessment regulations set by the National Environmental Standards and Regulations Enforcement Agency (NESREA).

2. **Safety Standards:** Investors must adhere to the strict safety standards set by the Federal Road Safety Corps (FRSC) which is responsible for road safety, including regulations related to CNG vehicle conversion and operation and the Standard Organization of Nigeria (SON) that sets standards for CNG equipment and installations.

3. **Pricing and Distribution:** Investors must adhere to the pricing regulation set by the Nigerian Midstream and Downstream Petroleum Regulatory Authority to create fair and competitive pricing practices and further adhere to the regulations of the various distribution networks.

Challenges and Considerations

Despite the benefits of CNG and efforts by the Nigerian Government to adopt the use of CNG in Nigeria's transport sector, it has its challenges which include:

a. **Cost of Conversion:** While CNG is more affordable than Petrol Motor Spirit (PMS) in terms of fuel costs, the initial expense of converting existing vehicles to CNG can be quite high. For private individuals, it costs between N700,000 (seven hundred thousand naira) to N1.8 million (one million eight hundred thousand Naira) for conversion depending on the type of vehicle and the cylinder required.[11] This high cost discourages the use of CNG vehicles for private individuals despite its long-term benefits. Currently, the government provides free and subsidized conversions primarily for commercial transporters, leaving private vehicle owners to bear the full cost of conversion. To encourage wider adoption of CNG and make it accessible to more people, the government should consider extending subsidies or financial assistance to private vehicle owners as well.

b. **Limited Conversion Centers:** A look at the Pi-CNG website reveals that there are only 58 (fifty-eight) conversion centres with most of them located in Abuja, Lagos and Rivers State.[12] This shows that coverage is limited especially in the Northern and Eastern parts of Nigeria and may deter potential users from converting their vehicles to CNG. In line with this, the government is encouraged to construct more conversion centres in other states as this will bring the conversion closer to these persons and create job opportunities for persons within those areas.

11 Punch, 'FG starts free CNG conversion for commercial vehicles' https://punchng.com/fg-starts-free-cng-conversion-for-commercial-vehicles/?amp accessed on 13th August, 2024.
12 Presidential Compressed Natural Gas Initiative, 'Conversion Centers' https://pci.gov.ng/conversion- centers accessed on 13th August, 2024.

c. **Limited Refuelling Stations:** Like the problem we have highlighted with conversion centres, there are limited refuelling stations for vehicles that have converted to CNG with most of the stations located at Lagos and Abuja. The NNPC Limited has so far announced one partnership in the development of CNG Stations in Nigeria, as opposed to Tanzania, where 20 companies were partnered to build CNG stations in the country, through local investors and Joint Ventures between local and foreign investors.[13] Increasing the number of refuelling stations across the country will be critical to supporting the widespread adoption of CNG vehicles.

d. **Lack of Public Awareness and Acceptance:** Many Nigerians are unfamiliar with the concept of CNG and its benefits and this may lead to hesitance to adopt the conversion or concerns about the safety of the vehicles. In other to overcome this challenge, the Government, stakeholders and other individuals are encouraged to sensitize individuals especially those in regions without CNG refuelling stations or conversion centres about the long-term benefits of CNG vehicles and their safety. This may encourage its use and may lead to investments in the CNG sector by wealthy individuals in those areas.

Conclusion

The future of Nigeria's transport sector looks brighter with the adoption of CNG. The combined efforts of the Federal Government through the Pi-CNG, along with State Governments and key stakeholders, signal a significant shift towards a cleaner, more cost-effective, and resilient transportation system. This transition not only reduces reliance on traditional fuels but also lowers carbon emissions, aligning with global trends toward sustainability.

However, to fully harness the potential of CNG, it is essential to address the challenges that remain. Overcoming these obstacles will require a collaborative effort from the government, stakeholders in the transport and energy sectors, and the private sector. By expanding access to CNG infrastructure and addressing conversion costs and public awareness, Nigeria can transform its transport sector into a model of efficiency and sustainability. This transition will not only benefit the economy but also contribute to the country's environmental goals, positioning Nigeria as a leader in the adoption of CNG in Africa.

13 The Citizen, '20 companies allowed to build compressed natural gas stations in Tanzania' https://www.thecitizen.co.tz/tanzania/news/national/20-companies-allowed-to-build-compressed-natural-gas-stations-in-tanzania-4144834 accessed on 14th August 2024

About Stren & Blan Partners

Stren & Blan Partners is an innovative and dynamic Law Firm with a compelling blend of experienced lawyers and energetic talents. We are focused on providing solutions to our client's business problems and adding value to their businesses and commercial endeavours. This underpins our ethos as everything we do flows from these underlying principles.

Stren & Blan Partners is a full-service commercial Law Firm that provides legal services to diverse local and multinational corporations. We have developed a clear vision for anticipating our client's business needs and surpassing their expectations, and we do this with an uncompromising commitment to Client service and legal excellence.

Authors

Joseph Siyaidon
Team Lead
JosephSiyaidon
@strenandblan.com

Ifeanyi Ezechukwu
Associate
IfeanyiEzechukwu
@strenandblan.com

Chiemeka Ohajionu
Associate
ChiemekaOhajionu
@strenandblan.com

Ebube Okorji
Associate
EbubeOkorji
@strenandblan.com

Stren & Blan Partners

+234 (0)702 558 0053
3 Theophilus Orji Street, Off Fola Osibo Road, Lekki
Phase 1, Lagos, Nigeria

www.strenandblan.com
contact@strenandblan.com
@strenandblan