



A CRITICAL EVALUATION OF GAS UTILIZATION AND COMMERCIALIZATION PROVISIONS UNDER THE NIGERIAN NEW GAS LEGAL REGIME: A LEAP FROM OTHER CLIMES

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Abstract

The paper evaluated the commercialization and utilizations provisions under the Petroleum Industry Act, 2021. The Petroleum Industry Act 2021 marked a significant legislative reform in Nigeria's oil and gas sector, introducing a comprehensive framework for the management, regulation, and commercialization of petroleum resources. The paper adopted the doctrinal method of research with primary sources of information drawn from laws and decided cases, while secondary sources of information drawn from journal articles and internet sources. Prior regulatory frameworks failed to adequately address these issues, leading to inefficiencies in gas utilization and the underdevelopment of the domestic gas market. The PIA 2021 was enacted to resolve these issues by creating a new regulatory environment that incentivizes investment in gas infrastructure, promotes the development of the domestic gas market, and imposes stricter penalties for gas flaring. Despite the lofty goals set by the PIA, several challenges remain in achieving full-scale gas commercialization and utilization. Nigeria still faces significant infrastructure gaps, including a lack of pipelines, gas processing facilities, and storage systems. Without these, the transportation and distribution of gas remain difficult, limiting the ability to commercialize gas effectively. The provisions on gas flaring penalties and the shift towards gas utilization must contend with the socio-environmental realities of host communities. To enhance the effectiveness of the PIA's gas commercialization and utilization provisions, the following recommendations are proposed amongst others, the need for government to prioritize the development of gas infrastructure, particularly gas pipelines, processing plants, and storage facilities, to enable efficient gas distribution and commercialization, the newly established regulatory bodies must be empowered with adequate resources and training to ensure proper enforcement of the PIA's provisions.

Keywords: Gas, Utilization and Commercialization

1.0 Introduction

Natural gas is odourless. Due to this, a sour-smelling odorant is added before it is put into distribution gas pipelines to give it a distinct smell for safe use by consumers.² The fact is certainly, analogous to Nigeria's 206.53 trillion cubic feet of proven natural gas reserves. Th reserves are located where it remains either uneconomic to produce gas or where is not sufficient infrastructure to transport gas to a processing plant. Consequently, while extracting crude oil, gas is flared or injected back underground. Nigeria's proven gas reserves are, thus, like an odourless natural gas, have little or no value and pose dangerous risks to the environment. In 2021, Nigerian President, Muhammadu Buhari, took to Twitter to declare the 'Decade of Gas' running from January 1, 2021, till 2030.³ Prior to this, 2020 was declared the 'Year of Gas'. These declarations affirm the government's goal to increase gas utility in all sectors. Nigeria's gas policies recognize a plausible transitioning of the country from an oil-based economy to

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² National Gas Policy, <National Gas Policy>accessed 25 June 2023.

³ Ibid.

a gas-based economy. This was reiterated in the ‘7 Big Wins’ a reformation policy issued by the Ministry of Petroleum Resources aimed at situating gas as a stand-alone commodity and promoting private investments in gas development. It accentuates a ‘Gas Revolution Plan’ to establish robust gas infrastructure and industries and to deploy a Liquefied Petroleum Gas penetration programme for both domestic and international markets.⁴ The Petroleum Industry Act, 2021 which scaled over a decade of legislative deliberations, portends a breakthrough for natural gas in Nigeria. The fiscal and governance aspects relating to natural gas are most apposite to consider. The Act allows for the bifurcation of the powers of the now defunct Department of Petroleum Resources into the new bodies, Nigerian Upstream Petroleum Regulatory Commission and the Nigerian Midstream and Downstream Petroleum Regulatory Authority.⁵ Within the spectrum of natural gas, the commission regulates gas exploration and production whilst the Authority regulates midstream and downstream gas supply, processing, storage, transportation, and distribution, inter alia. Furthermore, gas processing had a couple of reforms under the PIA.⁶ The Authority is empowered to issue a gas processing licence that would entitle an operator to construct and operate Liquefied Natural Gas Facilities. Concomitantly, a gas transportation licence issued by Authority is required before the construction of pipelines and related infrastructure. The Federal Ministry of Environment regulates matters relating to activities that may adversely affect the environment such as the installation of gas transportation and storage facilities. Also, building operating LNG facilities require an environmental impact assessment issued by the FMOE pursuant to the Environmental Assessment Act, 1992. The Nigerian Gas Transportation Network Code sets out the terms and conditions for connection to, interconnection with, access and use of the gas transportation network. Access to facilities is granted without discrimination and based on the availability of capacity in the facility. All gas transportation agreements by operators are required to migrate to the Network Code.⁷ To bolster the domestic supply of gas, the PIA introduces the Domestic Gas Delivery Obligation and empowers the Commission to allocate DGDOs to gas producers annually before 1st March and to establish the price at which gas is subject to the DGDO will be supplied.⁸ The DGDO ensures that gas under the gas supply obligation must be delivered by the producer to a location indicated by a gas purchase order issued by the domestic aggregator subject to the provisions of the PIA. Also, to promote investments in the gas sector, the PIA established the Midstream and Downstream Gas Infrastructure Funds to promote equity investments in midstream and downstream gas infrastructure, in furtherance of this, 0.5% of the wholesale price of petroleum products and natural gas sold in Nigeria is used to fund the MDGIF.⁹ Moreso, monies from gas flaring penalties are remitted to this fund.¹⁰ The PIA provisions on natural gas further extend to pricing mechanisms. The PIA establishes a progressive cost-reflective pricing framework with a structure for market intervention through domestic gas supply obligations and a wholesale natural gas market scheme. The establishment of the wholesale gas market was one of the long-term activities stipulated in the 2017 National Gas Policy.¹¹ Despite possessing abundant natural gas reserves, Nigeria’s international gas exports have not been impressive. Hence, one

⁴ PIA, 2021.

⁵ PIA, 2021, ss 4-28.

⁶ *Ibid.*

⁷ *Ibid.*, s 125.

⁸ PIA, 2021, s 110.

⁹ PIA, ss 125-130.

¹⁰ *Ibid.*

¹¹ *Ibid.*

of the fundamental policies of the Federal Government on natural gas is to grow and expand Nigeria's gas export markets. The Nigerian Liquefied Natural Gas Limited is a joint venture between the NNPC, Shell, Total and Eni responsible for the export of liquefied natural gas to international markets. However, because of the slow development of gas for domestic use, the NLNG in January this year announced plans to begin to supply 100% of its LPG production (propane and butane) to the Nigerian market, with the commencement of the Kaduna-Kano Gas Pipelines.

2.0 Natural Gas Sector Commercialization and Utilization in Nigeria under the PIA, 2021

i. Petroleum Industry Act, 2021

The primary objective of the PIA is ensuring good governance and accountability, creation of a commercially oriented national petroleum company, the NNPC Limited, and fostering a conducive business environment for petroleum operations.¹² Specifically, administration of midstream and downstream gas operations is provided for.¹³ Also, the PIA provides for gas flaring penalties, domestic gas delivery obligations and natural gas flare elimination plan.¹⁴ Furthermore, activities requiring a licence for midstream and downstream gas operations, rights of way relating to midstream and downstream gas operations, surface rights reserved for the Authority relating to midstream and downstream gas operations. Furthermore, as provided under the Act, subject to sections 111 and 125 of the Act, the Authority may upon approval of an application and payment of prescribed fees, grant and issue a qualified person a gas processing licence, which shall permit the person to install and operate the facilities, on its own account or on the basis of open access for customers as provided for under the act, such as gas conditioning plants, to condition natural gas removing CO₂, H₂S or other impurities, gas processing plants, to produce ethane, propane, butane, other natural gas liquids and marketable natural gas, gas to liquids plants, liquefied natural gas plants, ethane extraction and other plants, which in the opinion of the Authority, requires a gas processing licence.¹⁵

Further, the holder of a gas processing licence shall undertake the activities contemplated by the licence in a manner that complies with general obligations, such as to construct, operate and maintain its gas processing equipment and facilities, in an economical, safe, reliable and environmentally sustainable manner, shut down its facilities in emergencies and in order to carry out maintenance or in accordance with curtailment directives issued by the Authority.¹⁶ Additionally, the conditions applicable to gas processing licence, the holder shall not possess natural gas on its own account, where the licence is issued on an open access basis, a licensee customer, operating on its own account, who is also a wholesale customer or a holder of a gas distribution licensee, may own the natural gas in a gas processing plant, ethane extraction plant or other plant requiring a gas processing licence, where the principal user of the natural gas is the wholesale customer or gas distributor, subject to any third party access provisions as maybe included in the licence, the holder shall conduct its licenced activities safely and reliably in compliance with any law in force and any prescribed health and safety regulations, standards and operating procedures made under this or any other act and a licensee, operating on its

¹² PIA, 2021, s 2.

¹³ PIA, 2021, s 125-173.

¹⁴ PIA, 2021, s 104, 108, and 110.

¹⁵ PIA, 2021, s 129.

¹⁶ PIA, 2021, s 130 (a-h).



own account, being an affiliate of a lessee, may own, or the affiliate may own, the natural gas in a gas conditioning plant or gas processing plant for the purpose of conditioning or processing natural gas from the fields under the lease with the affiliate, subject to such third party access provisions as maybe included in the licence.¹⁷

Therefore, the holder of a bulk gas storage licence shall undertake to establish and make available gas to the public at its offices, construct, operate and maintain its facilities in a safe, economical, reliable and environmentally sustainable manner taking into account any strategic plans formulated by the Authority and where the licensee operates for its own account, grant to third parties the right to use or have access to capacity within its facilities for the purpose of ensuring competitive gas supply.¹⁸ Additionally, conditions applicable to a bulk gas storage license, a license operating on its own account, being an affiliate of a lessee, may own, or the affiliate may own, the natural gas in the bulk storage facilities for the purpose of storing natural gas from the fields of the affiliate, subject to such third party access provisions as may be prescribed in the license and a licensee operating on its own account, who is also a wholesale customer or holder of a gas distributor licence, may own the natural gas in the bulk storage facilities, where the principal user of the natural gas is the wholesale customer or gas distributor, subject to any third party access provisions as may be included in the licence.¹⁹

Thus, the holder of a transportation pipeline licence shall undertake to construct, operate, and maintain its gas transportations pipeline in safe, economical, and reliable manner taking into account any strategic plans, where the pipeline is operated on a common carrier basis, ensure development and operation of terms for access to the gas transportation pipeline in conjunction with the natural gas shipping community and where applicable comply with the relevant network code.²⁰ Also, some of the conditions applicable to a gas transportation pipeline licence includes that the holder shall not supply natural gas to customers on its own account where the licence is granted on a common carrier basis.²¹

Further, the holder of a gas transportation network operator licence, shall undertake to provide procedures, terms and conditions for obtaining and terminating access and interconnection services to the transportation network, operate an efficient and economical gas transportation network for the safe and reliable conveyance of natural gas in such a manner that is designed to meet all reasonable demands for natural gas transportation and as well enter into agreements with gas transportation pipelines owners, gas distributors and wholesale customers for connection to and operation of the gas transportation network.²²

A wholesale gas supplier shall undertake to provide a reliable supply of wholesale gas to wholesale customers who have entered into a gas purchase and sale agreement with the supplier, and abstain from activities, which in the opinion of the Authority may prevent, restrict or distort competition.²³ Additionally, a retail gas supply licensee shall undertake to sell or retail marketable

¹⁷ *Ibid*, s 131 (a-e).

¹⁸ PIA, s 133, (a-f).

¹⁹ *Ibid*.

²⁰ PIA, s 136 (a-h).

²¹ *Ibid*, s 137.

²² PIA, 2021, S 139 (a-h).

²³ *Ibid*, s 143.



natural gas to customers based on being a wholesale customer or third party access to gas distribution systems of gas distributors, establish, construct and operate facilities to deliver compressed natural gas and small scale facilities for liquefied natural gas, not requiring a gas processing licence, for transportation by truck, railcar or marine vessel to customers in compressed or liquified form, including customers using LNG as marine bunker fuel. Also, a company who is a licensee producing natural gas is a qualified person for the purpose of subsection (1) and shall be entitled to apply for and be issued with a retail gas supply licence by the Authority.²⁴ Additionally, a gas retailer shall undertake to shut down its gas compression and liquefaction facilities in emergencies in order to carry out maintenance or respond to curtailment directives issued by the Authority.

Further, gas distribution license shall undertake to develop, operate and maintain an economical gas distribution network for the safe and reliable conveyance of natural gas, ensure a reliable and efficient distribution of natural gas to customers on request, distribute and sell natural gas on request to a customer who is willing and able to pay for connection to the gas distribution network, subject to safety and network capacity constraints, connect all customers within its local distribution zone in accordance with regulations if economically practicable to do so and prepare a distribution terms and conditions of access to its gas distribution network as required and publish gas prices available to do so.²⁵ Also, a gas distributor shall possess the right to enter a premises for the purpose of reading the meters, testing and maintaining metering equipment, disconnecting customers and to remove its meters, recover, on the basis of an invoice, costs reasonably incurred in the provision of appropriate infrastructure, subject to any conditions imposed by the Authority to both the level and structure of a distributor's charge, provided that reasonably incurred costs shall include any amount paid to the Authority as a licence fee.²⁶ Additionally, a holder of a gas distribution license shall be responsible for conducting its licenced activities in a safe and reliable standard in compliance with prescribed management, health and safety related regulations, and as well marking, maintaining and securing the boundaries of the distribution pipelines constructed or other distribution infrastructure as prescribed.²⁷ Further, the board of domestic gas aggregator shall determine the fees for the services of the domestic gas aggregator and the fees shall be paid by the producer clients and customer clients in order to ensure self-financing of the domestic gas aggregator.²⁸ Notably, the domestic gas aggregator shall be a not-for-profit company limited by guarantee established under the Companies and Allied Matters Act, and also the company shall not be a company that is controlled by licensees or lessees of upstream petroleum operations or by wholesale customers or is an affiliate of such entities, provided that ownership of the company may be by a combination of licensees or lessees, wholesale customers and other interested parties, such as licensees of gas transportation pipelines and gas transportation networks.²⁹

The Domestic Gas Delivery Obligation (DDO) Regulations were issued in 2022 to promote the development of the domestic gas market in Nigeria³⁰. The DDO regulations require gas producers to

²⁴ PIA, 2021, s 146.

²⁵ PIA, 2021, s 149.

²⁶ *Ibid*, s 150 (a-c).

²⁷ *Ibid*.

²⁸ PIA, 2021, s 153 (1-3).

²⁹ PIA, 2021, s 155.

³⁰ DDO, 2022.

make available a certain percentage of their production for the domestic market. This is intended to ensure that there is enough gas available for use in the domestic market, such as for power generation and industrial applications³¹. The DDO regulations also set out the penalties that can be imposed on companies that fail to meet their delivery obligations³². The DDO regulations are a significant step towards ensuring that the domestic gas market in Nigeria is developed.³³ The DDO regulations contain several provisions that are relevant to energy transition and natural gas development in Nigeria. Firstly, the regulations require companies to submit annual domestic gas supply plans³⁴. This is intended to ensure that there is sufficient gas available for the domestic market. Secondly, the regulations require companies to submit annual reports on their progress towards meeting their domestic gas supply obligations. This allows for monitoring and enforcement of the regulations³⁵. Additionally, the regulations require companies to ensure that their gas supply contracts include provisions for the promotion of domestic gas utilization. Section 3 domestic gas supply plan, section 4 annual report on domestic gas supply plan, section 5, domestic gas utilization agreement, section 6 offences and Penalties, section 7 enforcement, section 8 domestic gas utilization committee, section 9 review of the regulation³⁶. While the Domestic Gas Delivery Obligation Regulations are a positive step towards developing the domestic gas market, there are some shortcomings that could impact the energy transition and natural gas development in Nigeria³⁷. Firstly, the regulations do not provide for any financial incentives for companies to supply gas to the domestic market³⁸. This could make it less attractive for companies to invest in domestic gas supply³⁹. Secondly, the regulations do not address the issue of capacity constraints in the domestic gas market. This could lead to delays in the development of the market. Thirdly, the regulations do not address the issue of stranded assets, such as underutilized gas pipelines⁴⁰.

Furthermore, the Midstream Gas Flare Regulations were introduced in 2022 to address the issue of gas flaring in the midstream sector of the oil and gas industry⁴¹. Gas flaring is the burning of natural gas that is released during the production of oil and gas. This process releases large amounts of greenhouse gases into the atmosphere⁴². The Midstream Gas Flare Regulations aim to reduce the amount of gas flaring and promote the utilization of associated gas. The regulations are designed to encourage companies to invest in gas utilization projects, such as gas processing plants. They also set out penalties for companies that fail to comply with the regulations⁴³. The Midstream Gas Flare Regulations cover a range of issues related to gas flaring, including defining what constitutes associated gas and flaring, setting out the requirements for gas flaring reduction plans, setting out the rules for the monitoring and reporting of gas flaring, setting out the rules for penalties for non-compliance with the regulations,

³¹ *Ibid.*

³² *Ibid.*

³³ DDO, 2022.

³⁴ DDO, 2022.

³⁵ DDO, 2022.

³⁶ DDO, 2022.

³⁷ *Ibid.*

³⁸ *Ibid.*

³⁹ *Ibid.*

⁴⁰ Midstream Gas Flare Regulations, 2022.

⁴¹ Midstream Gas Flare Regulations, 2022.

⁴² *Ibid.*

⁴³ *Ibid.*

establishing a Gas Flare Policy Coordinating Committee and regulations also set out a timeline for the implementation of the regulations.⁴⁴ There are a number of key sections in the Midstream Gas Flare Regulations that are relevant to energy transition and natural gas development section 1 of the regulations defines the scope and purpose of the regulations, section 2 sets out the definitions of key terms used in the regulations, section 3 sets out the requirements for companies to prepare and submit gas flaring reduction plans, section 4 sets out the requirements for companies to submit monthly reports on their gas flaring activities, section 5 sets out the rules for the monitoring and enforcement of the regulations, section 6 of the regulations is particularly relevant to energy transition and natural gas development⁴⁵. This section sets out the penalties for non-compliance with the regulations.

These penalties include financial penalties, as well as the suspension or revocation of licenses and permits. The penalties are designed to encourage companies to comply with the regulations and to discourage gas flaring, section 7 establishes a Gas Flare Policy Coordinating Committee to oversee the implementation of the regulations. This committee is tasked with monitoring compliance with the regulations and recommending revisions to the regulations, if necessary and finally, Section 8 of the regulations sets out the timeline for the implementation of the regulations⁴⁶. There are several potential shortcomings of the Midstream Gas Flare Regulations in terms of their impact on energy transition and natural gas development. First, the regulations only apply to gas flaring in the midstream sector. This means that gas flaring in the upstream and downstream sectors is not covered by the regulations. This could limit the effectiveness of the regulations in reducing gas flaring overall. Second, the regulations only apply to gas flaring from oil and gas production. They do not cover other sources of gas flaring, such as gas flaring from refineries.⁴⁷

3.2 Analysis of Gas Licensing Regime in Nigeria

The holder of a gas processing licence shall undertake the activities contemplated by the licence in a manner that complies with general obligations, such as to construct, operate and maintain its gas processing equipment and facilities, in an economical, safe, reliable and environmentally sustainable manner, shut down its facilities in emergencies and in order to carry out maintenance or in accordance with curtailment directives issued by the Authority.⁴⁸ Additionally, the conditions applicable to gas processing licence, the holder shall not possess natural gas on its own account, where the licence is issued on an open access basis, a licensee customer, operating on its own account, who is also a wholesale customer or a holder of a gas distribution licensee, may own the natural gas in a gas processing plant, ethane extraction plant or other plant requiring a gas processing licence, where the principal user of the natural gas is the wholesale customer or gas distributor, subject to any third party access provisions as maybe included in the licence, the holder shall conduct its licenced activities safely and reliably in compliance with any law in force and any prescribed health and safety regulations, standards and operating procedures made under this or any other act and a licensee, operating on its own account, being an affiliate of a lessee, may own, or the affiliate may own, the natural gas in a gas conditioning plant or gas processing plant for the purpose of conditioning or processing natural gas

⁴⁴ *Ibid.*

⁴⁵ Midstream Gas Flare Regulations, 2022.

⁴⁶ *Ibid.*

⁴⁷ *Ibid.*

⁴⁸ PIA, 2021, s 130 (a-h).



from the fields under the lease with the affiliate, subject to such third party access provisions as may be included in the licence.⁴⁹

The holder of a bulk gas storage licence shall undertake to establish and make available gas to the public at its offices, construct, operate and maintain its facilities in a safe, economical, reliable and environmentally sustainable manner taking into account any strategic plans formulated by the Authority and where the licensee operates for its own account, grant to third parties the right to use or have access to capacity within its facilities for the purpose of ensuring competitive gas supply.⁵⁰ Additionally, conditions applicable to a bulk gas storage license, a license operating on its own account, being an affiliate of a lessee, may own, or the affiliate may own, the natural gas in the bulk storage facilities for the purpose of storing natural gas from the fields of the affiliate, subject to such third party access provisions as may be prescribed in the license and a licensee operating on its own account, who is also a wholesale customer or holder of a gas distributor licence, may own the natural gas in the bulk storage facilities, where the principal user of the natural gas is the wholesale customer or gas distributor, subject to any third party access provisions as may be included in the licence.⁵¹

The holder of a transportation pipeline licence shall undertake to construct, operate, and maintain its gas transportations pipeline in safe, economical, and reliable manner taking into account any strategic plans, where the pipeline is operated on a common carrier basis, ensure development and operation of terms for access to the gas transportation pipeline in conjunction with the natural gas shipping community and where applicable comply with the relevant network code.⁵² Also, some of the conditions applicable to a gas transportation pipeline licence includes that the holder shall not supply natural gas to customers on its own account where the licence is granted on a common carrier basis.⁵³ Further, the holder of a gas transportation network operator licence, shall undertake to provide procedures, terms and conditions for obtaining and terminating access and interconnection services to the transportation network, operate an efficient and economical gas transportation network for the safe and reliable conveyance of natural gas in such a manner that is designed to meet all reasonable demands for natural gas transportation and as well enter into agreements with gas transportation pipelines owners, gas distributors and wholesale customers for connection to and operation of the gas transportation network.⁵⁴

A wholesale gas supplier shall undertake to provide a reliable supply of wholesale gas to wholesale customers who have entered into a gas purchase and sale agreement with the supplier, and abstain from activities, which in the opinion of the Authority may prevent, restrict or distort competition.⁵⁵ Additionally, a retail gas supply licensee shall undertake to sell or retail marketable natural gas to customers based on being a wholesale customer or third party access to gas distribution systems of gas distributors, establish, construct and operate facilities to deliver compressed natural gas and small scale facilities for liquefied natural gas, not requiring a gas processing licence, for

⁴⁹ *Ibid*, s 131 (a-e).

⁵⁰ PIA, s 133, (a-f).

⁵¹ *Ibid*.

⁵² PIA, s 136 (a-h).

⁵³ *Ibid*, s 137.

⁵⁴ PIA, 2021, S 139 (a-h).

⁵⁵ *Ibid*, s 143.



transportation by truck, railcar or marine vessel to customers in compressed or liquified form, including customers using LNG as marine bunker fuel. Also, a company who is a licensee producing natural gas is a qualified person for the purpose of subsection (1) and shall be entitled to apply for and be issued with a retail gas supply licence by the Authority.⁵⁶ Additionally, a gas retailer shall undertake to shut down its gas compression and liquefaction facilities in emergencies in order to carry out maintenance or respond to curtailment directives issued by the Authority.⁵⁷

Further, gas distribution license shall undertake to develop, operate and maintain an economical gas distribution network for the safe and reliable conveyance of natural gas, ensure a reliable and efficient distribution of natural gas to customers on request, distribute and sell natural gas on request to a customer who is willing and able to pay for connection to the gas distribution network, subject to safety and network capacity constraints, connect all customers within its local distribution zone in accordance with regulations if economically practicable to do so and prepare a distribution terms and conditions of access to its gas distribution network as required and publish gas prices available to do so.⁵⁸ Also, a gas distributor shall possess the right to enter a premises for the purpose of reading the meters, testing and maintaining metering equipment, disconnecting customers and to remove its meters, recover, on the basis of an invoice, costs reasonably incurred in the provision of appropriate infrastructure, subject to any conditions imposed by the Authority to both the level and structure of a distributor's charge, provided that reasonably incurred costs shall include any amount paid to the Authority as a licence fee.⁵⁹ Additionally, a holder of a gas distribution license shall be responsible for conducting its licenced activities in a safe and reliable standard in compliance with prescribed management, health and safety related regulations, and as well marking, maintaining and securing the boundaries of the distribution pipelines constructed or other distribution infrastructure as prescribed.⁶⁰ Further, the board of domestic gas aggregator shall determine the fees for the services of the domestic gas aggregator and the fees shall be paid by the producer clients and customer clients in order to ensure self-financing of the domestic gas aggregator.⁶¹ Notably, the domestic gas aggregator shall be a not-for-profit company limited by guarantee established under the Companies and Allied Matters Act, and also the company shall not be a company that is controlled by licensees or lessees of upstream petroleum operations or by wholesale customers or is an affiliate of such entities, provided that ownership of the company may be by a combination of licensees or lessees, wholesale customers and other interested parties, such as licensees of gas transportation pipelines and gas transportation networks.⁶²

The domestic gas aggregation licence may be renewed by the Authority for further period of 2 years in each instance until the attainment of liquidity in the domestic gas market, pursuant to the criteria of section 167 (3) of this Act, whereupon gas aggregation shall cease, and the domestic gas aggregation licence shall be determined by the Authority.⁶³ In sum, sections 125-145 of the PIA, 2021 deals with licensing requirements for gas operations. The Act establishes the Nigerian Midstream and Downstream

⁵⁶ PIA, 2021, s 146.

⁵⁷ *Ibid.*

⁵⁸ PIA, 2021, s 149.

⁵⁹ *Ibid.*, s 150 (a-c).

⁶⁰ *Ibid.*

⁶¹ PIA, 2021, s 153 (1-3).

⁶² PIA, 2021, s 155.

⁶³ PIA, 2021, s 153.

as the regulator responsible for issuing licenses for gas processing, transmission, and distribution. The Authority shall ensure that licenses comply with safety and environmental standards. Additionally, the provisions of sections 136-145 of the Act, focuses on the terms and conditions of gas licenses. The Act requires licensees to submit regular reports to the Authority and comply with any directives issued. Licensees are also required to pay fees and royalties as prescribed by the Authority; the act also provides for the revocation of the licenses in cases of non-compliance. Further, sections 146-155 of the Act, addresses the general provisions for gas licensing. The Act requires the Authority to maintain a register of licenses and ensure transparency in the licensing process. However, the act is handicapped by numerous challenges. Some of which includes ensuring compliance with the safety and environmental standards, balancing the interests of host communities, the environment, and licensees, and managing the licensing process to prevent corruption and ensure transparency.

In line with section 156 of the Act on gas purchase orders, the section requires that all gas purchase orders be issued in accordance with the provisions of the Act and regulations made by the NMDPRA. Thus, a gas purchase order is merely a contractual agreement between a buyer and a seller for the purchase of natural gas. The order must specify the terms and conditions of the sale, including the quantity, price, delivery point, and duration of the contract. For instance, a power generation company, XYZ limited, issues a gas purchase order to a gas supplier, ABC limited, for the purchase of 100,000 MMBtu for a period of one year. Also, the section provides that the NMDPRA shall develop and publish a standard gas purchase order template to ensure consistency and transparency in gas transactions. This template shall include provisions for payment terms, delivery scheduling, measurement and quality standards, and dispute resolution mechanisms. For instance, the NMDPRA develops a standard gas purchase order template that includes provisions for payment within 30 days of delivery, scheduling of deliveries monthly, and measurement of gas quality in accordance with industry standards. Gas buyers and sellers are required to use this template for all gas purchase orders, ensuring consistency and reducing the risk of disputes. Disputes in gas sector could range from a gas producer disputing over tariff charged by a pipeline operator for transportation, a shipper may dispute the allocation of pipeline capacity by the pipeline operator, and an end user may dispute the quality of gas supplied by a shipper. In relation to dispute resolution, as provided for under section 163 of the Act, a framework for resolving disputes related to access to gas infrastructure, such as pipelines and processing facilities. The section empowers NMDPRA to mediate disputes between parties, involving gas infrastructure over access, between gas producers and pipeline operators, pipeline operators and shippers and arbitration if mediation fails, and appeal to the Federal High Court.⁶⁴

3.0 Tax Incentives and Reliefs

Tax incentives and reliefs play a crucial role in attracting investment and promoting growth in Nigeria's natural gas sector.⁶⁵ The Petroleum Industry Act (PIA) 2021 has introduced several fiscal measures to encourage investment, boost local content, and ensure the sustainable development of the sector. ⁶⁶The PIA has introduced more competitive fiscal terms for the natural gas sector, including reduced royalties

⁶⁴ PIA, 2021, s 163-168.

⁶⁵ S C Dike and E Ehie, 'Appraising the Layers of Governance under the Petroleum Industry Act, 2021' [2022] (6) *African Journal of International Energy and Environmental Law* 113-130.

⁶⁶ *Ibid.*

and taxes to make investments more attractive. Royalties for gas production are generally lower compared to those for oil, reflecting the government's strategy to incentivize gas utilization and development.⁶⁷ The PPT rate for natural gas operations is lower than that for oil, encouraging investment in gas projects. Companies investing in the gas sector can benefit from ITA, which provides deductions on qualifying capital expenditures.⁶⁸ Companies may also be eligible for ITC, allowing them to claim a percentage of their investment as a tax credit against their taxable income. Companies engaged in gas operations can claim capital allowances on qualifying capital expenditures, reducing their taxable income. The PIA provides for tax holidays for new gas projects, allowing companies to operate tax-free for an initial period. This can significantly enhance the attractiveness of gas investments by reducing initial financial burdens. Tax holidays may be granted for up to five years, depending on the nature and location of the project.⁶⁹

Furthermore, companies involved in the export of natural gas, particularly Liquefied Natural Gas (LNG), may benefit from export incentives, including reduced taxes on export income.

The PIA encourages the commercialization of gas that would otherwise be flared by offering tax incentives for investments in gas utilization projects. Companies investing in R&D activities related to the gas sector can claim tax deductions on qualifying R&D expenditures.⁷⁰ Companies that meet or exceed local content requirements may be eligible for additional tax incentives and reliefs. Incentives are designed to encourage the use of local goods, services, and labour, thereby boosting local economic development. However, the tax incentives and reliefs come with complex eligibility criteria and compliance requirements, which may be challenging for companies to navigate. In sum, tax incentives and reliefs under the PIA are designed to attract investment, promote local content, and support the sustainable development of Nigeria's natural gas sector.⁷¹ These incentives include reduced royalties and taxes, investment allowances, tax holidays, export incentives, and R&D deductions. However, the effectiveness of these incentives depends on clear guidelines, efficient regulatory coordination, and regular policy reviews to ensure they remain competitive and beneficial for both investors and the Nigerian economy.⁷²

4.0 Analysis of the Finances and Developing Commitment to Gas Infrastructural Development in Nigeria

Financing and developing infrastructure for Nigeria's natural gas sector involve navigating a complex legal landscape that includes regulatory frameworks, contractual arrangements, and financing structures. The Petroleum Industry Act (PIA) 2021 and other related laws play a pivotal role in shaping the legal aspects of infrastructure development. The PIA establishes the Nigerian Upstream Petroleum Regulatory Commission (NUPRC) and the Nigerian Midstream and Downstream Petroleum Regulatory

⁶⁷ *Ibid.*

⁶⁸ *Ibid.*

⁶⁹ *Ibid.*

⁷⁰ T Kolade, 'Unlocking Nigeria's Gas Potential through Legislative Actions' [2022] (3) *Energy Law Journal* 112-129.

⁷¹ I O Aigbedion, 'Fiscal Incentives and Regulatory Reforms in the Nigerian Natural Gas Sector' [2022] (40) *Journal of Energy and Natural Resources Law* 150-167.

⁷² *Ibid.*



Authority (NMDPRA) to oversee the natural gas sector.⁷³ The PIA outlines the procedures for obtaining licenses and permits required for gas infrastructure projects, ensuring transparency and regulatory compliance. Projects must comply with EIA requirements under the Environmental Impact Assessment Act, ensuring that environmental and social impacts are assessed and mitigated. The legal aspects of financing and developing infrastructure for Nigeria's natural gas sector are multifaceted, involving regulatory compliance, contractual arrangements, financing structures, and risk management. The PIA 2021 and other relevant laws provide a comprehensive framework, but challenges remain in navigating regulatory complexities, ensuring legal and political stability, and meeting local content requirements.⁷⁴

5.0 Lessons from the United Kingdom

Nigeria can draw several valuable legal lessons from the United Kingdom (UK) to enhance its legal framework for deepening investment in the natural gas sector.

5.1.1 Stability and Predictability

Establishing a stable and predictable regulatory environment is crucial for attracting and retaining investors. The UK's regulatory framework for its natural gas sector is characterized by stability and consistency. Regulatory bodies like the Office of Gas and Electricity Markets (Ofgem) provide clear and predictable regulations that give investors confidence in long-term commitments. Nigeria can enhance its investment climate by ensuring regulatory stability and minimizing frequent changes in laws and policies, which can deter investment.⁷⁵

5.1.2 Transparent Licensing and Permitting Processes

Implementing transparent and efficient licensing and permitting processes streamlines investment activities. In the UK, the process for obtaining licenses and permits for natural gas operations is well-defined and transparent, managed by bodies such as the Oil and Gas Authority (OGA). This transparency reduces administrative delays and fosters investor trust. Nigeria can improve its investment environment by simplifying and clarifying its licensing and permitting processes, making them more accessible and predictable for investors.⁷⁶

5.1.3 Effective Regulatory Oversight and Enforcement

Strong regulatory oversight and enforcement mechanisms ensure compliance and protect investor interests. The UK's natural gas sector benefits from robust oversight by regulatory authorities like Ofgem and the OGA, which monitor compliance, enforce regulations, and address disputes effectively. This oversight helps maintain market integrity and investor confidence. Nigeria can strengthen its regulatory framework by enhancing the capacity of its regulatory bodies to enforce rules and resolve issues efficiently.⁷⁷

⁷³ I O Aigbedion, 'Fiscal Incentives and Regulatory Reforms in the Nigerian Natural Gas Sector' [2022] (40) *Journal of Energy and Natural Resources Law* 150-167.

⁷⁴ *Ibid.*

⁷⁵ N A Uche, 'Governance and Regulatory Frameworks for Natural Gas under the PIA' [2022] (14) *International Journal of Oil, Gas and Coal Technology* 212-229.

⁷⁶ *Ibid.*

⁷⁷ *Ibid.*



5.2 Lessons from Norway

Norway's approach to managing its natural gas sector offers several valuable legal lessons that Nigeria can apply to enhance its own investment framework. Norway's legal and regulatory environment has successfully attracted significant investment and facilitated robust sector development.

5.2.1 Clear and Comprehensive Legal Framework

Develop a clear and comprehensive legal framework that covers all aspects of the natural gas sector. Norway has established a well-defined legal framework for its oil and gas sector, including comprehensive laws and regulations that address exploration, production, environmental protection, and resource management.⁷⁸ The Petroleum Act, the Petroleum Taxation Act, and other regulations provide clarity and predictability for investors. Nigeria should ensure that its legal framework, including the Petroleum Industry Act (PIA), is comprehensive and covers all critical aspects of the natural gas sector. This includes detailed regulations for exploration, production, environmental management, and fiscal terms. Clear and well-structured laws can enhance investor confidence and reduce legal uncertainties.⁷⁹

5.2.2 Strong Regulatory Oversight and Transparency

Implement robust regulatory oversight and maintain high levels of transparency in regulatory processes. Norway's regulatory body, the Norwegian Petroleum Directorate (NPD), and the Ministry of Petroleum and Energy provide strong oversight and ensure transparency in the management of natural resources. The NPD's role includes monitoring compliance, managing resource allocation, and providing transparent information to stakeholders. Therefore, Nigeria can strengthen the role of its regulatory bodies by ensuring they have the authority, resources, and independence needed to enforce regulations effectively. Increasing transparency in regulatory processes and decisions can build trust with investors and stakeholders.⁸⁰

6.0 Conclusion

The legal framework for deepening investment in Nigeria's natural gas sector has made significant strides with the implementation of the Petroleum Industry Act (PIA) 2021, the National Gas Policy (NGP), and the Gas Master Plan (GMP). These legislative measures have aimed to provide clarity, stability, and transparency, thereby enhancing the investment climate. However, challenges remain, including regulatory inconsistencies, infrastructural deficits, and bureaucratic inefficiencies. To fully realize the sector's potential, Nigeria must address these issues by ensuring stable and predictable fiscal policies, strengthening regulatory institutions, and enhancing infrastructure development. Drawing lessons from established gas sectors like those of the UK and Norway, Nigeria can further refine its legal and institutional frameworks to attract sustainable investment, foster technological innovation, and drive growth in its natural gas sector. Implementing these improvements will not only boost investor confidence but also contribute to the broader economic development and energy security of the nation.

⁷⁸ E Ekhatior, 'Midstream and Downstream Gas Regulation in Nigeria Post-PIA' [2021] (65) *Journal of African Law* 167-183.

⁷⁹ *Ibid.*

⁸⁰ *Ibid.*

7.0 Recommendations

The dissertation provided the following recommendations:

1. Ensure Regulatory Stability and Predictability

Establish and maintain a stable and predictable regulatory environment to enhance investor confidence. Frequent changes in regulations and policies create uncertainty and deter long-term investments. Nigeria should commit to a stable legal framework with clear and consistent regulations, as seen in the UK's and Norway's gas sectors. This includes adhering to the provisions of the Petroleum Industry Act (PIA) 2021 and ensuring that any future amendments are carefully considered and communicated well in advance.

2. Streamline Licensing and Permitting Processes

Simplify and clarify the licensing and permitting processes to reduce bureaucratic delays and increase transparency. The current processes can be cumbersome and time-consuming, discouraging potential investors. Nigeria can take cues from Norway's transparent and efficient system managed by the Norwegian Petroleum Directorate (NPD). Implementing a streamlined, one-stop-shop approach for licenses and permits can make it easier for investors to navigate the regulatory landscape and commence operations more quickly.

3. Enhance Infrastructure Development

Invest in and facilitate the development of critical infrastructure to support the natural gas sector. Inadequate infrastructure, such as insufficient pipelines and processing facilities, hampers the efficient utilization and distribution of natural gas. The government should prioritize public-private partnerships (PPPs) and provide incentives for private sector investments in infrastructure projects. Drawing on the UK's experience with robust infrastructure support can help Nigeria build a more resilient and efficient gas network.

4. Promote Environmental and Safety Standards

Enforce rigorous environmental and safety standards to ensure sustainable and responsible development of natural gas resources. Adopting and enforcing comprehensive environmental and safety regulations can mitigate the adverse impacts of natural gas activities and ensure long-term sustainability. Nigeria should follow Norway's example, which mandates strict environmental assessments and safety protocols. This approach not only protects the environment but also enhances the sector's reputation, making it more attractive to socially responsible investors.