



## ASSESSING THE ROLE OF THE NIGERIAN MIDSTREAM AND DOWNSTREAM PETROLEUM REGULATORY AUTHORITY IN ADVANCING GAS UTILIZATION

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### Abstract

*Nigeria possesses one of the world's largest gas reserves at about 200 trillion cubic meters. However, effective utilisation of this resource, has been hindered by infrastructural deficiencies, inconsistent policies, and inadequate regulation. The establishment of the Nigerian Midstream and Downstream Petroleum Regulatory Authority under the Petroleum Industry Act, 2021 aims to tackle these issues by encouraging investment, enhancing operational efficiency, and advocating for the use of domestic gas. This article thus considered the role of the government through the Nigerian Midstream and Downstream Petroleum Regulatory Authority in advancing gas utilization in Nigeria. With the aid of the doctrinal research methodology, it was revealed that the Authority was created under the Petroleum Industry Act 2021, to run the mid-downstream oil and gas industry efficiently. While the Authority's role in advancing gas utilization has been visible through gas licensing, pricing regulations, infrastructure improvement, partnerships with private sectors and investors in embarking on gas transmission, transportation and distribution projects, the challenges of lingering gas supply shortages, vandalism and pipeline sabotage, among others, hinder the Authority from performing this role optimally. But these challenges are not insurmountable. This article therefore recommended further public-private participation, regulatory streamlining and implementation and infrastructural investments which if implemented will boost gas utilization in Nigeria creating a pathway for it to become the gas-based industrial economy it dreams of.*

**Keywords:** *Nigerian Midstream and Downstream Petroleum Regulatory Authority, gas utilization, Petroleum Industry Act 2021*

### 1.0 Introduction

Nigeria's gas sector has gained increasing importance in the nation's energy landscape and its overall economy.<sup>1</sup> This is due to the fact that the benefits associated with gas are too numerous to ignore especially in our contemporary world where cleaner energy, energy independence, economic diversification, industrialization are key for any country's growth and sustainable development.<sup>2</sup> Nigeria has extensive gas reserves. With proven reserves of up to 200 trillion cubic feet, the country stands as the eight largest gas reserve holders globally and the largest in Africa.<sup>3</sup>

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<sup>1</sup> Sunday O. Oyedepo, 'Energy and Sustainable Development in Nigeria: The Way Forward' (2012) 2 (15) *Energy, Sustainability and Society* 3; Kingsley Jeremiah, 'Powering Nigeria's Industrialization through Natural Gas' (Guardian: 20<sup>th</sup> September, 2023). <<https://guardian.ng/energy/powering-nigerias-industrialisation-through-natural-gas/>> Accessed 25<sup>th</sup> June, 2025.

<sup>2</sup> Chikezie Nwaoha and David A. Wood, 'A Review of the Utilization and Monetization of Nigeria's Natural Gas Resources: Current Realities' (2014) 18 *Journal of Natural Gas Science and Engineering* 412-432.

<sup>3</sup> Odinaka Anudu, 'Nigeria's Gas Reserves hit Record 210.5trn Cubic Feet, to Last 93 Years – NUPRC' (Business Day: 12<sup>th</sup> April 2025). Accessed 25<sup>th</sup> June, 2025; Charles A. Odumugbo, 'Natural Gas Utilization in Nigeria: Challenges and Opportunities' (2010) 2 (6) *Journal of Natural Gas Science and Engineering* 310-316; Marcus-Okoko & Co, 'A Brief Overview of the Law and Development of Gas in Nigeria' (Mondaq: 20<sup>th</sup> October, 2022).

Natural gas was first discovered in Nigeria in the late 1950s during the initial period of crude oil discovery and exploration in Nigeria's Niger Delta region by the British colonialists.<sup>4</sup> Gas was, however, largely underutilized due to the lack of domestic gas market and infrastructure to harness and utilize it on a large scale at the time,<sup>5</sup> resulting in routing flaring of gas produced in association with which polluted the region.<sup>6</sup> Thus, Nigeria did not benefit from its gas resources. While initial sparks of utilization appeared in the late 1960s-70s, when Shell started gas supplies to few industries, conscious efforts towards gas utilization only became visible by the 1980s-90s with the enactment of laws such as the Associated Gas Reinjection Act, 1979, establishment of gas centered projects such as the Nigeria Liquefied Natural Gas, among others.<sup>7</sup>

As time passed, especially into the 2000s, the need for gas utilization became more evident. The Nigeria Gas Master Plan, 2006, Nigeria Gas Policy, 2017 and projects sprung up.<sup>8</sup> The enactment of the Petroleum Industry Act 2021 was hailed as a reform particularly for Nigeria's gas sector because it made sweeping provisions for the gas sector that if implemented would guarantee robust gas utilization for the nation's growth and development. Within these reforms was the creation of the Nigerian Midstream and Downstream Regulatory Authority (NMDPRA). The Authority was generally created to regulate the mid-downstream sector, but relative to the gas sector, it was created to oversee the mid-downstream gas sector, new gas licensing regime, ensure security of supply of gas, provide the Upstream Commission with domestic gas demand requirement, among others.<sup>9</sup>

The roles of the Authority in advancing gas utilization in Nigeria is what this article analyzes, providing an insight into the past inadequacies and inefficiencies associated with the Department of Petroleum Resources which was the former regulator of Nigeria's oil and gas industry.<sup>10</sup> Failing to achieve optimal gas utilization, as part of the Agency's inefficiencies, the need for reform was necessary which gave birth to the Mid-Downstream Authority. This article investigates how well the Authority has played its role in advancing gas utilization, the challenges faced, going ahead to provide recommendations towards optimal gas utilization in Nigeria which is essential for the nation's economic growth and overall development.

## **2.0 Overview of Nigerian Midstream and Downstream Petroleum Regulatory Authority**

The existence of the Nigerian Midstream and Downstream Petroleum Regulatory Authority cannot be well discussed without scaling back to its preconception, to the subsistence of the Department of Petroleum Resources. The Department of Petroleum Resources was created in 1970 under the Federal

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<<https://www.mondaq.com/Nigeria/oil-gas-electricity/1241936/a-brief-overview-of-the-law-development-of-gas-in-nigeria>> Accessed 25<sup>th</sup> June, 2025.

<sup>4</sup> A. C. Areremi and C. Emaviwe, 'The Evolution of Gas Development and Utilization in Nigeria' (2023) 1 (1) *KB Law Scholars Journal* 1-23.

<sup>5</sup> Francis I. Ibitoye, 'Ending Natural Gas Flaring in Nigeria's Oil Fields' (2014) 7 (3) *Journal of Sustainable Development* 13.

<sup>6</sup> Ibid.

<sup>7</sup> Areremi and Emaviwe (n. 4).

<sup>8</sup> H. Biose, 'Gas Production and Utilization in Nigeria: A Long-Term Perspective' (2019) 6 (5) *International Journal of Engineering Technologies and Management Research* 58-72.

<sup>9</sup> Nigeria Upstream Regulatory Commission, 'About Us'. <<https://www.nuprc.gov.ng/history-of-nuprc/>> Accessed 26<sup>th</sup> June, 2025.

<sup>10</sup> Alex Gboyega, 'Political Economy of the Petroleum Sector in Nigeria' World Bank Policy Research Working Paper No. 5779, 2016 27-28.



Ministry of Mines and Power to provide regulatory oversight over Nigeria's oil and gas sector<sup>11</sup> and was thus responsible for ensuring compliance with relevant petroleum related regulations and legislations. The Department, in 1975, became the Ministry of Petroleum and Energy which later became the Ministry of Petroleum Resources (MPR).<sup>12</sup> The MPR was merged with the Nigerian National Oil Company (NNOC) to become the Nigerian National Petroleum Corporation pursuant to the 1977 NNPC Decree.<sup>13</sup> Established within the NNPC was the Petroleum Inspectorate whose duties included the issuance of relevant licenses for various petroleum industry activities.<sup>14</sup>

In 1983, the MPR was re-established. The MPR was now separate from the NNPC but the Petroleum Inspectorate remained within the NNPC until 1988 when the NNPC was re-organized. The re-organization brought about the transfer of the Petroleum Inspectorate to the MPR as the Technical arm and became, again, the DPR, which again became the primary regulatory agency of upstream and mid/downstream operations in Nigeria. This bureaucratic nightmare turned out to be one of the most problematic challenges with Nigeria's oil and gas industry.<sup>15</sup>

The DPR as primary regulator of the petroleum industry was bedeviled by challenges which were visible in its failure to optimally regulate petroleum activities.<sup>16</sup> This may be said to be on account of the weak and outdated regulatory framework, overlapping roles and a saddle of conflict of interest as well as limited institutional capacity. The PIA 2021 came and established the Nigerian Upstream Petroleum Regulatory Commission (NUPRC) as the sole regulator for upstream petroleum activities<sup>17</sup> and the Mid-Downstream Petroleum Regulatory Authority as the sole regulator of mid-downstream operations replacing multiple agencies,<sup>18</sup> in a bid to ensure efficiency in regulatory processes, reducing bureaucracy.

The NMDPRA is established under Section 29 of the Petroleum Industry Act, 2021 as a body corporate, having the power to acquire property, sue and be sued and more importantly, is responsible for "the technical and commercial regulation of midstream and downstream petroleum operations in the petroleum industry."<sup>19</sup> Relative to gas sector, its development and utilization, the functions of the Authority include promoting natural gas supply and distribution, as well as ensuring for the domestic market, the security of natural gas supply.<sup>20</sup> Furthermore, the Authority is saddled with the duty to determine tariff methodology and provide pricing and tariff framework for mid-downstream gas operations including processing, storage, transportation and transmission of natural gas.<sup>21</sup> The Authority is also in charge of granting, renewing, or terminating licenses for mid-downstream gas operations. This

<sup>11</sup> NUPRC (n. 9). Accessed 26<sup>th</sup> June, 2025.

<sup>12</sup> Ibid.

<sup>13</sup> NNPC Decree 33 of 1977.

Nigeria Upstream Regulatory Commission, 'History'. <<https://www.nuprc.gov.ng/history-of-nuprc/>> Accessed 26<sup>th</sup> June, 2025.

<sup>14</sup> S. 10.

<sup>15</sup> S. C. Dike, E. Ehie and OD. Chukwuka, 'Appraising the Layers of Governance under the Petroleum Industry Act 2021' (2022) 6 (1) *African Journal of International Energy and Environmental Law* 164.

<sup>16</sup> Gboyega (n. 10).

<sup>17</sup> PIA 2021, Chapter 1, Part III.

<sup>18</sup> Part IV.

<sup>19</sup> S. 29 (3).

<sup>20</sup> S. 32.

<sup>21</sup> S. 32 (c).

function is the highlight of the PIA's 2021 gas sector provisions. This is because previous legislation did not provide for a streamlined licensing regime for mid-downstream gas development and utilization. The mid-downstream gas licenses introduced by the PIA 2021 includes gas processing license, bulk gas storage license, gas transportation pipeline license, gas transportation network operator license, wholesale and retail gas supply licenses, gas distribution license and domestic gas aggregation license.<sup>22</sup> This new licensing regime is robust and extensive and opens up more opportunities for investment in the gas sector towards extensive gas utilization in Nigeria.<sup>23</sup>

The Authority has powers to make regulations on mid-downstream operations on matters relative to gas development and utilization including matters concerning gas licensing, gas infrastructure, domestic natural gas supply and demand, security of natural gas supply, among others.<sup>24</sup> Furthermore, by virtue of Section 171 of the PIA 2021, the Authority is empowered to impose public service obligations, through regulations, on licensees on matters including economic development and security of supply.

The fiscal regime established under the PIA 2021 also makes provisions that are beneficial for gas development and utilization as regulated by the NMDPRA. Some of these provisions include the determining gas prices for the commercial, power and gas-based industrial sectors in accordance with pricing principles as stipulated.<sup>25</sup> Licensing fees are also to be paid by operators of mid-downstream gas operations licenses.<sup>26</sup> Additionally, under the Act, the NMDPRA is in charge of ensuring that funds meant for the Midstream and Downstream Gas Infrastructure Fund are promptly paid into the Fund's account.<sup>27</sup>

Some of the regulations enacted by the Authority since its establishment include the Midstream and Downstream Petroleum Operations Regulations, Gas Pricing and Domestic Demand Regulations, Natural Gas Pipeline Tariff Regulations, Gas Distribution Systems Regulations, among others.<sup>28</sup> The enforcement of the Authorities powers and functions are geared towards promoting much needed public and private participation in Nigeria's gas sector.

### **3.0 Gas Utilization in Nigeria: Background and Importance**

Natural gas is an energy resource that is abundant in Nigeria, the utilization of which holds massive advantages for the country. It can be said to be the cleanest burning fossil fuel, as burning it leaves less carbon emissions than crude oil if injected and utilized well.<sup>29</sup> Crude oil is composed of complex proportions of carbon and hydrogen atoms, with notable amounts of sulphur and nitrogen while natural gas, being mostly methane, is only comprised of one carbon atom and four hydrogen atoms and so it

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<sup>22</sup> PIA, 2021, Part IV, Chapter 2.

<sup>23</sup> Kibuebu J. Francis, 'An Appraisal of Gas Transmission and Transportation under the Petroleum Industry Act, 2021' (2024) 10 (1) *African Journal of International Energy and Environmental Law* 1-13.

<sup>24</sup> S. 33 PIA, 2021.

<sup>25</sup> S. 167-170.

<sup>26</sup> S. 33 (v).

<sup>27</sup> S. 52.

<sup>28</sup> NMDPRA, 'Gazetted Regulations.' <<https://nmdpra.gov.ng/Regulations>> Accessed 26<sup>th</sup> June, 2025.

<sup>29</sup> METGroup, 'Gas vs. Oil: Differences between Natural Gas and Crude Oil' (METGroup: 31<sup>st</sup> May, 2023). <<https://group.met.com/en/media/energy-insight/natural-gas-vs-oil/>> Accessed 26<sup>th</sup> June, 2025



leaves 30% less emissions than carbon when burned.<sup>30</sup> The environmental impact is therefore low, making gas a suitable transition fuel as renewable energy still develops in Nigeria.<sup>31</sup>

Gas is essential for the sustainable growth of the country's strategic sectors which are defined to include power, industry and commerce,<sup>32</sup> because these sectors are generally gas-based. Gas is one of Nigeria's main electricity sources.<sup>33</sup> According to Nigeria's Minister of Power, more than 70% of the nation's generated electricity came from gas plants, while the remaining came from hydro power and other sources.<sup>34</sup> Increasing gas investment in this sector is key to providing lasting power supply for the people. Similarly, since it is the goal of the nation's government to turn Nigeria into a thriving gas-based industrialized economy, the importance of gas utilization especially for industries and commerce cannot be overemphasized.

Over the decades, since the discovery of natural gas in Nigeria, gas utilization in Nigeria has steadily grown as the market for it has increased over time. Since the 1990s till date several gas utilization projects have been embarked upon, such as the NLNG project, West African Gas Pipeline Project, Escravos Gas to Liquids Project, Belema Gas Injection Project, OSO NGL Project, Ekpe Gas Compression Project, and Odigbo Node Gas Project to intensify gas development and utilization.<sup>35</sup> These projects geared towards increasing distribution and supply of gas for power, commerce, industry and also for exports have opened up further investment opportunities for gas development in Nigeria. Nigeria's recent "Decade of Gas Initiative" launched in 2021 another ambitious initiative by its government to transform Nigeria into a gas-powered economy by 2030 through public-private partnership geared towards investment in gas infrastructure, export, gas-to-industries and homes, investment in gas-to-power projects, thereby expanding gas utilization in the nation.<sup>36</sup>

Another emerging sector great for gas utilization is the transportation sector. In a bid to reduce overreliance on crude oil as a transport fuel and the overall environmental impacts of transportation on the environment, compressed natural gas has recently been eyed by Nigeria's federal government for road transportation. In fact, Compressed Natural Gas (CNG) Projects for domestic road transportation,<sup>37</sup>

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<sup>30</sup> Ibid.

<sup>31</sup> Ibid.

<sup>32</sup> S. 167 (1) PIA 2021.

<sup>33</sup> Doris D. Sasu, 'Electricity generated from Gas in Nigeria 2000-2023' (Statista: 15<sup>th</sup> August, 2024).

<<https://www.statista.com/statistics/1306632/electricity-generation-from-gas-in-nigeria/>> Accessed 26<sup>th</sup> June, 2025.

<sup>34</sup> Omono Okonkwo, 'As of 2022, 70.5% of our Electricity is from Gas, 27.3% from Hydro, 2.2% from Solar and Others – Adebayo Adelabu' (Nairametrics: 13<sup>th</sup> December, 2023). <<https://nairametrics.com/2023/12/13/as-of-2022-70-5-of-our-electricity-is-from-gas-27-3-from-hydro-2-2-from-solar-and-others-adebayo-adelabu/>> Accessed 26<sup>th</sup> June, 2025. Mary Izuaka, 'Nigeria needs Substantial Gas to meet Electricity Demand – Minister' (Premium Times: 24<sup>th</sup> October, 2023). <<https://www.premiumtimesng.com/business/636628-nigeria-needs-substantial-gas-to-meet-electricity-demand-minister.html>> Accessed 26<sup>th</sup> June, 2025.

<sup>35</sup> H. Biose, 'Gas Production and Utilization in Nigeria: A Long-Term Perspective' (2019) 6 (5) *International Journal of Engineering Technologies and Management Research* 58-72.

<sup>36</sup> Decade of Gas, 'Decade of Gas Initiative 2021'. <<https://decadeofgas.com.ng/about-decade-of-gas>> Accessed 5<sup>th</sup> June, 2025.

<sup>37</sup> Dare Olawin, 'CNG will reduce Transportation Costs – FG' (Punch Newspapers: 27<sup>th</sup> February 2025). <<https://www.google.com/amp/s/punchng.com/cng-will-reduce-transportation-costs-fg/%3famp>> Accessed 6<sup>th</sup> June, 2025.



are currently being embarked upon by the government who have also claimed that its utilization will bring about a reduction in transportation costs.<sup>38</sup>

From all these, it is clear that gas is fundamental to Nigeria's growth if well utilized especially through the creation of extensive infrastructure for it. This is because the presence of infrastructure boosts investment as it reduces gas supply shortages, ensuring that gas companies, industries, generating companies have gas for utilization. The lack of extensive infrastructure is one of the most challenging issues hindering Nigeria from fully benefitting from its gas resource,<sup>39</sup> which it must tackle. The NMDPRA is primarily responsible for closing this gap as it is in charge of mid-downstream gas operations and it therefore has some of the most important roles to play in advancing gas utilization in Nigeria.

#### **4.0 Nigerian Midstream and Downstream Petroleum Regulatory Authority's Role in Advancing Gas Utilization**

As highlighted earlier in this paper, the PIA 2021 created the NMDPRA to be in charge of midstream to downstream gas operations including gas licensing, ensuring security of supply, ensuring supply to the domestic market, gas pricing and making regulations for smooth running of midstream to downstream gas operations, among others. By enforcing these duties and responsibilities in line with the provisions of the PIA 2021, the Authority perhaps plays the most crucial role in advancing gas utilization in Nigeria. In practice, the Authority assists in furthering gas utilization in Nigeria through the following ways, all of which are linked together by virtue of the provisions of the PIA 2021:

##### **Midstream to Downstream Gas licensing**

The PIA 2021 is a transformative law geared towards unbundling Nigeria's oil and gas industry and streamlining its gas sector for development. The Act did so, most notably by the creation of a licensing regime for mid-downstream gas operations. Pursuant to sections 125-155, the Authority is placed in charge of issuing licenses for mid-downstream gas operations which include gas processing, storage, transportation, distribution, transportation network, as well as supply. By creating this licensing system, the Act created pathways for investment in gas. Accordingly, as the Authority issues licenses for these operations, it fosters investment in gas infrastructure for domestic use, industries, power and transport, all of which promotes significant gas utilization in Nigeria.

Since the Act came into existence, the Authority has licensed over 50 companies to participate in gas processing operations.<sup>40</sup> In 2025, the Authority granted up-to 10 gas distribution licenses to six companies.<sup>41</sup> These licenses allow investors participate in the gas sector profitably and promotes the embarkment of more gas projects including some of the gas-to-power projects are being commissioned

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<sup>38</sup> Ibid.

<sup>39</sup> Olushola Bello, 'Analyzing Gas Infrastructures Lacking and Serving as Drawback to Investors' (Business Standards: 19<sup>th</sup> April, 2022). <<https://businessstandardsng.com/analysing-gas-infrastructures-lacking-and-serving-as-drawback-to-investors/?amp=1>> Accessed 27<sup>th</sup> June, 2025.

<sup>40</sup> O. K. Nwankwo and Others, 'Understanding the Gas Value Chain in Nigeria as Envisaged by PIA 2021 for Economic Growth'. Paper presented at the SPE Nigeria Annual International Conference and Exhibition 2024.

<sup>41</sup> Emmanuel Addeh, 'FG Issues Distribution Licenses to Six Firms to Expand in-Country Gas Usage' (This Day: 2<sup>th</sup> January, 2025). <<https://www.thisdaylive.com/2025/01/29fg-issues-distribution-licenses-to-six-firms-to-expand-in-country-gas-usage/>> Accessed 27<sup>th</sup> June, 2025.

since the enactment of the Act,<sup>42</sup> to improve Nigeria's power sector. Additionally, more companies operate in gas transportation network than ever before, giving way for gas utilization to thrive.<sup>43</sup> So in this respect, the Authority is responding to the need to advance gas utilization in Nigeria.

### **Promotion of fairness and transparency in gas pricing**

The NMDPRA is saddled with the responsibility of determining pricing for natural gas in Nigeria. In accordance with the provisions of the PIA 2021, the Authority determines the prices for natural gas for the commercial, power and gas-based industrial sectors in accordance with pricing principles as stipulated.<sup>44</sup> Furthermore, under the Act, the Authority determines the requirement for domestic gas demand which is the total amount of natural gas marketable for wholesale customers of the strategic sectors.<sup>45</sup> The Authority sets the pricing fairly and in line with international practices ensuring that the price is not higher than the average of natural gas prices in countries that are also producers of natural gas.<sup>46</sup> Through gas pricing regulations and orders, the Authority ensures that prices reflect market dynamic and consistency.<sup>47</sup>

Also, by being guided by the willing buyer, willing supplier principle for commercial and industrial gas in line with Section 167 (3) (b) of the PIA 2021, the Authority promotes investment in these commercial and industrial sectors, towards gas utilization. Thus, a fixed price for power and domestic use allows for consistency and transparency, while a market-based price attracts investment in commerce and industry all of which are essential to the expansion of gas utilization in Nigeria for a better economy for the nation.

### **Enactment and implementation of regulations, rules and codes essential for gas sector governance and performance**

Clear and coherent regulatory framework for gas is essential to advancing gas utilization in Nigeria. The Authority is empowered under the PIA 2021 to make regulations, rules or codes on matters concerning mid-downstream oil and gas operations.<sup>48</sup> More specifically, the Authority is to make regulations regarding matters relative to gas development and utilization including gas licensing matters, gas infrastructure, domestic natural gas supply and demand as well as security of natural gas supply. These subsidiary legislations are made for ease of operations in the gas sector to foster practices that are in tandem with the Authorities goal of improving the nation's gas sector.

Some of the recently enacted regulations specifically concerning gas include Gas Transportation Network Code, 2020, Gas Pricing and Domestic Demand Regulations, 2023, Gas Trading and Settlement Regulations, 2023, Midstream Gas Flare Regulations, 2023, Natural Gas Pipeline Tariff

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<sup>42</sup> Obinna Nwaoku, 'FG Commits to Clean Energy, inaugurates Gas, Power Plants in Rivers' (The Guardian: 19<sup>th</sup> March, 2025). <<https://guardian.ng/news/fg-commits-to-clean-energy-inaugurates-gas-power-plants-in-rivers/>> Accessed 27<sup>th</sup> June, 2025.

<sup>43</sup> Nwankwo and Others (n. 38).

<sup>44</sup> S. 167, PIA 2021.s

<sup>45</sup> S. 173, PIA 2021.

<sup>46</sup> Kaduna Electric, 'Power Generation: NMDPRA slashes Gas Prices for Gencos' (Kaduna Electric: 15<sup>th</sup> April, 2025). <<https://kadunaelectric.com/power-generation-nmdpra-slashes-gas-price-for-gencos/>> Accessed 27<sup>th</sup> June, 2025.

<sup>47</sup> Ibid.

<sup>48</sup> S. 33 PIA 2021.

Regulations, 2023, as well as the Gas Distribution Systems Regulations, 2023.<sup>49</sup> Through these subsidiary regulations, the Authority seeks to improve gas sector governance and performance. The enactment of these legislations also show commitment by the government through the Authority to improve access to and usage of natural gas to promote the development of gas infrastructure and deepen investment in the gas sector<sup>50</sup> as the domestic market continues to increase.

### **Gas infrastructure**

Gas infrastructure is the catalyst for the growth and development of Nigeria's gas sector. Without investment in infrastructure, there cannot be optimum gas utilization as feedstock shortages will affect output especially in the strategic sector of power, industry and commerce. It is clear that, the Authority has a key role to play by improving Nigeria's gas infrastructure including processing, storage, transmission, transportation, pipeline and supply of gas to the aforementioned sectors. The licensing of gas operations, championing of various gas projects are part of the Authority's efforts in improving gas infrastructure.

Another important mechanism is the Midstream to Downstream Gas Infrastructure Fund which is created under the PIA 2021 to increase domestic gas consumption through gas infrastructure projects.<sup>51</sup> The Authority is in charge of remitting funds gotten into the Fund for the purpose for which it was created. The Fund has been highlighted by the current Executive Director of the Fund, Oluwole Adama, to finance projects related to CNG, LPG and LNG processing plants, storage, distribution and transportation infrastructure.<sup>52</sup> The Director noted that one of the key goals of the Fund which the Authority remits the monies to, is to improve gas utilization at a domestic level on a large scale.<sup>53</sup> The Authority therefore enhances gas utilization by encouraging investment in infrastructure for gas development.

### **5.0 Challenges affecting the Authority's Performance of its Role in Advancing Gas Utilization**

Gas utilization in Nigeria has in no doubt seen some optimistic progress since the advent of the Petroleum Industry Act, 2021. The creation of the Nigerian Midstream to Downstream Regulatory Authority was indeed a step in the right direction as it has been working towards expanding gas utilization in Nigeria. But challenges still lie because Nigeria is not where it should be in terms of gas utilization when compared with other gas producing countries globally. These challenges include the following:

#### **a. Infrastructure deficits**

Gas utilization in Nigeria despite the visible achievements faces a stumbling block which is infrastructural deficits. While the Midstream to Downstream Gas Infrastructure Fund exists and is under the bosom of the NMDPRA, there still exists a lack of extensive gas network and distribution

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<sup>49</sup> NMDPRA (n. 28).

<sup>50</sup> Labour Reports, 'NMDPRA enacts 20 regulations under PIA' (Labour Reports: 8<sup>th</sup> March, 2025).  
<<https://labour24.com.ng/2025/03/nmdpra-enacts-20-regulations-under-pia/>> Accessed 28<sup>th</sup> June, 2025.

<sup>51</sup> S. 52 PIA 2021.

<sup>52</sup> Muyiwa Lucas, 'NMDPRA: MDGIF seeks sustained Support for Gas Infrastructure' (The Nation: 5<sup>th</sup> November, 2024).  
<<https://www.google.com/amp/s/thenationonline.ng/nmdpra-mdgif-seeks-sustained-support-for-gas-infrastructure/amp>>  
Accessed 28<sup>th</sup> June, 2025.

<sup>53</sup> Ibid.



infrastructure across the nation. Gas cannot be fully utilized as an energy resource for power, commerce and industry if there are infrastructural deficits. These infrastructural deficits have contributed to shortage of electricity supply nationwide and has affected industrial output as they lead to increased operating costs and limitations on production capacity, thereby failing to meet domestic gas needs.<sup>54</sup>

b. Insufficient supply

Insufficient supply of natural gas to gas companies is another challenge affecting the Authority's performance of its role in enhancing gas utilization in Nigeria. This paper noted that Nigeria has massive gas reserves, but because of insufficient supply of gas to companies and industries, utilization cannot be optimal. Power generating companies have complained about low gas supply to them which stifles generating capacity, which causes poor power supply.<sup>55</sup> The insufficient supply of gas is also linked to the lack of infrastructure to supply it. Indeed, without widespread supply of gas, utilization becomes hard to achieve, especially for the power sector where Nigeria relies on more than 70% gas to generate electricity.

c. Gas flaring and Pipeline Vandalism

Another present challenge hindering the Authority from enhancing gas utilization is gas flaring. Gas flaring has been an issue since the beginning of oil exploration and production since there was not adequate infrastructure to reinject and utilize it. The Associated Gas Reinjection Act<sup>56</sup> and other regulatory and policy framework<sup>57</sup> came to penalize gas flaring and open up opportunities for gas reinjection for utilization through infrastructure and commercialization. Inasmuch as efforts over years to deal with gas flaring have been progressive, the challenge of gas flaring still subsists, placing Nigeria among the top ten gas flaring countries globally.<sup>58</sup> The persistence of gas flaring has affected gas supply for the gas market. This is particularly bad for Nigeria's gas economy because gas flared is much needed and can be utilized for commerce, power and industry.<sup>59</sup> Gas flaring is also tied to the present infrastructural deficits especially infrastructure for reinjection, processing and distribution for utilization. Furthermore, the availability of gas is shortened due to gas pipeline sabotage and vandalism,<sup>60</sup> which experts have noted can extensively hinder gas supply,<sup>61</sup> preventing advancements in gas utilization in Nigeria.

d. Regulatory Overlaps

While the PIA 2021 is hailed for bringing about reforms in the industry especially with the creation of the two separate regulatory agencies, overlaps in performance of regulatory functions, some of which were created by the Act, affects the Authority's performance of its role in advancing gas utilization. For

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<sup>54</sup> Stephen Onyekwelu, 'Gas Pricing, Inadequate Infrastructure Deter Industrialization in Nigeria' (Business Day: 22<sup>nd</sup> September, 2020); Bello (n. 39).

<sup>55</sup> Nchetachi Chukwuajah, 'Low Gas Supply to GenCos, Vandalism causes Poor Power Supply – IBEDC' (Nigerian Tribune: 10<sup>th</sup> March, 2024). Mohammed Shosanya, 'Gas Insufficiency, Low Tariff Dip New Power Firms' Progress' (Daily Trust: 29<sup>th</sup> July 2014).

<sup>56</sup> Now repealed under s.310 of the PIA

<sup>57</sup> Flare Gas Prevention of Waste and Pollution) Regulation, 2018.

<sup>58</sup> C. Nwaoha and D. A. Wood, 'A Review of the Utilization and Monetization of Nigeria's Natural Gas Resources: Current Realities' (2014) 18 *Journal of Natural Gas Science and Engineering* 412-432.

<sup>59</sup> Vanguard, 'Nigeria loses 4,1000gw/h as rising Gas flaring worsens Power Supply' (Vanguard: 24<sup>th</sup> February, 2025).

<sup>60</sup> Ibid.

<sup>61</sup> Oladehinde Oladipo, 'Leaky Pipelines plunge Nigeria LNG's Gas Supply by 80%' (Business Day: 2025)

example, under Section 8 of the PIA 2021, the Upstream Commission is placed in charge of managing facilities that have both upstream and midstream operations even though ordinarily, under the Act, midstream operations are under the jurisdiction of the Mid-downstream Authority. The overlap can lead to an increase in cost of doing business which is not attractive to investors in the industry.<sup>62</sup> In fact, stakeholders have noted that there is a need for further regulatory streamlining and alignment between both regulators to ensure the industry is being run optimally<sup>63</sup> and extensive gas utilization becomes a reality.

## **6.0 Way Forward**

The NMDPRA, as a regulator of the mid-downstream oil and gas sector, is key if Nigeria seeks to transform itself into a gas-based industrialized economy. Therefore, in order to overcome the challenges hindering optimal performance of its role in advancing gas utilization, the following recommendations need to be implemented.

### **a. Public-private partnership**

Inasmuch as the PIA 2021 seeks to steer the industry away from a solely government based and controlled industry into a balanced industry, actual implementation is needed with both national and international stakeholders and companies that have what it takes to invest in gas utilization.

### **b. Infrastructural investments**

It was noted that one of the key challenges to advancement of gas utilization in Nigeria is the lack of extensive infrastructure for transmission and transportation of gas particularly to the strategic sectors including industries and power generating companies. Thus, key investments in gas infrastructure will go a long way to combat gas supply shortages to these sectors. Through implementation of the Mid-downstream Infrastructure Fund to fund construction of pipelines and transportation network projects, partnership with private sector for infrastructural development, gas reinjection for onward utilization and conscious elimination of sabotage and pipeline vandalism, all overseen by the Authority, notable advancements can be made.

### **c. Policy and regulatory streamlining and implementation**

Nigeria's gas policy, master plan, decade of gas initiative, gas regulatory framework are good frameworks that have renewed commitments towards charting a new course for gas development in Nigeria. But only if implemented can actual results be seen. Furthermore, there is need for regulatory streamlining especially where overlaps exist as this paper has highlighted, in order to reduce bureaucratic tendencies and increase investor confidence.

## **7.0 Conclusion**

The Nigerian Midstream to Downstream Petroleum Regulatory Authority indeed plays a key role in advancing gas utilization in Nigeria and has made notable strides in doing so. This article has been instrumental in providing an assessment of the Authority's role which it has performed through; mid-downstream gas licensing, enacting regulations, rules and codes for the smooth sailing of the mid-downstream gas sector, promoting fairness and transparency in gas pricing, improving gas infrastructure

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<sup>62</sup> Dare Olawin, 'Address overlapping Laws in Gas Sector, NGA tells Govt' (Punch Newspapers: 13<sup>th</sup> March, 2025)

<sup>63</sup> Peter Uzoho, 'Operators seek Alignment between NUPRC, NMDPRA in Oil Regulation' (ThisDay: 19<sup>th</sup> April, 2023).



and managing the Mid-downstream Gas Infrastructure Fund. While indeed gas utilization in Nigeria has improved over the years due to the Authority's oversight and regulation, the challenges such as lingering infrastructural deficits, suboptimal gas supply, regulatory overlaps and vandalism, still linger and only through more conscious efforts towards implementing the recommendations provided can Nigeria step into an improved reality that catapults its economy to the envisioned gas-based industrial economy.