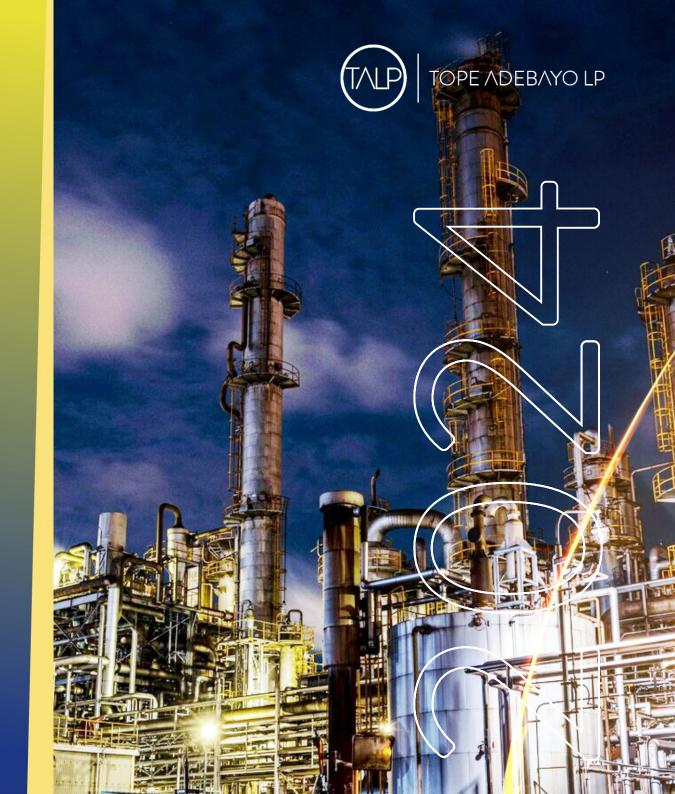
MID-YEAR
REPORT ON
THE NIGERIAN
GAS INDUSTRY
& INVESTMENT
PROJECTIONS
FOR 2024 &
BEYOND

VOLUME 2



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INTRODUCTION





In our <u>2023 year-end report</u>, we analysed the opportunities, challenges, and transformations experienced in Nigeria's oil and gas industry, with a particular emphasis on gas. Additionally, we provided industry projections for 2024 and the upcoming years. Our report focused on Nigeria's energy transition efforts highlighting the nation's development and utilization journey where we examined historical gas policies, significant gas projects following the announcement of the 'Decade of Gas', international events such as the influence of the Baku-Tbilisi-Ceyhan (BTC) Pipeline on energy security in Europe, as well as the potential effects of the Nigeria-Morocco pipeline on both energy security and economic integration and collabora-

tion within the African region. In our report, we stated that despite the global push for transitioning from fossil fuels to renewable energy (RE) sources, the International Energy Agency (IEA) has stated in its global pathway for energy transition that specific fossil fuels such as natural gas could serve as a transitional bridge for economies facing challenges in readily adopting renewable sources. In this Mid-Year Report, we examine the key projects propelling Nigeria's Decade of Gas Policy and its Energy Transition Plan (ETP). We also examine new investments in the petroleum industry aimed at driving economic growth and enhancing energy security. Additionally, we spotlight recent developments in

International Energy Agency. (2021, May 18). Pathway to Critical and Formidable goal of net-zero Emissions by 2050 is Narrow but Brings Huge Benefits According to IEA Special Report. https://www.iea.org/news/pathway-to-critical-and-formidable-goal-of-net-zero-emissions-by-2050-is-narrow-but-brings-huge-benefits accessed 14th December.

INTRODUCTION





Nigeria's gas sector, the sources of funding, and the projections for gas investments in the forthcoming years.

The future of the Nigerian petroleum industry will depend on utilising the country's abundant natural hydrocarbon resources for shared prosperity, energy accessibility, affordability, sustainability, and security. Consequently, the Nigerian Government has designated natural gas as the immediate transition fuel due to its lower carbon footprint compared to other fossil fuels. Nigeria's role as a major player in the global gas industry is

certainly not in doubt, as Nigeria ranks highest in Africa and 10th globally in terms of proven gas reserves with huge growth potential. As of January 1, 2023, Nigeria boasts 208.83 trillion cubic feet (tcf) of natural gas reserves, opening a large opportunity for investments in the upstream gas sector. A new target is being considered by the Federal Government of Nigeria to grow its gas reserves to 210 tcf by 2025 and to 220 tcf by 2030 with an upside potential of 600 tcf.²

²https://www.nuprc.gov.ng/wp-content/uploads/2024/02/Upstream-Gaze-Magazine-Vol.-5-20-2.pdf accessed 20th June 2024.





In March 2021, former president Muhammadu Buhari declared the 2020s Nigeria's 'decade of gas'. In doing so, he signalled the government's renewed focus on gas as the fuel of choice for powering Nigeria's industrial ambitions. This 20-billion-dollar initiative is centred on four key pillars:





Expanding gas infrastructure



Growing gas exports



Attracting foreign direct investment into the gas sector



To achieve these goals, the government outlined several policy measures, including:



The implementation of a new gas pricing regime to encourage investment in the sector



The development of new gas infrastructure



The promotion of gas-based industries such as fertiliser production, power generation, and petrochemicals.

The Decade of Gas is expected to bring \$14bn in FDI, \$12bn FGN revenue and 2 million new jobs. Projections indicate a potential shortfall of 10bcf/day by 2030 which presents a huge opportunity for investment in the gas sector. High case supply needs to be attained to meet the base case demand. Supply is to be anchored on critical gas development projects that would create significant economic benefits and shared prosperity for Nigeria and its partners by 2030. The Demand/Supply scenario will be driven by projects such as:

- The NLNG Trains 7 and 8
- The Nigeria/Morocco pipeline project
- Ajaokuta-Kaduna-Kano (AKK) Natural Gas project

- Brass LNG, Floating LNG, OK LNG
- Trans-Niger Gas Pipeline
- Brass Fertiliser
- NSIA OCP Gas Project.

³https://www.nuprc.gov.ng/wp-content/uploads/2024/02/Upstream-Gaze-Magazine-Vol.-5-20-2.pdf accessed 20th June 2024.



Other projects from which the Decade of Gas was meant to be achieved include Brass Fertiliser and all under-construction power plants. Gas supply for the Decade of Gas would derive from specific onshore non-associated gas (NAG) and shallow water associated gas/NAG development projects. These projects are meant to spur the development of other critical projects like the Obiafu-Obrikom-Oben Gas Pipeline designed to transport gas from the Obiafu-Obrikom gas plant in Rivers State to the Oben gas plant in Edo State, and the Escravos Lagos Pipeline System Phase II, an expansion project for the existing Escravos Lagos Pipeline System that transports gas from Western Niger Delta to Lagos and other cities in the South-West.

In our 2023 end-of-year report, we discussed the comprehensive plan identified by the Federal Government of Nigeria to help secure Nigeria's Decade of Gas, the benefits of the Decade of Gas policy as well as the critical infrastructure to be delivered within this decade. In this Report, we will look into the critical infrastructure identified and their progress rates so far.

NLNG Train 7

Nigeria LNG Train 7 project is an ongoing expansion of the Nigeria LNG Terminal at Bonny Island, Nigeria, which currently has a total of six

operational LNG processing units, four 84,200m³ LNG storage tanks, four 65,000m³ refrigerated storage tanks, and three 36,000m³ condensate storage tanks. In addition, the terminal also has a common LNG processing fractionation plant, a common condensate stabilization plant, two LNG export jetties, 23 dedicated LNG ships and a materials off-loading jetty, and ten gas turbine generators with a combined capacity of more than 320MW. Owned and operated by Nigeria LNG company, a joint venture between Nigerian National Petroleum Corporation (NNPC), Shell Gas, Total, and Eni, the terminal currently can produce 22Mtpa of LNG and 5Mtpa of liquefied petroleum gas (LPG) and condensate per annum (Mtpa).

The Nigeria LNG Train 7 project will primarily add a seventh LNG processing unit with a production capacity of 4.2Mtpa and supporting infrastructure including an 84,200m³ storage tank, a 36,000m³ condensate tank, and three gas turbine generators at the terminal. The project, whose cost is approximately US\$ 6.5bn, will also include debottlenecking of the existing six trains that will increase the processing capacity by 3.4Mtpa, and the construction of wells and pipelines to supply additional feed gas to the LNG facility. Upon completion, the Nigeria LNG Train 7 project will increase the Nigeria LNG Terminal production capacity by 35% from the current 22mtpa to





30mtpa. After the Final Investment Decision (FID) was taken in December 2019, EPC contracts were signed with the SCD JV Consortium comprising Saipem, Chiyoda and Daewoo in May 2020. In June 2021, the former President of Nigeria, Muhammadu Buhari, flagged off the construction of the Train 7 project at a ceremony held in Bonny Island. In August 2021, the EPC contractor appointed Air Products and Chemicals Incorporated to provide the main cryogenic heat exchangers (MCHEs) for the project.

At the time of our last report, the NLNG Train 7 had reached 52% completion and was engaging about 8,300 Nigerians of diverse skill sets. The NLNG Limited has recently disclosed that the project has reached an overall progress of 67% completion, and already delivering on one of its benefits with over 9,000 Nigerians working on the project with numerous indirect jobs and businesses emerging as a result of the construction. ⁵ The

project with a total contract sum of \$4.3bn has achieved a significant construction milestone of over 45 million man-hours. The Chairman of Shell Companies in Nigeria (SCIN) said that Shell is determined to take the final investment decision on some of its major projects in 2024, including the Bonga North project which would supply 50% of the gas required for the successful operation of the Train 7 project. NLNG Ltd emphasised that the project was a strategic initiative for Nigeria's energy transition, aiding the country in achieving a net-zero future and enhancing gas monetisation and utilisation.

Nigeria-Morocco Gas Pipeline (NMGP)

The Nigeria-Morocco Gas Pipeline was proposed in a December 2016 agreement between the Nigerian National Petroleum Corporation

⁴https://www.nigerialng.com/Train7-Project/Pages/Home.aspx_accessed 20th June 2024.

https://punchng.com/train-7-gas-project-at-67-completion-says-nlng-2/#:~:text=Nigeria%20LNG%20Limited%20has%20disclosed,the%20completion%20of%20the%20project. Accessed 20th June 2024.



(NNPC) and the Moroccan Office National des Hydrocarbures et des Mines (National Board of Hydrocarbons and Mines) (ONHYM). The pipeline would connect Nigerian gas to Morocco and Europe through every coastal country in West Africa (Benin, Togo, Ghana, Cote d'Ivoire, Liberia, Sierra Leone, Guinea, Guinea-Bissau, Gambia, Senegal, and Mauritania), ending at Tangiers, Morocco, and Cádiz, Spain. It would be an extension of the existing West African Gas Pipeline, which already connects Nigeria with Benin, Togo, and Ghana, and it would connect to the Maghreb-Europe gas pipeline.

In our 2023 end-of-year report, we stated that the NMGP construction had begun in June 2021 and by May 2022 had reached the initial technical design stage and is projected to be completed in stages over 25 years. Upon completion, the gas pipeline will be the world's longest offshore pipeline, and the second-longest pipeline overall. As of May 2024, ETAFAT, the company overseeing the project stated that the NMGP has advanced a step following the commencement of topographic surveys in the Northern section. These surveys cover Morocco, Mauritania and Senegal following a meeting between Morocco's ONHYM and the Nigerian NNPCL. ETAFAT officials have stated that the initial studies are already in an advanced stage, marking a crucial milestone for the project. King Mohammed VI of Morocco underscored the importance of the NMGP stating that the

project is for peace, African economic integration, co-development and a project for the present and future generations.

We had stated in our end-of-year report that energy experts and analysts had expressed concerns over the delay in executing the project since the signing of the initial Memorandum of Understanding (MOU) in 2016. Some of the concerns raised include the potential hurdles posed by ongoing conflicts in the Sahel region, which the pipeline is slated to traverse and could potentially impede the successful realization of the project. Nigeria and Morocco have however moved to revive the long-stalled projects in light of a gas supply crunch following Russia's invasion of Ukraine in 2021. The NMGP has become more crucial since Algeria cancelled the Maghreb-Europe gas (GME) pipeline over a diplomatic brawl with Rabat. GME connected Algerian gas fields with the port of Tarifa in Cadiz via Morocco, earning the Moroccan government over 50 million euros annually in transit fees and 800 million cubic meters of Algerian gas at a stable price, which it used to power its stations. After Algeria cut off its supply to Rabat, Rabat now looks to secure gas deals from other sources that do not require passing by the borders of Algeria. The Moroccan kingdom now mainly depends on Algerian natural gas to meet its needs making it expedient to proactively pursue the NMGP.⁷

⁷https://www.newarab.com/news/morocco-nigeria-discuss-african-gas-pipeline-project_accessed 20th June 2024.



Funding for the \$25 Billion NMGP project has been secured through four memoranda of understanding signed in June 2023, and Nigeria's Minister of State for Petroleum Resources announced plans to begin construction of the NMGP this year.⁸

The Ajaokuta-Kaduna-Kano Pipeline (AKK) Project

The AKK project spans from Ajaokuta to Kano, crossing through Kaduna, and its primary objective is to supply gas to Northern Nigeria while catalysing gas development in the South. Upon its completion, the pipeline is expected to generate 3.6 gigawatts of power and provide crucial support to gas-based industries located along its path. In our 2023 end-of-year report, we reported that although the AKK had experienced some delay, the NNPCL slated the completion deadline for August 2024. The AKK Pipeline constitutes Phase 1 of the Trans Nigeria Gas Pipeline Project (TNGP), and it is estimated to cost about \$2.8 billion. In January 2020, the Nigerian government announced a sovereign debt guarantee for \$2.5 billion in financing for the pipeline's construction. In July 2020, the construction of the pipeline was launched with China Export & Credit Insurance Corporation (Sinosure) providing insurance cover for 85% of the total cost estimated at \$2.89 billion. Nigeria is borrowing \$2.6 billion over 12 years from the Bank of China at Libor (London interbank offered rate)

plus 3.75%. The remaining \$434 million will come as equity from the Nigerian Gas Company, a subsidiary of NNPCL. The delays experienced with the project are due to the complications in the project financing due to the Bank of China's reported unwillingness to start disbursing the funding it pledged in 2020. It is speculated that the project company is turning to other potential funders, including export credit agencies. Sometime in March 2024, the Group Chief Executive Officer of NNPCL said a new completion date had been fixed for December 2024.

The Obiafu-Obrikom-Oben (OB3) Gas Pipeline

In our 2023 end-of-year report, we stated that the 127 km-long, \$700 million OB3 pipeline project being built by NNPCL and expected to commence operations in 2022 had experienced some delays as it remains under construction due to various challenges experienced by the project contractors such as rain, flooding, Covid-19 pandemic and other technical issues. The CEO of NNPCL recently disclosed during an inspection of the OB3 pipeline that even though the pipeline had been under construction for years and missed several deadlines, the monumental project will be completed by mid-August. By design, the OB3 gas pipeline according to NNPCL is the interconnector which

⁸https://www.pipeline-journal.net/news/nigeria-morocco-gas-pipeline-project-moves-forward-northern-section-survey-begins_accessed 20th June 2024.

⁹https://www.gem.wiki/Trans_Nigeria_Gas_Pipeline_accessed 20th June 2024.

¹⁰https://dailypost.ng/2024/03/29/2-8bn-akk-gas-pipeline-nnpcl-announces-new-date-for-completion/accessed 20th June 2024.





links the Eastern gas pipeline network to the Escravos-Lagos Pipeline System (ELPS) in the West and the AKK pipeline in the North. The River Niger crossing operation had been the major impediment to the completion of the project for over 3 years. But with the adoption of the Micro-Tunnelling/Direct Pipe Installation technology, NNPCL said the contractors are making good progress, with about 860 metres out of the 1,800 metres achieved so far. On completion, the pipeline will bring about 2.2 billion standard cubic feet of gas (bscf) into the network which will boost nationwide gas supply to drive industrialisation and economic growth.¹¹

Nigeria's Gas Flare Commercialization Programme (NGFCP) 2022

In our 2023 end-of-year report, we reported on the relaunch of the NGFCP wherein 42 permits to access flare gas were offered through a competitive and transparent bidding process to technically, commercially and financially competent third-party investors from across the world. This bid round aims to mop up 30% of the existing flares in Nigeria, accounting for 250 million scf of natural gas. The Nigerian Upstream Petroleum Regulatory Commission (the Commission) has identified the NGFCP as one of the critical pathways

[&]quot;https://www.premiumtimesng.com/business/business-news/706214-ob3-gas-pipeline-to-be-completed-august-nnpc.html accessed 20th June 2024.



to achieving net zero carbon emissions, and sometime in April this year, the Commission held its Investors' Forum for the successful bidders in Abuja. The forum was convened to bring flare site awardees, technology providers and financiers together with the goal of eliminating flared gas and improving environmental sustainability. During the forum, the Commission said that the NGFCP is an opportunity to utilize captured flared gas for electricity generation, fertilizer and methanol production and feedstock for local industries. This is in addition to improving host community relations, environmental sustainability, building local content capacity, creating employment opportunities and encouraging increased capital inflow to the sector and also turning Nigeria's COP commitments into actionable, sustainable outcomes. The Commission's Chief Executive said due diligence had been carried out on all awardees and remarkable progress has been made to ensure that proposed projects would achieve measurable success. 12

The Presidential Compressed Natural Gas Initiative (PCNGI)

In our 2023 end-of-year report, we reported on the Presidential Compressed Natural Gas Initiative (PCNGI) launched by President Bola Ahmed Tinubu in August 2023 to drive the utilization of CNG, following which 250 billion naira was set aside in CBN as an intervention fund to facilitate financing options and encourage the adoption of CNG

technology. The PCNGI amongst other things aims to develop new stakeholder-operated intrastate mass transit systems built on CNG, support states to onboard new CNG buses as part of their intrastate mass transit network, incentivise investors to invest in CNG processing, distribution, utilization and bolster the nation's automotive manufacturing capabilities and open new investment windows for domestic and global investors in the gas sector. Sometime in December 2023, the President inaugurated 107 gas and electric-powered buses and taxis in Maiduguri, Borno State under the PCNGI.¹³

The PCNGI Programme Director/Chief Executive disclosed recently (in May) at the Southwest stakeholder's forum held in Lagos that over \$50 million has been mobilised directly within 5 months, much more than any amount mobilised in the transportation sector in the last 8 years. The PCNGI targets over 11,500 new CNG-enabled vehicles and 55,000 CNG conversion kits for existing Premium Motor Spirit (PMS)-dependent vehicles. The PCNGI CE said thousands of Nigerian companies are investing in the sector because they see that the present administration is serious about leveraging gas to move the country forward. The Minister of State, Labour and Employment stated that the PCNGI has partnered with the Federal Ministry of Labour and Employment and will not only revolutionise Nigeria's transport sector

¹²https://nannews.ng/2024/04/18/gas-flare-programme-critical-pathway-to-net-zero-carbon-emission-nuprc/ accessed 20th June 2024.

¹³https://newswirelawandevents.com/tinubu-unveils-107-gas-electric-powered-buses-in-borno/ accessed 14th December 2023.



with cleaner energy but also upskill and train 25,000 auto technicians in the process. The head of commercial at PCNGI said 590 CNG-compliant buses have been purchased by the Ministry of Finance which will be delivered within the month, and distribution will be based on access to CNG. He also said 5,500 tricycles would be provided under the PCNGI to alleviate Nigeria's transport challenges.¹⁴

Shell's Investment in Natural Gas Production in Bonga North Oil Project.

We reported in our 2023 end-of-year report that Shell was pushing forward with the feasibility phase of its Bonga North endeavour located in Nigeria's deep water, and the project pending final investment decision approval by 2024 was aiming for commercial production by 2025 with an anticipated cost pegged at approximately \$5, 455 million. The Chairman of Shell Companies in Nigeria (SCIN) said the recently identified \$5 billion prospect in the Bonga North project would be a tie-back project that would unlock about 350 million barrels of oil equivalent and extend the life of Bonga Floating Production Storage and Offloading (FPSO) for another 15 years. Shell's new commitment is also to augment natural gas production, catering to domestic demand and export requirements. Shell Nigeria Exploration and Production Company Limited (SNEPCO) is a 55% operator of the Bonga Northwest field with Esso Exploration & Production

Nigeria (Deepwater) Limited holding 20%, Total E&P Nigeria Limited with 12.5% holding and Nigerian Agip Exploration Limited holding 12.5% under a production sharing contract with the NNPCL.

The project is currently in the feasibility phase and is set to receive approval for the FID this year with an anticipated development cost of \$5,455 million. Shell has stated that it wants to make quick progress on the development phase to start production by 2027 or 2028, and based on economic assumptions, the production will continue until the field reaches its economic limit in 2063.¹⁵

Drilling Campaign, Deepwater Projects to Drive Nigeria's Oil & Gas Production Growth in 2023-2030

In our 2023 analysis, we reported that drilling campaigns and deepwater projects will be driving Nigerian oil and gas production growth opportunities in 2023-2030, as the growth opportunities for the sector will hinge on project completion timelines and nationwide infrastructure and security improvements. The Commission sometime in August 2023 announced plans towards holding its maiden Nigerian Upstream International Investment and Financial Roadshow (NUIIFR) for Petroleum Prospecting Licence (PPL) awardees, NGFCP bidders,

¹⁴ https://www.premiumtimesng.com/business/business-news/694974-presidential-cng-initiative-attracts-50-million-investment.html accessed 20th June 2024.

¹⁵ https://www.offshore-technology.com/data-insights/oil-gas-field-profile-bonga-north-conventional-oil-field-nigeria/?cf-view_accessed 25th June 2024.





and potential investors in the upcoming mini bid for the 12 deepwater assets. The move is to explore funding opportunities and leverage the capabilities of industry players, and prospective investors (local and offshore) to de-risk the assets and awards. The event was held in April and May in Texas and Miami respectively, and participants networked, exchanged ideas and charted strategic pathways to enhance investment opportunities.

In April 2024, the Commission announced at the Offshore Technology Conference (OTC) in Texas that seven deepwater assets carried over from the previous bid round launched in 2022 are on offer. In May, Nigeria opened a bid round covering 12 onshore and deepwater oil and gas blocks

situated in the country's prolific Niger Delta Basin. They comprise 6 greenfield blocks on the continental shelf, four deepwater blocks and two onshore Niger Delta blocks, and this bid round is expected to close in January 2025. The Commission says that in addition to these blocks, the seven deep offshore blocks from the 2022/2023 mini-bid round exercise shall also be concluded bringing a total number of oil blocks offered to investors in the 2024 marginal licensing round to 19. In June, the Commission announced that with the acquisition of additional data on the oil assets up for sale, it was making available an extra 17 deep offshore blocks for bid in the 2024 licensing round and the date for pre-qualification had been extended from June 25 to July 5. Data access/data purchase/evaluation/bid preparation and

^{16/}https://africaoilgasreport.com/2023/07/farm-in-farm-out/nigerian-deepwater-bid-round-wraps-up-today-july-28-2023/ accessed 25th June 2024.



submission initially scheduled to open on 4 July 2024 and close on 29 November 2024 will now start on 8 July 2024 and close on 29 November 2024. In line with the published guidelines, the Commission indicated that some assets on offer should be applied for as clusters, namely: PPL 300-CS & PPL 301-CS, PPL 2000 and PPL 2001.¹⁷

In line with its determination to create enabling and attractive investment regimes in the upstream oil and gas sector, the Commission assured investors that it had sought and obtained the approval of President Bola Tinubu to vacate entry barriers. The Commission stated that the President approved attractive fiscal regimes and also minimised entry fees for the 2024 licensing rounds by putting a cap on the signature bonus payable for the award of acreages.

Funding for the Nigerian Gas Sector

The Federal Government aims to attract about \$10 billion worth of investment through the signing of the consolidated guidelines for the implementation of Fiscal Incentives for the Oil & Gas sector. These consolidated guidelines for the fiscal incentives are based on extensive collaboration across the Finance and Petroleum Ministries and involve key regulatory bodies including the Federal Inland Revenue Service (FIRS), the

Commission and the Authority. The guidelines are measures designed to deliver a competitive Internal Rate of Return (IRR) for Oil and Gas projects and attract over \$10 billion in new investments within the next 12-18 months. It also underscores Nigeria's commitment to reaching its long-term oil production target of 4 billion barrels per day while enhancing the reliability of gas supply to boost export earnings and fuel Nigeria's industrialisation. The Implementation Guidelines for the Oil and Gas Companies (Tax Incentives, Exemption, Remission, etc.) Order, 2024 are issued pursuant to Paragraph 12 of the Oil and Gas Companies (Tax Incentives, Exemption, Remission, etc.) Order, 2024 and they apply to companies with licenses or leases producing non-associated gas from greenfield onshore and shallow water locations and midstream gas companies undertaking a new or ongoing gas utilisation project. The guidelines include:

- a. Federal Inland Revenue Service Guideline on the applicability of Tax Credits and Allowances for Non-Associated Gas Greenfield Development.
- b. Federal Inland Revenue Service Guideline on the applicability of the Midstream Capital and Gas Utilization Allowance.
- c. Nigerian Upstream Petroleum Regulatory Commission Guideline on Hydrocarbon Liquids Content in a NAG Field.

¹⁷https://africaoilgasreport.com/2023/07/farm-in-farm-out/nigerian-deepwater-bid-round-wraps-up-today-july-28-2023/_accessed 25th June 2024.

¹⁸https://punchng.com/nigeria-eyes-fresh-10bn-investment-in-0il-gas-sector/ accessed 20th June 2024.



The Bank of Industry, in collaboration with the Bank of China in 2021 created a US\$500billion funding arrangement to finance the importation of gas flare capture equipment into the country. To access the funding, intending borrowers must provide an advance of 25 per cent of their funding needs and import the gas flare equipment from China. For companies/players that intend to import their flare capture equipment from the United States, the US Exim Bank also approved \$ 69.8 million. The initiative was to ease access to funding to potential investors in the sector. Prior to this, the Central Bank of Nigeria (CBN) had in the third quarter of 2020 launched an intervention fund of N250 billion for the Nigerian gas sector to help stimulate investment in the gas value chain. The fund was set up to encourage the adoption of CNG as fuel of choice for power generation and transportation, and LPG for domestic cooking.¹⁹

The Federal Government of Nigeria (FGN) has, pursuant to the PIA established the Midstream and Downstream Gas Infrastructure Fund (the Gas Infrastructure Fund (GIF)) as well as the Governing Council charged with the responsibility of supervising and making investment decisions for the GIF.²⁰ The GIF was established under the PIA to enable the Nigerian government to make equity investments in midstream and downstream gas infrastructure projects. The GIF may be funded from the following sources:

- a. 0.5% of the wholesale price of petroleum products and natural gas sold in Nigeria which shall be collected from wholesale customers;
- b. Grants and similar funding received from multilateral agencies, bilateral institutions and related sources dedicated partly or wholly to the development of infrastructure for midstream and downstream gas operations in Nigeria;
- c. Interest, if any, payable in respect of money held in a bank account maintained by the GIF; and
- d. Any other sum freely donated or accruing to the GIF for the development of infrastructure in midstream gas operations.

At the Nigeria International Energy Summit held in Abuja sometime in February this year, the African Export-Import Bank, the largest financier of oil and gas projects in Africa stated that it is investing \$30 billion in industry projects with Nigeria receiving 60% of this funding.²¹

¹⁹ https://kpmg.com/ng/en/home/insights/2021/09/nigerian-gas-sector-watch-volume-4.html accessed 20th June 2024.

²⁰20PIA 2021, section 52.

²¹https://punchng.com/nigeria-gets-60-share-of-aferimbanks-30bn-oil-gas-funding/accessed 20th June 2024.

NEW INVESTMENTS TO DRIVE NIGERIA'S DECADE OF GAS





The Nigerian Midstream and Downstream Petroleum Regulatory Authority (NMDPRA) Issued the First Wholesale Gas Supply Licence Under the PIA

In the last quarter of 2023, the FGN issued through the NMDPRA, its first Wholesale Gas Supply Licence pursuant to Section 142 of the PIA to Ohuru Trading Limited, an indigenous firm, for 500 million standard cubic feet of gas per day. The commercial licenses provided for in the PIA in general and the Wholesale Gas Supply Licence, in particular, are significant in many

respects as they underscore the focus and priority attention placed on commercial activities in the oil and gas space. The Licensee was granted agas supply licence to purchase nastural gas directly from any lessee or third party, enabling them to sell and deliver wholesale gas to wholesale customers and natural gas distributors at any location in Nigeria.²²

The African Export-Import Bank (Afreximbank), Alphaden Energy & Oilfield Limited Sign \$60 Million Loan Agreement for Gas Processing Facility in Nigeria

²²https://punchng.com/fg-issues-first-wholesale-gas-supply-licence-under-pia/ accessed 20th June 2024.

NEW INVESTMENTS TO DRIVE NIGERIA'S DECADE OF GAS



Afreximbank signed a 7-year term loan agreement with Nigeria's Alphaden Energy & Oilfield Limited for the construction of a 20 million standard cubic feet per day gas processing facility in Bayelsa State, Nigeria sometime in October 2023. The project will be built at the Obama flow station, situated in OML 63. It will have the capacity to produce 405 million tons per day of Liquefied Natural Gas and 294 barrels per day of crude condensates. The loan facility will be repaid from the sale of condensate gas, secured by six off-takers and transported using 20-ton ISO tanks to customers throughout Nigeria's six geopolitical regions. ²³

NIGUS International Signs \$1 Billion Agreement with a Chinese Technology Firm to Advance Gas-Flaring Solutions in Nigeria

Sometime in January, a Nigerian renewable energy company, NIGUS International entered into a \$1 billion agreement with Beijing Zhogmin Xinjunlong New Energy Technology Company Ltd., a Chinese firm, to finance and advance solutions for gas flaring in Nigeria. This pact was signed by the national directive from President Bola Tinubu. The joint venture is focused on integrating cutting-edge technology to utilise gas, 90% of which is currently being flared by converting the flared gas for commercial use, thereby reducing our carbon footprint. This innovative technology is poised to generate Gas-to-Liquid (GTL) products such as synthetic diesel to

enhance the energy mix, Liquefied Natural Gas (LNG) for export, and Liquefied Petroleum Gas (cooking gas), among other advancements. This project will be a paradigm shift, embedding technology where it is needed rather than adding infrastructural cost.²⁴

Construction of Nigeria's First Floating LNG Project

Sometime in May, UTM Offshore Limited (an indigenous oil and gas company), the Delta State Government, and the Nigerian National Petroleum Company Limited (NNPCL) signed a shareholder agreement (SHA) to jointly develop Nigeria's first Floating Liquefied Natural Gas (FLNG) plant. The shareholding participation will have UTM Offshore Limited with 72%, NNPC Limited with 20%, and the Delta State Government with 8% shareholding of the project. The UTM FLNG project is expected to produce 176 million cubic feet of gas per day from the Yoho Field located in OML 104, offshore Nigeria. The construction of this milestone FLNG project is set to commence in 2024. It is expected to significantly reduce gas flaring while supporting the country's commitment to cutting carbon emissions. The project is anticipated to produce over 300,000 metric tonnes of LPG (cooking gas) to be dedicated to the domestic market, create more than 7,000 job opportunities, and contribute to the nation's economic

²³https://aecweek.com/afreximbank-alphaden-energy-oilfield-limited-sign-60m-7-year-term-loan-agreement-for-gas-processing-facility-in-nigeria/accessed 20th June 2024.

²⁴https://businessday.ng/companies/article/nigus-chinese-firm-sign-1bn-deal-to-boost-gas-flaring/#:~:text=Nigus%20International%2C%20a%20Nigerian%20firm,for%20gas%20flaring%20in%20Nigeria.
Accessed 20th June 2024.

NEW INVESTMENTS TO DRIVE NIGERIA'S DECADE OF GAS





development and growth. NNPC Gas, Power and New Energy executive vice-president Mohammed Abdulkabir Ahmed said that the project aligns with the company's efforts to ensure energy availability, affordability and sustainability while generating export revenue.²⁵

Shell & Partners Approve Gas Pipeline for Dangote Fertilizer Plant

Shell, in collaboration with its partners within the Shell Petroleum Development Company of Nigeria (SPDC), in February 2024 announced a major investment decision to support Nigeria's gas ambitions. The joint venture,

alongside the NNPCL, TotalEnergies, EP Nigeria Limited, and Nigerian Agip Oil Company entered a 10-year agreement committing to build a dedicated gas pipeline supplying 100 million standard cubic feet of gas per day from the gas-rich Iseni field in Bayelsa State to the Dangote Fertilizer and Petrochemical Plant in Lekki, Lagos State. This project aligns with the Decade of Gas initiative, and it entails building crucial infrastructure for gas delivery. This increased supply will enable the Dangote plant, Africa's largest granulated urea fertilizer complex, to better fulfil Nigeria's domestic fertilizer demands and enhance the country's export capacity.²⁶

²⁵https://www.upstreamonline.com/Ing/yard-chosen-for-nigeria-s-first-flng-project-as-vessel-size-increases/2-1-1645982?message=[nuxt]+instance+unavailable&stack&statusCode=404&statusMessage=[nuxt]+instance+unavailable&url=/Ing/yard-chosen-for-nigeria-s-first-flng-project-as-vessel-size-increases/2-1-1645982?message=%255Bnuxt%255D%2Binstance%2Bunavailable%26stack%26statusCode=404%26status Message=%255Bnuxt%255D%2Binstance%2Bunavailable%26url=/Ing/yard-chosen-for-nigeria-s-first-flng-project-as-vessel-size-increases/2-1-1645982 accessed 20th June 2024.

²⁶https://africanenergycouncil.org/shell-partners-approve-gas-pipeline-for-dangote-fertilizer-plant/accessed 20th June 2024.





The first three industry events listed below, although significant, are not recent developments as they occurred last year. However, they were not included in our 2023 end-of-year report.

Equinor Exits Nigeria²⁷

In November 2023, Norwegian energy company Equinor announced the sale of its Nigerian business, including its share in the prolific Agbami oil field, to Nigerian-owned Chappal Energies Mauritius Ltd. Equinor also operates OML 129 with a 53.85% shareholding. Three out of four wells

drilled in OML 129 yielded discoveries which classified Bilah, Nnwa and Sehki as non-commercial discoveries, according to a Wood Mackenzie report. Equinor exited in the first three quarters of 2023 with \$61.82 billion in current assets, including \$14.94 billion in cash and cash equivalents. According to its quarterly report in October, Equinor's current liabilities stood at \$34.29 billion as of September 30. The transaction marks the end of Equinor's three-decade presence in Nigeria. The agreement covers the sale of Equinor Nigeria Energy Company (ENEC), which holds a 53.85% ownership in oil and gas lease OML 128, including the unitised 20.21% stake in the Agbami oil field,

²⁷https://www.equinor.com/where-we-are/nigeria_accessed 20th June 2024.



operated by Chevron. Equinor has been a significant player in the development of Nigeria's oil and gas sector, particularly in the Agbami field, which has produced over 1 billion barrels of oil since its inception in 2008. This transaction is in line with Equinor's strategy to optimise its international oil and gas portfolio and focus on other core areas. Chappal Energies, the acquiring company, is a Nigerian-owned energy firm committed to further developing the acquired assets and contributing to the Nigerian economy. The transaction is subject to regulatory and contractual approvals.

ENI's Divestment of its Onshore Licences and Leases to Oando PLC

In September 2023, ENI, an Italian multinational energy company, made an announcement detailing its decision to exit onshore oil exploration in Nigeria. The company disclosed its plans to sell its entire stake, constituting 100%, in its wholly owned subsidiary focusing on onshore oil & gas exploration and production in Nigeria, Nigerian Agip Oil Company Limited (NAOC Ltd), to Oando Plc. Oando Plc, recognized as Nigeria's leading indigenous energy solutions provider, will assume control of NAOC's existing interests in Nigeria. These interests encompass four onshore blocks (OMLs 60, 61, 62, 63) currently operated by NAOC on behalf of NAOC JV (where NAOC Ltd holds 20%, Oando 20%, and NNPC E&P Limited 60%). Additionally, Oando Plc will take over operations in the Okpai 1 and 2

power plants, boasting a combined nameplate capacity of 960MW. Furthermore, Oando Plc will acquire two onshore exploration licenses, namely OPL 282 and OPL 135, with ownership percentages of 90% and 48%, respectively upon obtaining Ministerial consent and other required regulatory approvals. ENI stated that it is moving its focus in Nigeria from the onshore to offshore segment, as the firm intends to keep its other subsidiary, Nigeria Agip Exploration (NAE) and Agip Energy and Natural Resources (AENR). Nigeria LNG will also remain in Eni's portfolio, as these are consistent with Eni's 2023-2026 plan. ²⁸

Completion of the ANOH Gas Processing Plant

The mechanical completion of installation works at the ANOH gas plant was achieved in December 2023. Spearheaded by the ANOH Gas Processing Company Limited (AGPC), an incorporated joint venture between Seplat and the Nigerian Gas Infrastructure Company Limited (a wholly owned NNPC subsidiary), the ANOH gas processing plant located in Owerri, Nigeria's Southeast stands as one of Nigeria's pivotal gas projects. Despite Seplat Energy initially anticipating a third-quarter 2023 delivery, unforeseen delays by third-party entities have pushed the completion schedule back. In February 2021, AGPC, successfully secured \$260 million in debt to facilitate the completion of

²⁸https://www.eni.com/en-IT/media/press-release/2023/09/eni-signs-agreement-sell-naoc.html accessed 22nd June 2024.



the ANOH project. The first phase of the project boasts a processing capacity of 300 million standard cubic feet per day, with the facility set to supply dry gas and LPG to the domestic market, while also delivering condensates to the international market.

Once completed, ANOH will provide two income streams for its owners; wet gas sales from OML 53 to the gas plant and dividends from AGPC, which will operate the plant. The other key steps to first gas, as outlined in AGPC's Interim Results announcement, were the drilling and hook-up of the upstream wells and completion of essential third-party infrastructure; the OB3 pipeline river crossing and Spur Line connecting OB3 to the gas plant. Completion of the third well (ASSN-05) was previously announced and the fourth and final well (ASSN-06) planned ahead of first gas has also now been completed by the upstream unit operator. AGPC now awaits the completion of key plant pre-commissioning activities and third-party infrastructure, which will set the commissioning of the plant and the start of operations in motion.

ANOH is one of Nigeria's most strategic gas projects as it will accelerate Nigeria's transition away from small-scale diesel generators to cleaner, less expensive fuels such as natural gas for power generation and it will ramp up Nigeria's gas production by roughly twofold once operations start. The

project was finally commissioned by President Bola Ahmed Tinubu in May this year, and reports state that if all of the gas from the ANOH gas plant went into the power sector, it would produce enough electricity to transform the lives of over 5 million people.

Shell Divests its Onshore Oil & Gas Assets to Nigerian Consortium

In January 2024, Shell announced that it had agreed to sell the Shell Petroleum Development Company of Nigeria Limited (SPDC) Nigerian onshore oil and gas assets for a total of \$2.4 billion. The buyer, a consortium led by Nigerian independent energy company, Renaissance Oil, includes ND Western, Aradel Energy, First E&P, Waltersmith and Petrolin, and this transaction marks a significant change in the land-scape of Nigeria's oil industry. The assets being sold include Shell's 49% stake in the SPDC Joint Venture, which operates over 30 oil and gas fields onshore, as well as its interest in the Forcados and Bonny export terminals. According to Shell, it will sell the SPDC for a consideration of \$1.3 billion, while the buyers will make an additional payment of up to \$1.1 billion relating to prior receivables at completion making it one of the largest divestments in Shell's history. This transaction marks a significant shift for Shell, which has been operating in Nigeria for over 90 years, and analysts suggest that the sale reflects Shell's broader





divestment strategy, focusing on higher-margin deep-sea and liquefied natural gas (LNG) projects. Additionally, the complex operating environment in Nigeria's onshore fields, coupled with pressure from climate change activism, may have played a role in the decision. The transaction is subject however to regulatory approvals and compliance with the divestment criteria set out by the Commission.²⁹

Optimera Energy Flags off Construction of Gas Facilities in the Lagos Free Zone

Optimera Energy LFZ Enterprise, a consortium made up of Falcon Corporation Limited, FHN Gas Limited and ND Western Midstream Limited,

which are affiliates of upstream companies with combined gas reserves of over 4tcf, currently producing over 350MMscf/d into the Nigerian domestic gas market has in February 2024 flagged off the construction of a 25 million Standard Cubic Feet per day City Gate Station, scalable to 100MMScf/d at the Lagos Free Zone to distribute natural gas to companies operating within the zone. The Managing Director of Optimera Energy said the project included other ancillary infrastructure like the 10km distribution lines within the zone as well as a 6.5km x 10 inches gas pipeline from the Escravos – Lagos Pipeline System tie-in point in the Lekki corridor, outside the zone to Optimera City Gate Station at the LFZ. Following this construction, Optimera Energy signed a 20-year Gas Infrastructure Development Agreement with the

²⁹https://www.shell.com/news-and-insights/newsroom/news-and-media-releases/2024/shell-agrees-to-sell-nigerian-onshore-subsidiary-spdc.html accessed 22nd June 2024.



Lagos Free Zone Company to connect off-takers to its gas distribution infrastructure within the zone. The LFZC invested over \$2.5bn in building this facility integrated with Lekki Deep Seaport in the Zone, and this project is fully aligned with the nation's Decade of Gas aspirations.³⁰

\$1.3 Billion Sale Divestment of ExxonMobil Asset to Seplat is 98% Completed

In a bid to aggressively ramp up Nigeria's hydrocarbon production, the Minister of State, Petroleum announced in a February 2024 meeting with Seplat Energy Plc ("Seplat") that the sale will be closed soonest as the FGN is handling the divestment on a case-by-case basis. In February 2022, Nigeria's former President, President Muhammadu Buhari who doubled as Nigeria's Petroleum Minister at the time approved the divestment of the entire 40% stake in Mobil Producing Nigeria Limited's (MPNU) from Exxon Mobil Corporation to Seplat. MPNU's portfolio includes OMLs 67, 68, 70, 104, one of Nigeria's largest export facilities, the Qua Ibeo Terminal and a 51% interest in Bonny River Terminal as well as Natural Gas Liquids Recovery Plants at East Area Projects (EAP) and Oso. NUPRC however declined approval in May 2022 of the proposed acquisition due to overriding national interest. NNPC with a 60% stake in MPNU equally rejected the sale stating that it had the right of first refusal. NNPC Ltd in exercising

its right of pre-emption went ahead to obtain a court order restraining the sale. In May 2023, Seplat announced that it had extended the Share Sale and Purchase Agreement (SSPA) for the acquisition and that it remains confident that the transaction will be approved, and all associated legal issues resolved.³¹

The NUPRC Releases Regulatory DivestmentFramework for Exiting International Oil Companies

The NUPRC sometime in March 2024 made public the conditions that exiting IOCs must fulfil for divestment deals to be approved. These include the demonstrable and verifiable technical and financial capacity of the successor entity to operate the asset vigorously and in a business-like manner, settlement of applicable decommissioning and abandonment costs and obligations by divesting party, the robustness of divesting party's Host Community Trust Fund and successor entity's social inclusion programme, divesting entity's adherence to decarbonisation plans and sound Environmental Social and Governance (ESG) principles amongst others. The Chief Executive Officer of the NUPRC at the just concluded Nigeria International Energy Summit (NIES) stated that the NUPRC was not interested in blocking companies interested in divestment but insisted on following due process.³²

³⁰ https://www.lagosfreezone.com/media/news-events/news-article/optimera-energy-constructs-gas-facilities-in-lagos-free-zone/ accessed 22nd June 2024.

³¹https://guardian.ng/1-3b-exxonmobil-seplat-divestment-98-completed/ accessed 22nd June 2024.

³²https://theenergyrepublic.com/nuprc-releases-regulatory-framework-for-asset-divestment-in-oil-gas-sector/#:~:text=The%20Nigerian%20Upstream%20Petroleum%20Regulatory,be% 20approved%20by%20the%20commission. Accessed 22nd June 2024.

PROJECTIONS FOR NIGERIA'S GAS INDUSTRY





2024 and beyond will witness many investments in the upstream sector, both from the international and indigenous scene. The NUPRC disclosed during the Nigerian Oil and Gas Opportunity Fair (NOGOF) in May 2023 organised by the NCDMB themed "The Oil and Gas Industry-Catalyst and Fuel for Industrialization of Nigeria" that its doors have been thrown open to potential investors who wish to collaborate in building partnerships and unlocking the full potential of Nigeria's upstream petroleum industry while leveraging the PIA.³³

As energy demand continues to increase despite the current drive for decarbonization and the challenges of transition, the demand for hydrocarbon liquid fuels and natural gases also continues to increase globally and in Africa. Total energy demand in the world and Africa are estimated to increase by 32% and 50% respectively by 2050 from the 2020 values.

There has been under-investment in Nigeria's upstream petroleum sector, and this is also reflected in the country's rig count. On average,

³³https://www.nuprc.gov.ng/wp-content/uploads/2023/07/NUPRC-GAZE-Magazine-Vol.4.pdf accessed 22nd June 2024.

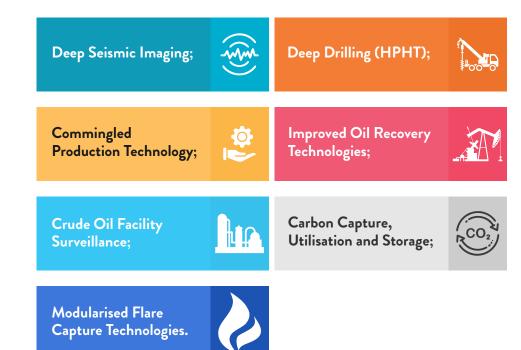
PROJECTIONS FOR NIGERIA'S GAS INDUSTRY



Nigeria had 17 active oil rigs in 2019 representing one of the highest counts on the African continent as of then. Nigeria's average rig count declined to 11 in 2020, 7 in 2021, and 10 in 2022, but recently grew to 24 in April 2023, a positive signal of new investments trickling into the country. This is also a reflection of investors' acceptance of the effective implementation of the PIA by the regulator.

Following two years of high energy prices, the global oil & gas industry is experiencing a boom that could be directed to capital investment upstream. The projected outlook over the next few years is positive, and the FG needs to leverage this opportunity by doing all that is necessary to attract more investments and revive the Nigerian upstream sector. With a total of over 620 trillion cubic feet of natural gas reserves, Africa is poised to develop cleaner fossil fuels to offset the deficits in the world energy supply but requires the right implementation of the legislative framework and a change in policy direction to design a system that will foster energy sufficiency while simultaneously attending to the urgency of ending carbon emissions. Future growth and revenue projections from natural gas are just as promising. One such pivotal projection is that the demand for natural gas will grow at a compound annual growth rate of 16.6% per annum between 2020 and 2030. The growth projections are expected to be propelled by significant ventures including the Nigeria Liquefied Natural Gas (NLNG) Train 7 in the

base case scenario, and the Nigeria/Morocco pipeline, NLNG Train 8, and Ajaokuta Kaduna-Kano (AKK) pipeline in the high case scenario. The Commission has forecasted the following as the anticipated technological requirements for Nigeria's upstream sector in 2024 and beyond:



PROJECTIONS FOR NIGERIA'S GAS INDUSTRY



There are also projected key regulatory focus areas for 2024 and beyond which will stand on the trilemma balance of Environmental Sustainability, Energy Security and Energy Equity, and these are:







The numerous advantages natural gas offers as a cleaner alternative to fossil fuels, and its potential for power generation, industrial use, and exportation cannot be overlooked. As one of the largest producers of natural gas in Africa, Nigeria has a golden opportunity to leverage this resource to bolster its economic resilience. The nation's prioritisation of investments in natural gas is expected to perpetually inspire much-needed economic diversification and increased revenue generation.

Hence, revenue generation from natural gas in recent years has been unsurprisingly remarkable as demand increases. In June 2022, the NNPCL revealed that Nigeria had generated more than \$1 billion solely from the sale of natural gas to Portugal that year. Recent data released by the National Bureau of Statistics (NBS) puts that revelation into perspective. The NBS report indicates the country experienced a 100% surge in Liquefied Natural Gas (LNG) sales over the past two years with





revenue increasing from N1.4 trillion in 2020 to N2.8 trillion in 2022—the highest in six years. 2024 and beyond will witness many investments in the upstream sector, both from the international and indigenous scene. The Commission disclosed during the Nigerian Oil and Gas Opportunity Fair (NOGOF) in May 2023 organised by the NCDMB themed "The Oil and Gas Industry-Catalyst and Fuel for Industrialization of Nigeria" that its doors have been thrown open to potential investors who wish to collaborate in building partnerships and unlocking the full potential of Nigeria's upstream petroleum industry while leveraging the PIA. The present administration has indicated that the target is to grow reserves through deliberate oil and gas exploration, deep drilling, prospects maturation appraisal, field

studies and improved oil recovery. Results are already showing. Associated Gas reserves stood at 102.32 trillion cubic feet while Non-Associated Gas reserves was 106.51 trillion cubic feet as of January 2023. With the attractive fiscal, legal and regulatory provisions in the PIA, vast investment opportunities abound for investors to leverage. Some of these opportunities include the development of deeper hydrocarbon opportunities, conversion of producing marginal fields to Production Mining Leases (PMLs) and clear definitions for domestic supply and delivery of crude oil and gas respectively to create the potential for a robust domestic market to mention just a few.

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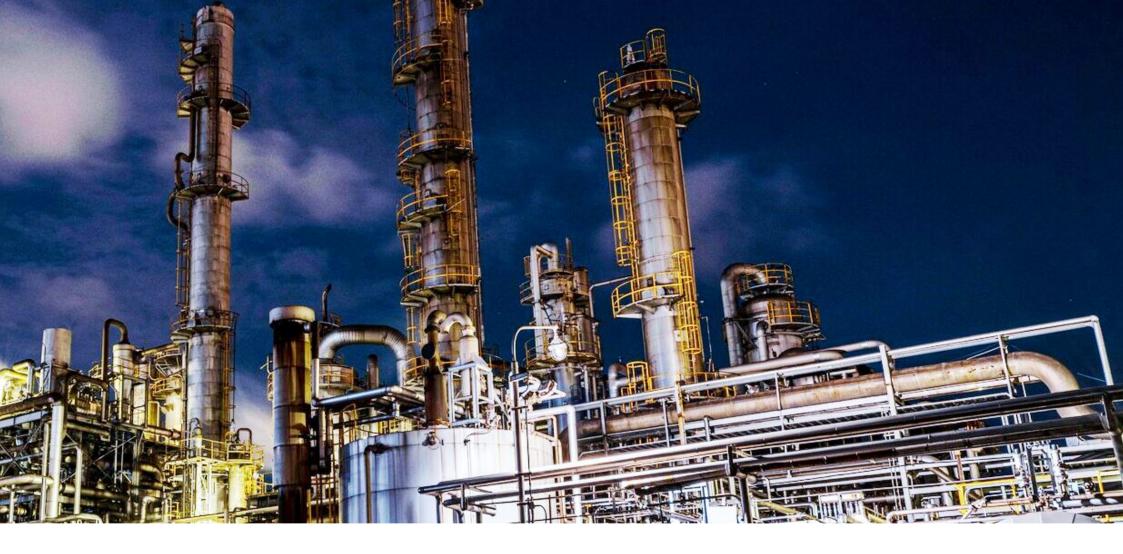
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