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### **CONTENTS**

List of Figures List of Tables List of Abbreviations Foreword Institutional Players Council Members	4 4 5 7 8 9
Section 1: Overview of Ghana's Upstream Industry	16
1.1 Background	16
1.2 Legal and Regulatory Framework of Ghana's Upstream Petroleum Industry	17
1.3 Institutional Framework	18
1.4 Commercial Players	19
1.5 Concessions and Performance of Agreements	20
1.6 Oil and Gas Reserves	22
1.7 Performance of the Non-producing Petroleum Agreements in 2024	23
1.8 Upstream Rig Activity in 2024	24
1.9 Production Activities	25
1.9.1 Oil production in 2024	25
1.9.2 Gas Production in 2024	27
1.9.3 Gas for Power Generation in 2024 1.9.4 Economic Benefits of Gas for 2024	28 29
1.10 Key Upstream Developments in 2024	29
Section 2: Oil and Gas Receipts and Contributions to Economy	36
2.1 Oil and Gas Investments in 2024	36
2.2 Macroeconomic performance of the oil and gas industry in 2024	37
2.3 Fiscal Performance of the oil and gas industry	39
2.4 Revenue Distribution	40
2.5 The Annual Budget Funding Amount (ABFA) and Public Investments	42
2.6 The Ghana Petroleum Funds	43
2.7 Local Content and Local Participation	44
Section 3: Global Outlook for Oil and Gas in 2024	49
3.1 The Oil and Gas Industry in 2024	49
3.2 Global oil production and demand in 2024	51
3.3 Global Rig Activity 2024	52
Section 4: Conclusions and Recommendations	56
4.1 Conclusions	56
4.2 Recommendations	57
1. Restore Predictability of the Regulatory Regime to Improve Business Confidence	57
2. Promote Exploration and Expedite Investment Incentives	58
3. Maximize Value from Natural Gas	58

### **LIST OF FIGURES**

Figure 1:	Gnana Offshore Activity Map	21
Figure 2:	2024 Rig Activity	24
Figure 3:	Total Oil Production 2022-2024	25
Figure 4:	Trend of Oil Production (2019-2024)	26
Figure 5:	Total Gas Production 2022-2024	27
Figure 6:	Gas Utilization in 2024	27
Figure 7:	Gas Exports vs Reinjection (2019-2024)	28
Figure 8:	Sources of Gas Supply in 2024	28
Figure 9:	Distribution of Investment Costs Across Producing Fields (2024)	37
Figure 10:	Trend of oil and gas industry contribution to GDP (2013 – 2024)	38
Figure 11:	: Total Merchandise Exports (2023-2024)	39
Figure 12:	Contribution of Revenue Sources to Total Petroleum Revenue 2023-2024	39
Figure 13:	Share of Contributions from Revenue Sources 2024	40
Figure 14:	Petroleum Revenue Distribution	41
Figure 15:	Petroleum revenue distribution 2024	41
Figure 16:	Petroleum Revenue Distribution in 2024	43
Figure 17:	ABFA distribution beyond the priority areas	43
Figure 18:	Comparing Upstream Value of Services in 2023 and 2024	45
Figure 19:	Average Brent Crude Oil Prices from January to December 2023 and 2024	50
Figure 20:	Average Monthly Global Demand and Consumption of Petroleum in 2024	51
Figure 21:	Average Global and Africa Monthly Rig Counts 2023 - 2024	52
LIST	OF TABLES	
Table 1:	Institutional Framework	18
Table 2:	Active  Petroleum  Agreements  in  Ghana's  Upstream  Industry	21
Table 3:	Estimated Reserves as at 31 December 2024	22
Table 4:	Activity on non-producing blocks	23
Table 5:	Cost Savings from Domestic Gas Utilization	29
Table 6:	Oil and Gas investments in 2024	36
Table 7:	Macroeconomic Performance of the Oil and Gas Industry, 2024	37
Table 8:	Contribution of Top Ranked Economic Activities to GDP in 2024	38
Table 9:	Net Accumulated Reserve of the Ghana Petroleum Funds in 2024	44
Table 10:	Value of Upstream Services in 2023 and 2024	45

### **ABBREVIATIONS**

ABFA Annual Budget Funding Amount

BBL Barrel

BCF Billion Cubic Feet
BOE Barrels of Oil Equivalent
BTU British Thermal Units

CAPI Carried and Participating Interest

CIT Corporate Income Tax

DACF District Assemblies Common Fund

DWT DeepwaterTano

DWT/CTP DeepwaterTano Cape Three Points
E&P Exploration and Production
ECG Electricity Company of Ghana
EIA Energy Information Administration
EPA Environmental Protection Agency
ESG Environmental, Social, and Governance

GBA Ghana Bar Association
GDP Gross Domestic Product

GHEITI Ghana Extractive Industries Transparency Initiative

GHF Ghana Heritage Fund

GIIF Ghana Infrastructure Investment Fund

GJA Ghana Journalists Association

GNGCL Ghana National Gas Company Limited
GNPC Ghana National Petroleum Corporation

GOIL Ghana Oil Company Limited

GOSCO GNPC Operating Services Company Limited

Ghana Petroleum Funds **GPF GPF** Ghana Petroleum Fund **GSA** Gas Sales Agreement **GSF** Ghana Stabilisation Fund **HSE** Health, Safety and Environment IGC Indigenous Ghanaian Company International Oil Company IOC LI Legislative Instrument LNG Liquefied Natural Gas MMBtu Million British Thermal Units Million Standard Cubic Feet **MMSCF OCTP** Offshore Cape Three Points

OPEC Organization of Petroleum Exporting Countries
OPCO East Keta Operating Company Ghana Limited

ORF Onshore Receiving Facility
PA Petroleum Agreement
PC Petroleum Commission
PHF Petroleum Holding Fund

PIAC Public Interest and Accountability Committee
PNDCL Provisional National Defense Council Law

POD Plan of Development

PRMA Petroleum Revenue Management Act

SGN Sankofa Gye-Nyame

SWAOCO Swiss African Oil Company Limited

TCF Trillion Cubic Feet

TEN Tweneboa-Enyenra-Ntomme
TUC Trades Union Congress
WTI WestTexas Intermediate





THE **GHANA UPSTREAM PETROLEUM CHAMBER** IS THE UMBRELLA ORGANISATION FOR THE UPSTREAM OIL AND GAS INDUSTRY IN GHANA.

### **FOREWORD**

In 2024, the Ghanaian upstream petroleum sector saw a slowdown in the decline of oil production compared to previous years and a continued increase in natural gas output. While this is a relatively positive sign for the industry, all stakeholders must work together to develop a more sustainable business environment for this vital resource. An essential part of this effort is revitalizing investor interest in Ghana's oil and gas sector. Resolving long-standing disputes between the Ghanaian government and certain companies in the industry was a very welcome development. It has positively influenced the overall investment climate, prompting major industry players to show renewed interest.

Despite a decrease in oil production, 2024 saw an increase in sector revenue due to higher crude prices. However, to fully capitalize on the better crude prices, there is a need for more exploration and new development projects to raise production levels significantly. In this context, plans for increased investment by the Jubilee, TEN, and OCTP partners couldn't have come at a better time.

Natural gas continues to hold a unique position in the sector. The ongoing and increasing use of natural gas for power generation has saved the country over \$680 million by replacing liquid fuel. This is extremely important for the economy. We must accelerate projects that improve and expand gas infrastructure and provide the necessary financial guarantees and payments to encourage further investment.

Despite the challenges faced throughout the year, crude oil contributed nearly \$4 billion to the country's merchandise export earnings, which highlights its significant role in Ghana's economy. The Ghana Petroleum Fund received \$584 million, a 76% increase compared to what was paid in 2023.

With the government's increasing efforts to restore predictability to the regulatory environment and improve the business climate, the sector has the potential to contribute even more to the country's economic growth. Time is clearly of the essence, and all stakeholders must come together to boost exploration and production activities to increase reserves, unlock new opportunities, and provide greater rewards for the country and investors alike.

Hopefully, this year's report will remind stakeholders of the sector's key issues and help create

a common strategy for the industry's growth.

CEO, Ghana Upstream Petroleum Chamber

David Augusto

### **INSTITUTIONAL PLAYERS**



HON. JOHN JINAPOR Minister of Energy and Green Transition

The Ministry of Energy has policy coordination and oversight responsibilities over upstream petroleum activities. It is responsible for policy formulation, implementation, monitoring and evaluation, and the supervision and coordination of activities of petroleum sector agencies manner



MS. EMEAFA HARDCASTLE
Chief Executive Officer, Petroleum Commission

The Petroleum Commission (PC) regulate and manage the utilization of petroleum resources and coordinates the policies in relation to them. Its regulatory and management functions include monitoring compliance with industry laws and regulations, promoting local content and local participation, petroleum data management, issuing permits for specific petroleum activities and advising the Minister of Energy on petroleum matters.



PROFESSOR NANA AMA BROWNE KLUTSE
Chief Executive, Environmental Protection Agency

The Environmental Protection Agency (EPA) works closely with the Petroleum Commission for the enforcement and control of Health, Safety and Environment (HSE) standards and requirements in the upstream industry. They ensure that that industry players comply with the environmental principles, guidelines and requirements established in the EPA Act.



CONSTANTINE K.M KUDZEDZI, ESQ Chairperson, PIAC

The Public Interest and Accountability Committee (PIAC) is the statutory body with oversight responsibility of the management and use of the country's petroleum revenues.



MR. KWAME NTOW AMOAH
Chief Executive, Ghana National Petroleum Corporation

The Ghana National Petroleum Corporation (GNPC) is the state agency responsible for the exploration, licensing, and distribution of petroleum-related activities in Ghana.



MS. JUDITH BLAY
Chief Executive Officer, Ghana Gas

Ghana National Gas Company (GNGC) is the nation's premiere mid-stream gas business company that owns and operates infrastructure required for the gathering, processing, transporting and marketing of natural gas resources in Ghana and internationally.

### **COUNCIL & MEMBERS**



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AHWIRENG

Managing Director, MODEC Ghana

Vice Chairman of Council



DAVID AMPOFO
CEO, G.U.RC.
Council Member



JEAN-MEDARD MADAMA MD, Tullow Oil Ghana Ltd. Council Member



KADIJAH AMOAH
CEO, Pecan Energies
Council Member



PAUL MCCAFFERTY

General Manager, Exploration,
Heritage E&P Ghana Ltd.

Council Member



MR. JOSEPH DADZIE

Managing Director,
Vitol Upstream Ghana Ltd.
Council Member



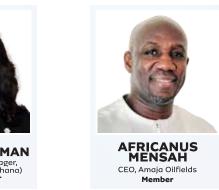
KWEKU AWOTWI
Independent
Council Member



Managing Director,
SLB Ghana
Council Member







### **COUNCIL & MEMBERS**



**ABIGAIL A. HARLEY** CEO, AI Energy **Member** 



**KWAKU ENNIN** CEO, Zeal Environmental Technologies **Member** 



**KOFI AMOA-ABBAN** CEO, RigWorld **Member** 



JOSEPH KOJO BINNEY CEO, BajFreight Member



**PHILIP YEBESI** Executive Chairman, Bayfield Oil Services **Member** 





M.C. VASNANI CEO, CONSHIP Member



**DAVID ADOMAKO** Executive Director, Tanoil Member



Managing Director, TechnipFMC Engineering Services Ltd. **Member** 



Managing Director, GOIL Company Limited **Member** 



FREDRICK HESSE-TETTEH Executive Director, Harlequin International (Chana) Limited Member



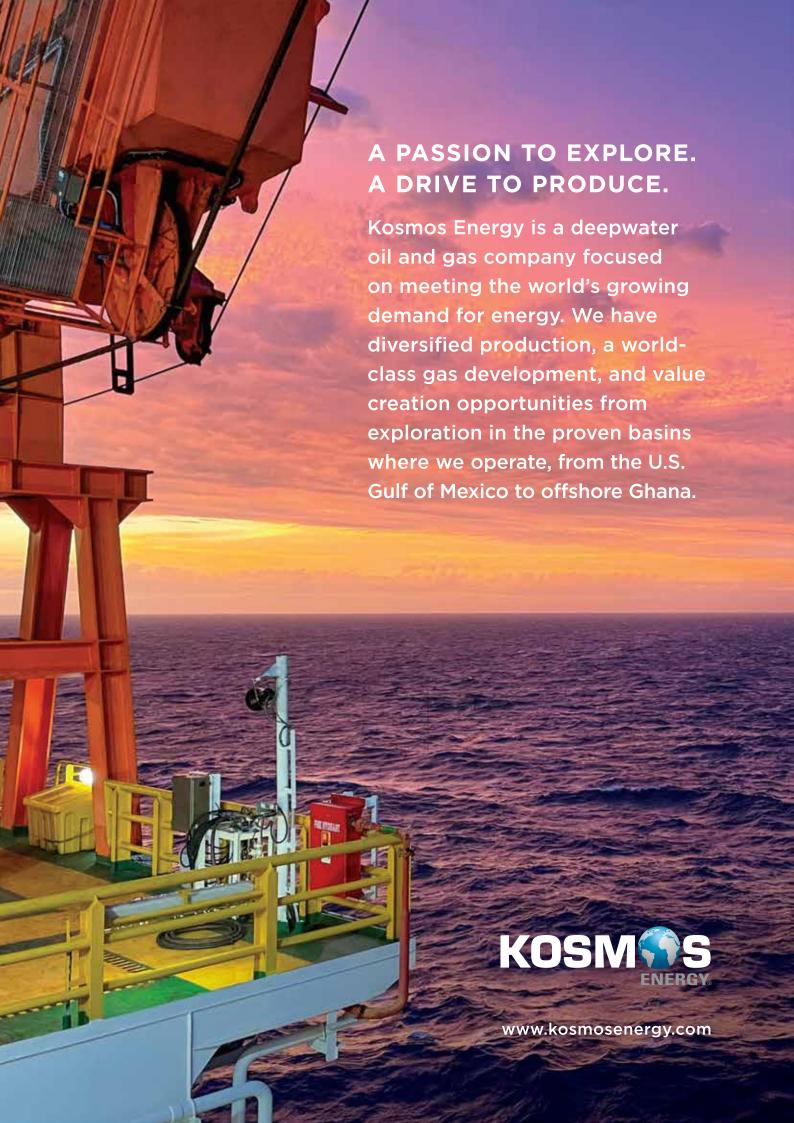






Eni Ghana Exploration and Production Limited
Bradley Tower Building
William Tubman Road Ridge
Accra – Ghana
www.eni.com





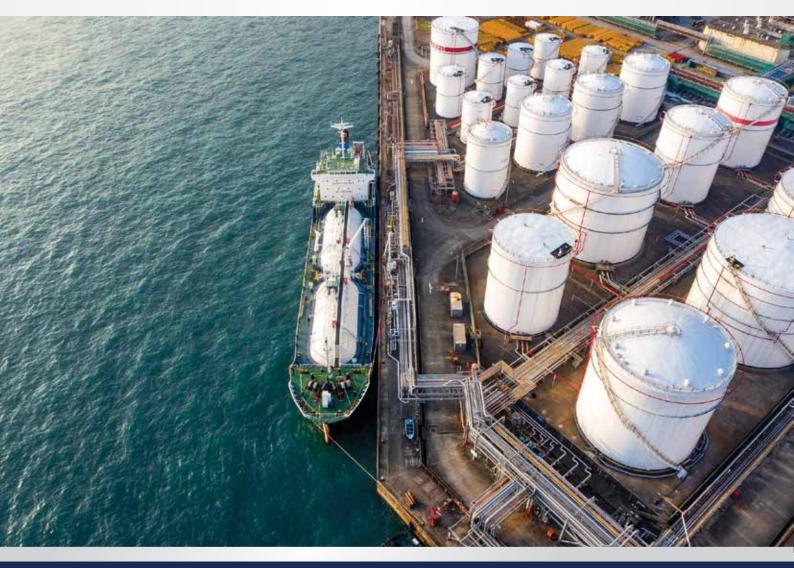


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## OVERVIEW OF GHANA'S UPSTREAM INDUSTRY

### **1.1** Background

The upstream oil and gas industry remains one of the most essential sectors in Ghana's economy, serving as a key driver for revenue generation and energy security. In 2024, crude oil continued to be Ghana's second-largest export, contributing about \$3.82 billion, or 18.38 percent of total merchandise exports. The sector also generated roughly \$1.35 billion in direct revenue for the government, representing a 27.5 percent increase from the previous year, bringing Ghana's total petroleum receipts since production began in 2011 to \$11.16 billion. These numbers highlight the vital role the petroleum industry plays in supporting Ghana's fiscal and macroeconomic stability.

"In 2024, the oil and gas sector brought in about \$1.35 billion in direct revenue for the State. This represents a 27.5% increase from the previous year, pushing Ghana's total petroleum revenue to \$11.16 billion since production began in 2011."

Despite its strategic importance, Ghana's upstream oil sector is at a critical point. After peaking at 71.44 million barrels in 2019, the country has experienced a steady and steep decline in crude oil production. By 2024, output dropped to 48.24 million barrels, a decrease of over 23 million barrels. Although 2024 shows a slight 0.02 percent decline compared to 2023, it highlights a troubling structural trend that, if not addressed, could threaten the long-term viability and competitiveness of the sector.

Encouragingly, natural gas production saw a notable rise in 2024. Of the total gas produced, 115.4 Bcf was exported for power generation and industrial use, reinforcing natural gas's vital role in the domestic energy mix. Notably, the commercialization of natural gas continues to bring substantial economic benefits to Ghana. In 2024, gas use helped save approximately \$682.54 million by replacing more expensive liquid fuels in power generation and industrial processes. This highlights the increasing importance of gas as both a transition fuel and a strategic resource in Ghana's energy security framework.

Yet, unlocking the full value of Ghana's petroleum resources requires more than just production efficiency; it also requires restoring investor confidence and establishing a

strong regulatory framework. The recent international arbitration cases involving the Government of Ghana and upstream companies such as Eni, Vitol, Springfield, Tullow, and PetroSA have highlighted urgent concerns regarding regulatory quality, contract sanctity, and dispute resolution mechanisms. The resolution of the Eni/Vitol/Springfield dispute in 2024 is a positive development and is expected to lead to increased investment and output in the near future. However, these events have revealed underlying vulnerabilities in Ghana's regulatory system that, if left unaddressed, could hinder future capital inflows into the sector.

This comes at a time when global upstream investment is becoming more selective. With international capital fluctuating due to energy transition pressures, geopolitical risks, and ESG considerations, Ghana must ensure its investment climate remains competitive and predictable. Global oil and gas companies are consolidating their exploration portfolios, focusing on jurisdictions that provide legal certainty, regulatory transparency, and a fair risk-reward balance. To stay attractive in this environment, Ghana needs to pursue targeted reforms to improve policy coherence, contract enforcement, licensing transparency, and the speed of regulatory approvals. Ghana must actively work to reduce infrastructure and regulatory bottlenecks that hinder project development, especially in gas monetization.

Recent steps by the government to reverse the production decline through improved engagement with industry and reform are encouraging. However, these initiatives must be institutionalized, sustained, and accompanied by clear communication to upstream actors.

This 2025 Upstream Petroleum Report offers a detailed overview of sector performance, emerging trends, and strategic challenges. It provides essential data and insights to guide public discussion and influence policy decisions. The Upstream Petroleum Chamber stays dedicated to collaborating with the government and other stakeholders to ensure Ghana's upstream petroleum sector creates inclusive and sustainable value for future generations.

### 1.2 Legal And Regulatory Framework Of Ghana's Upstream Petroleum Industry

The upstream petroleum industry in Ghana is governed by a framework of laws and regulations administered by designated governance institutions. Before the commercial discovery of oil, key legal instruments included the Ghana National Petroleum Corporation Act, 1983 (PNDCL 64), the Petroleum (Exploration and Production) Act, 1984 (PNDCL 84), and the Petroleum Income Tax Act, 1987 (PNDCL 188). In response to evolving industry dynamics and the need for greater transparency in awarding oil blocks, the Petroleum (Exploration and Production) Act, 2016 (Act 919) was introduced, repealing PNDCL 84. However, PNDCL 84 still applies to contracts signed under its provisions.

Several regulations have been developed to operationalize Act 919, including:

- Petroleum (Exploration and Production) (Measurement) Regulations, 2016 (L.I. 2246)
- Petroleum (Exploration and Data) (Data Management) Regulations, 2017 (L.I. 2257)

- Petroleum (Exploration and Production) (Health, Safety and Environment) Regulations, 2017 (L.I. 2258)
- Petroleum (Exploration and Production) (General) Regulations, 2018 (L.I. 2359)
- Petroleum (Exploration and Production) (General) (Amendment) Regulations, 2019 (L.I. 2390)

Beyond these, other regulations have implications for the operations of the industry. These include:

- Petroleum (Local Content and Local Participation) Regulations, 2013 (L.I. 2204)
- Petroleum Commission (Fees and Charges) Regulations, 2015 (L.I. 2221)
- Ghana Shipping (Protection of Offshore Operations and Assets) Regulations, 2012 (L.I 2010)
- Ghana Maritime Authority (Fees and Charges) Regulations, 2012 (L.I 2009)
- Environmental Assessment Regulations, 1999 (L.I 1652) as amended by (LI 1703)

In 2015, the Income Tax Act, 2015 (Act 896), as amended, was enacted with industry-specific provisions (Part VI of Act 896) that effectively repealed the Petroleum Income Tax Act, 1987 (PNDCL 188) and set out the fiscal regime for the industry. Similarly, the Petroleum Revenue Management Act (PRMA), 2011 (Act 815), as amended, was also enacted to govern the collection, allocation, distribution, and expenditure of Ghana's share of petroleum revenues from the fiscal regime set in Act 896.

### 1.3 Institutional Framework

The upstream industry is governed by institutions clothed with legal and statutory oversight powers to manage the effective exploitation of Ghana's petroleum resources. The key institutions include the Ministry responsible for the petroleum activities (currently the Ministry of Energy and Green Transition), the Petroleum Commission, the Environmental Protection Authority (EPA) and the Public Interest and Accountability Committee (PIAC).

**Table 1:** *Institutional Framework* 

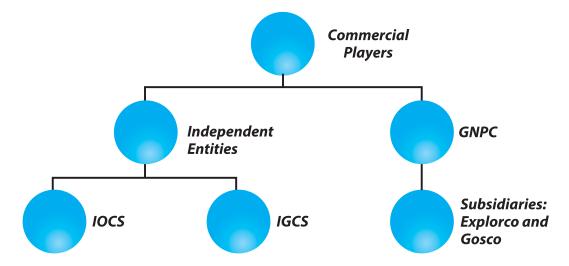
### INSTITUTION **FUNCTIONS** The Ministry has policy coordination and oversight responsibilities over upstream petroleum activities. It is responsible for policy formulation, implementation, monitoring and evaluation, and the supervision and **MINISTRY OF** coordination of activities of petroleum sector agencies. Moreover, the Petroleum (Exploration and Production) Act, 2016 (Act 919) also spells out **ENERGY** AND GREEN a myriad of responsibilities of the Ministry responsible for petroleum **TRANSITION** (currently the Ministry of Energy), including the award of petroleum blocks, approval for the assignment of interests and operatorship, and approval for the development and decommissioning plans among others. The Ministry has been recently renamed with an emphasis on "green transition" to reflect the new government's priorities for a green transition.

<sup>&</sup>lt;sup>1</sup> https://www.energymin.gov.gh/about

INSTITUTION	FUNCTIONS
PETROLEUM COMMISSION	The Petroleum Commission was created by the Petroleum Commission Act, 2011 (Act 821) to regulate and manage the utilization of petroleum resources and coordinate the policies in relation to them. Its regulatory and management functions include monitoring the compliance with industry laws and regulations, promoting local content and local participation, petroleum data management, issuing permits for specific petroleum activities and advising the Minister of Energy on petroleum matters.
ENVIRON- MENTAL PROTECTION AGENCY (EPA)	The EPA, formerly an Agency, has been made into an Authority by the enactment of the Environmental Protection Act, 2025 (Act 1124). Initially established by the Environmental Protection Agency Act, 1994 (Act 490), the EPA works closely with the Petroleum Commission for the enforcement and control of Health, Safety and Environment (HSE) standards and requirements in the upstream industry. The Petroleum (Exploration and Production) Act, 2016 (Act 919) mandates industry players to comply with the environmental principles, guidelines and requirements established in the Environmental Protection Act.
PUBLIC INTEREST ACCOUNT- ABILITY COMMITTEE (PIAC)	PIAC is a statutory body established by the Petroleum Revenue Management Act (PRMA), 2011 (Act 815), with independent citizenry oversight over the management of Ghana's petroleum revenues. The Committee comprises representatives from 11 groups covering a cross section of trade, industry, religious and civil society groups and associations (See box for more details). The PRMA charges PIAC with the responsibilities of monitoring and evaluating the compliance of government and other relevant institutions with the provisions of the PRMA. PIAC is also mandated to provide a platform for public debate and provide independent assessments of the country's management and use of petroleum revenue. In 2015, the PRMA was amended to provide sustainable financing for the Committee from petroleum revenues, marking a departure from the earlier practice of discretionary funding from the Ministry of Finance, which stifled their operations.

### **1.4** Commercial Players

Ghana's upstream petroleum sector is characterized by two main categories of commercial actors: state-owned entities and independent operators. The Ghana National Petroleum Corporation (GNPC), as the national oil company, serves as the principal vehicle for the State's commercial participation in the industry. GNPC also operates through two key subsidiaries—Explorco and GOSCO—which support its upstream mandate. Among independent operators, entities are further classified into International Oil Companies (IOCs) and Indigenous Ghanaian Companies (IGCs), each contributing distinctly to exploration and production activities under various petroleum agreements.



- Ghana National Petroleum Corporation (GNPC) The Corporation is the national oil company mandated to represent the commercial interests and strategic objectives of the Ghanaian state in the upstream petroleum sector. Established under the Ghana National Petroleum Corporation Act, 1983 (PNDCL 64), GNPC is party to all petroleum agreements, ensuring that the state's entitlements and policy priorities are safeguarded throughout exploration and production activities.
- International Oil Companies (IOCs) are the foreign-owned exploration, production, and oilfield service companies operating within Ghana's petroleum basins. While classified as foreign entities under applicable legislation, these companies are required to register and incorporate their operations locally in order to conduct business in the upstream petroleum industry. The E&P companies currently operating in Ghana's upstream industry include Ghana include Kosmos Energy, Tullow, Aker Energy, Vitol Upstream, Eni, AGM Petroleum, and Heritage E&P, among others. Service companies operating in Ghana include MODEC, Baker Hughes, Schlumberger, and Halliburton among others.
- Indigenous Ghanaian Companies (IGCs) are significantly owned by Ghanaians (not less than 80%) operating in the upstream industry. They may be either E&P companies such as Springfield E&P, Woodfields Upstream, and GOIL Offshore Limited, or service companies such as Rigworld, Amaja Oilfield Limited, Zeal Environmental Technologies Limited, Al Energy Group, and Bayfield Oil Services Limited, among others. The Petroleum (Local Content and Local Participation) Regulations, 2013 (L.I 2204) requires at least five percent equity participation of an indigenous Ghanaian company for any petroleum agreement or license. LI 2204 also mandates international service companies to form joint ventures with an indigenous Ghanaian company, with the Ghanaian company holding at least ten percent participating interest.

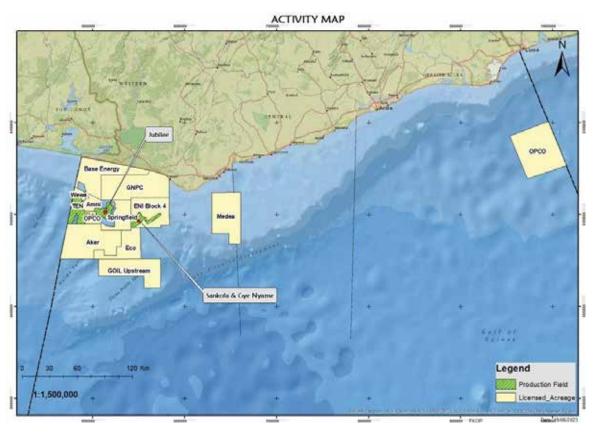
### **1.5** Concessions And Performance Of Agreements

As of the end of 2024, the number of active petroleum agreements in Ghana remains at 13. The Jubilee, TEN, and Sankofa-Gye Nyame (SGN) fields continue to be the only producing assets, operating within the Deepwater Tano, West Cape Three Points, and Offshore Cape Three Points blocks, respectively. No new petroleum agreements were executed during the period under review. The list of existing petroleum agreements is shown in Table 2:

**Table 2:** Active Petroleum Agreements in Ghana's Upstream Industry

No	Block	Operator	Effective Date	Phase
1.	West Cape Three Points	Tullow Ghana	2004	Production
2.	Deep Water Tano	<b>Tullow Ghana</b>	2006	Production
3.	Deep Water Tano Cape Three Points	<b>Pecan Energies</b>	2006	Development
4.	Offshore Cape Three Points	Eni	2006	Production
5.	East Cape Three Points	MEDEA	2012	Exploration
6.	Central Tano Block	AMNI	2014	Exploration
7.	Expanded Shallow Water Tano	Base Energy	2015	Exploration/Appraisal
8.	East Keta Offshore	ОРСО	2015	Exploration
9.	DWCTP West Offshore	PetroGulf	2015	Exploration
10.	Offshore Southwest Tano	ОРСО	2015	Exploration
11.	Cape Three Points Block 4	Eni	2016	Appraisal
12.	West Cape Three Points 2	Springfield E&P	2016	Appraisal
13.	Deep Water Cape Three Points	Planet One	2018	Exploration

Figure 1: Ghana Offshore Activity Map



Source: **GNPC** 

### **1.6** Oil And Gas Reserve

The total oil reserves for the country from the oil producing fields at the end of 2024 is estimated at about 1,794.9 MMbbl. 1,081.9 as contingent and 713 as proven and probable (2P) reserves. With respect to the totality of current proven oil reserves, the Jubilee field makes up 44 percent of the oil reserves, TEN field has about 11 percent of the oil reserves, SGN has 10 percent while other petroleum Initially-in-Place reserves such the Pecan Field, and resources from 4 active blocks (ESWT, DWT/CTP, CTP BLK 4, and WCTP BLK 2) would constitute about 35 percent.

Regarding natural gas, the total reserves is estimated at 3,964 BCF. 2,329 bcf as contingent and 1,635bcf as proven and probable (2P) reserves. With respect to the totality of current proven gas reserves, the Jubilee field makes up 28 percent of the gas reserves, TEN field has about 26 percent of the oil reserves, SGN has 46 percent while Petroleum Initially-in-Place reserves such as Pecan Field, and resources from 4 active blocks (ESWT, DWT/CTP, CTP BLK 4, and WCTP BLK 2). Table 2 below provides a summary of the estimates from the various fields.

**Table 3:** Estimated Reserves as at 31 December 2024

	As a	at 31 December 2024
Resources (2C)	Contingent	Resources (2P)
Crude Oil and Condensates (MMBOE)		
Jubilee	51	312
TEN	105.9	81
Sankofa & Gye Nyame	-	74
Other (1)	925	246
<b>Total Oil and Condensates</b> (MMBOE)	1,081.9	713
Natural Gas (BCF) (2)		
Jubilee	-	463
TEN	48	430
Sankofa & Gye Nyame	286.9	742
Other (3)	1,993.6	-
Total Natural Gas (BCF)	2,328.5	1,635
Total Natural Gas (MMBOE) (4)	401.5	282
Grand Total (MMBOE)	1,483.3	995

Source: GNPC/Petroleum Commission

- (1) Other oil reserves are reserves from the Pecan Field. Other contingent oil resources are resources from 4 active blocks (ESWT, DWT/CTP, CTP BLK 4, and WCTP BLK 2) and two open acreages.
- (2) Natural Gas reserves are reported as Sales (Export) Gas.
- (3) Other contingent gas resources are resources from 4 active blocks (ESWT, DWT/CTP, CTP BLK 4, and WCTP BLK 2) and an open acreage.
- (4) Natural Gas volumes are converted to oil equivalent using a factor of 5,800 standard cubic feet per barrel.

### 1.7 Performance of the Non-producing Petroleum Agreements in 2024

During the 2024 review period, three oil blocks with existing discoveries remained Ghana's most promising prospects for additional oil production in the short to medium term. These include Cape Three Points Block 4, Deep Water Tano/Cape Three Points, and West Cape Three Points Block 2. In 2024, the progress made in advancing these discoveries towards production are reviewed below:

- Eni's Cape Three Points Block 4 Drilling of the Eban-2A appraisal well commenced on November 9, 2024, utilizing the Borr Natt jack-up rig. The operator aims to appraise the Eban and Akoma discoveries and is expected to conclude in 2025. In relation to the Aprokuma-1X discovery, Eni completed the desktop appraisal phase in June 2024 and subsequently submitted a request to drill an appraisal well to delineate the Albian play. Subsequently, the Petroleum Commission has granted two extensions to facilitate the drilling campaign, allowing Eni to undertake a more comprehensive evaluation of the Aprokuma discovery.
- **Deep Water Tano Cape Three Points Block** Following the approval of the Plan of Development (PoD) in June 2023, Pecan Energies has been engaging various stakeholders to optimise the development strategy. Discussions among the partners are ongoing, with the objective of reaching a Final Investment Decision (FID) to advance the project into full-scale execution.
- **Springfield's West Cape Three Point Block 2** The litigation concerning the government's unitisation directive for the block was concluded in 2024, with the international arbitral tribunal ruling against the directive. Following the decision, Springfield E&P completed its appraisal campaign for the Afina-1X discovery in November 2024 and subsequently reported the discovery as commercially viable. The Ministry of Energy and the Petroleum Commission are yet to issue a final report on the appraisal outcome.

The remaining contract areas are at different stages of exploration, and activity on these blocks in 2024 is summarised in Table (2).

**Table 4:** 2024 Activity on non-producing blocks

No	Contract Area	Contract Parties	2024 Update on Exploration Activity
1.	Deepwater Cape Three Points	Planet One (Operator), GOIL Upstream, GNPC	Following the signing of Farm-In and Joint Operating Agreements on December 6, 2023, Planet One Oil and Gas Limited took over operatorship of the block from Goil Upstream. Planet One has since begun arrangements to contribute to the cost of 3D seismic data acquired under the Multiclient Agreement with Petroleum Geo-Services (PGS).
2.	East Keta Block	OPCO (Operator), Heritage E&P, Blue Star E&P, GNPC EXPLORCO	No exploration activity was reported for the period.
3.	South West Tano Block	OPCO (Operator), Heritage E&P, Blue Star E&P, GNPC EXPLORCO	No exploration activity was reported for the period.
4.	Central Tano Block	AMNI International (Operator), GNPC	No exploration activity was reported for the period.

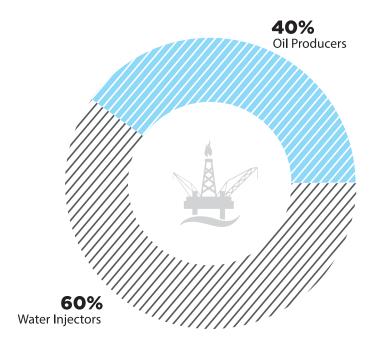
**Table 4:** 2024 Activity on non-producing blocks (cont.)

No	Contract Area	Contract Parties	2023 Update on Exploration Activity
5.	Deepwater Cape Three Points West Offshore	PetroGulf (Operator), A-Z Petroleum, GNPC EXPLORCO, GNPC	No exploration activity was reported for the period.
6.	East Cape Three Point	Medea Development Ltd. (Operator), Cola Natural Resources, GNPC	No exploration activity was reported for the period.
7.	Expanded Shallow Water Tano	Base Energy (Operator) GNPC EXPLORCO, GNPC	No exploration activity was reported for the period.
8.	Cape Three Points Block 4	Eni (Operator), Vitol and GNPC	Borr Natt jack-up rig commenced drilling operations on the Eban 2A appraisal well

### 1.8 Upstream Rig Activity in 2024

In 2024, rig activity was limited to the Jubilee Field, where five well operations were undertaken—comprising two completions and three drilling activities. About 60% of these operations targeted water injector wells, while the remaining 40% focused on oil producers (Figure 1). All the rig work was executed using the Noble Venturer drillship. No rig activity was recorded on the Sankofa Gye Nyame (SGN) or Tweneboa, Enyenra and Ntomme (TEN) fields during the period. The Borr Natt jack-up rig however commenced drilling operations on the Eban 2A appraisal well in Cape Three Point Block 4 area.

Figure 2: 2024 Rig Activity



Data sourced from 2024 PIAC Annual Report

### 1.9 Production Activities

### 1.9.1 Oil production in 2024

Total oil production in 2024 from Ghana's three producing fields— Jubilee, TEN, and Sankofa Gye Nyame (SGN)— stood at 48.24 million barrels (MMbbl), representing a 5.7 percent shortfall relative to the revised government Benchmark Oil Output of 51.15 MMbbl, and a marginal 0.02% decline from the 48.25 MMbbl produced in 2023. The Jubilee Field accounted for approximately 66% of total output, with TEN and SGN contributing 14 percent and 20 percent, respectively. At the field level, Jubilee produced 31.85 MMbbl, marking a 4.6 percent increase over the 30.44 MMbbl in 2023. TEN's output rose by 0.96 percent to 6.78 MMbbl, while SGN recorded a 13.4 percent decline from its 2023 production (*Figure 3*).

35.00 31.85 30.52 30.44 30.00 25.00 20.00 15.00 12.62 11.09 9.61 10.00 8.61 6.78 6.72 5.00 0.00 **SGN Jubilee TEN** 2023 **2022** 2024

Figure 3: Total Oil Production 2022-2024

Data Compiled from PIAC Reports (2022-2024)

The 48.24 million barrels (MMbbl) of oil produced in 2024 brings Ghana's cumulative oil production since 2010 to approximately 656.68 MMbbl. However, the 2024 figure reflects a continued decline in annual output, extending the downward trend observed since the peak production of 71.44 MMbbl in 2019 (Figure 4). The 2024 output represents a decrease of about 23.21 MMbbl compared to the 2019 peak.

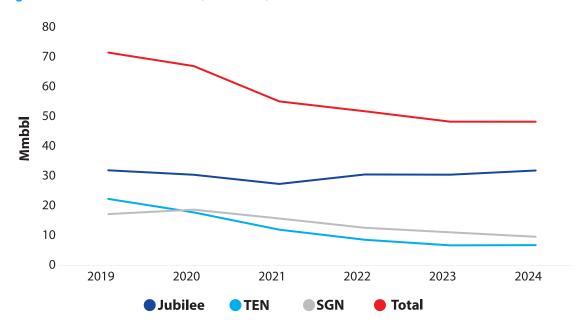


Figure 4: Trend of Oil Production (2019-2024)

Data Compiled from PIAC Reports (2019-2024)

The decline in Ghana's oil production in 2024 can be attributed to a combination of operational factors across the major producing fields. On the SGN Field, output dropped by 13.4 percent—from 11.09 million barrels in 2023 to 9.61 million barrels in 2024, primarily due to a planned six-day turnaround activity in September 2024 to facilitate maintenance on the JAK FPSO. Similarly, production fluctuations on the Jubilee Field contributed to the decline in overall production, with the highest output recorded in March and the lowest in November. The dip in November was largely due to the dual riser flow trial conducted between risers 10 and 11. On the TEN Field, average daily production stood at 18,536.72 barrels, with March also marking the highest monthly output and November the lowest, the latter affected by issues with the Gas Turbine Generator B (GTG-B), which forms a critical part of the FPSO's power generation system.

In addition to the technical constraints, the persistent decline in Ghana's oil production also reflects broader structural challenges, particularly diminishing investor confidence that has built up over years of regulatory uncertainty and unresolved disputes. A significant episode contributing to this trend was the arbitration between the Government of Ghana and Eni over the 2020 unitisation directive, which sought to combine Eni's Sankofa Field with Springfield E&P's Afina discovery. Eni challenged the directive, arguing that the geological and commercial rationale for unitisation was not adequately substantiated.

This legal standoff, which persisted for several years, introduced considerable uncertainty into the investment environment. It became emblematic of regulatory overreach in the eyes of many investors, reinforcing perceptions of risk and deterring further capital commitments in Ghana's upstream sector. The arbitration process concluded in 2024 with a decision that upheld Eni's position. The ruling effectively supported the withdrawal of the unitization directive, restoring some level of clarity and legal certainty for investors.

Moreover, despite multiple discoveries and ongoing appraisal programs, several promising blocks such as Deepwater Tano/Cape Three Points and Cape Three Points Block 4 operated by Eni have yet to progress to development.

### 1.9.2 Gas production in 2024

Total gas production from Ghana's three producing fields amounted to 280.51 billion cubic feet (Bcf) in 2024, representing a 9.9 percent increase over the 255.17 Bcf produced in 2023. SGN contributed approximately 48.8 percent of the total gas output, while Jubilee and TEN accounted for 30.4 percent and 20.8 percent, respectively. At the field level, SGN's production rose by 7.6 percent compared to its 2023 output, while Jubilee and TEN recorded increases of 9.6 percent and 16.4 percent, respectively.

140 136.82 129.39 127.20 120 100 85.39 80 77.90 68.43 58.3 60 55.68 50.07 40 20 0 Jubilee **TEN SGN** 2022 2023 2024

Figure 5: Total Gas Production 2022-2024

Data Compiled from PIAC Reports (2021-2024)

In 2024, a total of 280.51 Bcf of natural gas was produced. Of this volume, approximately 115.4 Bcf was exported for power generation and industrial use, while around 123.75 Bcf was reinjected to support reservoir pressure. Additionally, about 28.5 Bcf was flared, and 11.69 Bcf was consumed as fuel for production operations across the three FPSOs, as illustrated in Figure 6. The field operators are planning to implement flare reduction measures in 2025 in compliance with government's no routine flaring policy and their corporate emissions control targets.

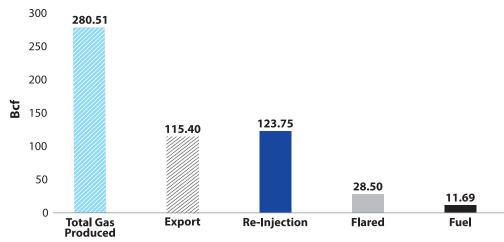


Figure 6: Gas Utilization in 2024

Data compiled from PIAC Annual Reports (2024)

A comparison of gas exports and reinjection reveals that the volume of gas reinjected annually has consistently exceeded that of gas exported. For example, in 2024, 123.75 Bcf of gas was reinjected, surpassing the 115.4 Bcf exported for power generation and other industrial uses (Figure 7).

140 123.75 122.99 116.25 120 108.33 109.62 115.4 98.90 100 96.46 88.53 80 60 54.17 40 20 0 2020 2021 Re-injection Gas Exports

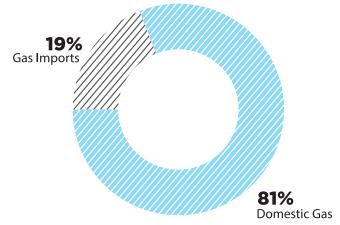
Figure 7: Gas Exports vs Reinjection (2019-2024)

Data compiled from PIAC Annual Reports (2019-2024)

### 1.9.3 Gas for Power Generation in 2024

Natural gas has become a vital component of Ghana's power generation mix. About 70 percent of the country's installed power generation capacity is made up of thermal plants that rely on natural gas as a primary fuel. In the year under review, the Jubilee and TEN Fields exported 33.61 Bcf of raw gas to the Ghana National Gas Company Limited (GNGCL) for processing and onward distribution to power plants. In contrast, the SGN Field exported 81.79 Bcf of gas to the Onshore Receiving Facility (ORF). In 2024, domestic gas exports accounted for 81 percent of gas consumed in the power sector, up from 79 percent in 2023, while imports from Nigeria supplied the remaining 19 percent.

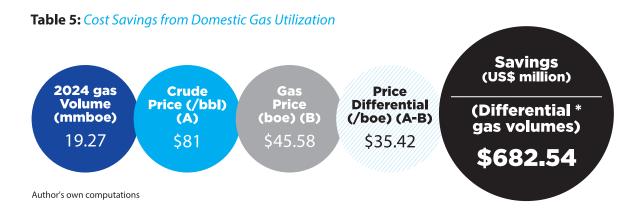
Figure 8: Sources of Gas Supply in 2024



Data sourced from 2025 National Energy Statistics

### 1.9.4 Economic Benefits of Gas for 2024

The increasing use of domestic natural gas in Ghana has resulted in significant cost savings while assuring energy security. In 2024, approximately 115.4 Bcf of gas was supplied to the domestic market, equivalent to 19.27 million barrels of oil equivalent (boe). This reflects the volume of oil that would have been required for power generation without the switch to natural gas. By substituting liquid fuels with gas, Ghana saved an estimated \$682.54 million in 2024 (Table 3). According to the U.S. Energy Information Administration (EIA), the average oil price for the year was \$81 per barrel. In comparison, Ghana's weighted average cost of gas (WACOG) was \$7.8405 per MMBtu, equivalent to about \$45.58 per boe, yielding a price differential of \$35.42 per boe. While T this lower gas cost, in oil-equivalent terms, translates into direct economic and energy security benefits, particularly for electricity consumers, the domestic gas suppliers face payment security challenges which will disincentivize supply growth enhancement if it is not addressed promptly.



### 1.10 Key Upstream Developments in 2024

The upstream petroleum industry witnessed a number of developments in 2024. The Petroleum Commission generated interest in exploration with 3D seismic data acquisition and proposed licensing reforms. The international court of arbitration came out with a ruling on the Afina and Sankofa field unitization. Local content efforts progressed through bilateral cooperation, new partnership guidelines, and minimum local content requirements across key service areas. These developments will continue to shape the upstream industry into the future. Some key events are catalogued below.

### 1.10.1 Jubilee South East Project

The completion of the Jubilee South East Project is expected to increase production by 30,000 barrels per day over time. The additional volume is attributed to the Mahogany area of the Greater Jubilee Field following successful drilling and installation of subsea production infrastructure.

### 1.10.2 Exploration and Licensing

The Petroleum Commission signed agreements with international firms to acquire advanced 3D seismic data, enhancing the understanding of Ghana's offshore basins and

attracting potential investors. Additionally, the government has commenced a discussion proposing changes to the fiscal terms and licensing schemes to stimulate investment in the upstream sector.

### 1.10.3 Unitization of the Afina and Sankofa Fields

In July 2024, a tribunal constituted under the Arbitration Rules of the Stockholm Chamber of Commerce (SCC) delivered its final award in proceedings initiated in 2021 by Eni Ghana E&P Ltd and Vitol Upstream Ghana Limited. The case concerned the Government of Ghana's 2020 Unitization Directives involving the Sankofa Field and Afina Discovery. The tribunal found that the unitization directive breached the provisions of Ghana's upstream petroleum laws and the terms of the OCTP Petroleum Agreement.

### 1.10.4 Development of Local Content Guidelines

During the review period, the Petroleum Commission conducted consultations on draft Guidelines for 'Channel Partnership' and 'Strategic Alliance' to clarify tax implications for foreign companies, as alternatives to joint ventures under Local Content Regulations. The Guidelines are yet to be published. Additionally, the Commission began developing Research and Development and Technology Transfer policies, collaborating with the National Development Planning Commission through a joint Working Group, with the draft Technology Transfer Policy also targeted for 2025.

### 1.10.5 Voltaian Basin Update

During the reporting period, the phase four (4) of the 2D seismic acquisition program (infill campaign) by the PC which commenced in March 2023 ended in April 2024. The Phase-4 acquisition was meant to increase the density of the current 2D seismic lines, reduce the data gaps and geological risk and improve the geological understanding of the basin. A total of One Thousand Eight Hundred- and Thirty-Two-Line Kilometer (1832 km) of 2D seismic data has so far been acquired.



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**MODEC**, Inc., headquartered in Japan, is an owner, operator and EPCI general contractor of floating production systems for the offshore Oil and Gas industry including Floating Production Storage and Offloading (FPSO) units, Floating Storage and Offloading (FSO) units, Floating Liquefied Natural Gas (FLNG), Tension Leg Platforms (TLP), Semi-Submersibles, Mooring Systems and new technologies which will meet the challenges of gas production floaters. These units can handle oil & gas production in ultra-deep water and in harsh environments.

**MODEC** has been a leading provider of solutions to the Floating Offshore Oil & Gas market for more than 50 years already. MODEC has an exceptionally strong track record to prove its excellence.

In West Africa, MODEC currently operates FPSOs in Ghana and Côte d'Ivoire and is in pre-operations phase in Senegal. It has also supplied another seven (7) floating production facilities such as FPSO, FSO and Tension Leg Platform (TLP) that have been installed in Angola, Cameroon, Equatorial Guinea, Gabon and Nigeria.

**MODEC** operates in Ghana as **MODEC Production Services Ghana JV Ltd. (MPSG).** MPSG is a joint venture company with JILMEC, an indigenous Ghanaian company with expertise in engineering and oilfield logistics services.

# **About Yinson Production**

company headquartered in Malaysia. The Group has businesses in offshore production, renewable energy, green technologies and offshore marine, and has presences in Asia, Yinson Production ("YP") is the offshore production business unit of Yinson Holdings Berhad ("Yinson", or "the Group"), a global energy infrastructure and technology Europe, the Americas and Africa.

Yinson was established in 1983 as a transport agency in Johor Bahru. After successfully entering the FPSO market through a joint venture to build two offshore production assets in Vietnam, Yinson transformed to become a full-scale execution and service FPSO provider in 2014 through the acquisition of Fred Olsen Production ASA and subsequent divestment of its non-oil & gas business segments.

Today, YP is one of the largest independent floating, production, storage and offloading ("FPSO") leasing companies globally, with an orderbook of over USD22 billion until 2048. YP's position as a top tier FPSO contractor is driven by its excellent project management team, industry-leading safety and uptime performance and leadership position in sustainable FPSO design.

YPs Zero Emission FPSO Concept is paving the way for the decarbonisation of the FPSO industry and alsons with the Group's Climate Goals to be carbon neutral by 2030 and net zero by 2050.

## Yinson Production

leading the way with responsible solutions To be the preferred FPSO partner,

## Yinson Production

production assets for the offshore oil and gas industry towards improving global access to affordable energy To design, construct, and operate industry-leading

### Core Values

Reliable













# XOSNIX

## The Zero Emissions FPSO Concept

Developing and implementing the Zero Emissions FPSO Concept is a key way that Yinson aims to lower our offshore production fleet's emissions to net zero. Both existing and future technologies have been included in the design. The concept comprises of five main building blocks, as depicted in the graphic below.



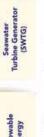
Carbon













cycle power generation significantly improves the efficiency of electricity production Usage of combined

Utilise technologies such as hydrocarbon blanketing, dosed flaring and vapour recevery units to eliminate routine

Remove carbon primarily via CCS, with remaining carbon removed via DAC

Up to 50% of powe

Up to 100% GHG reductions of power production

Up to 25% GHG reduction

Up to 10% GHG reduction flaring and venting

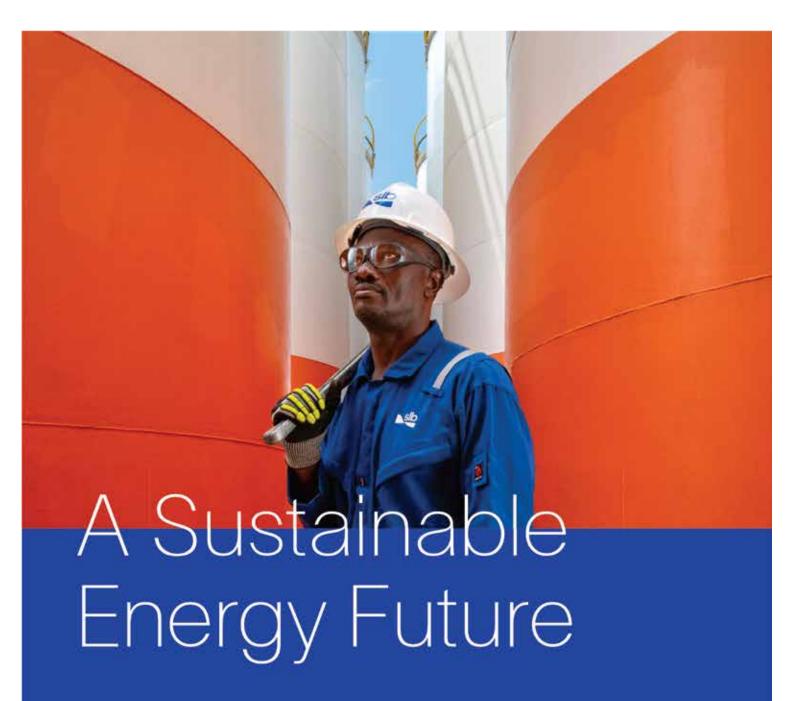
Up to 100% GHG reductions of power production

# Exploration of Hydrogen and Ammonia for FPSOs

hydrogen economy. The concept involves developing and operating offshore assets that use renewable energy or natural gas to produce environmentally-friendly carbon-free products such as green and blue ammonia. Yinson Production is exploring technologies to support the energy transition, including those that contribute to the

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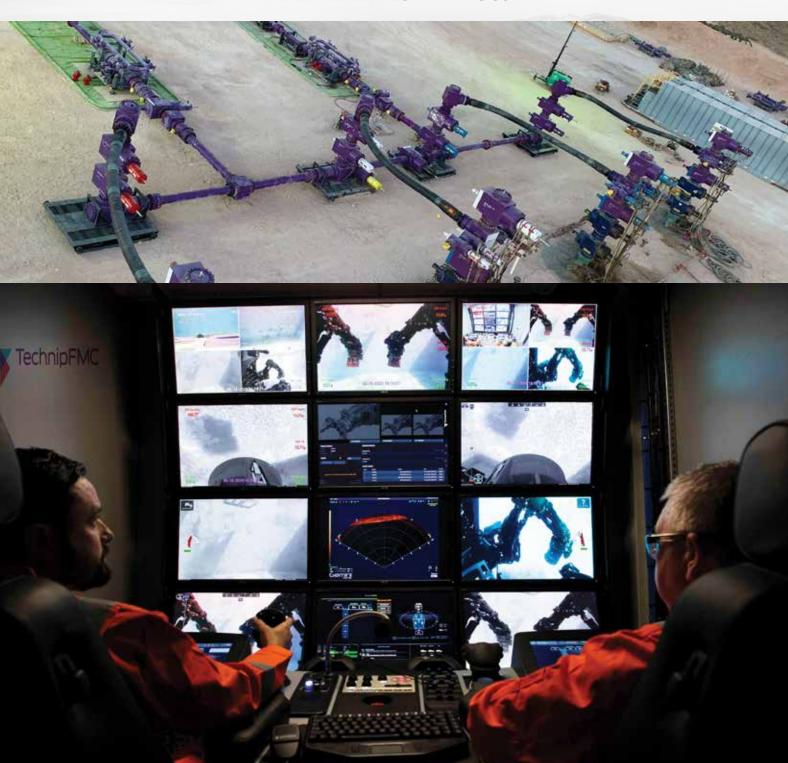
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#### 2.1 Oil and Gas Investments in 2024

The total cumulative investment in the three producing fields in 2024 amounted to approximately \$1.28 billion, representing a 21 percent decrease from the \$1.62 billion invested in 2023. This total includes around \$544.38 million in the Jubilee field, \$352.29 million in the TEN field, and \$382.87 million in the SGN field, as detailed in Table 6.

"The total cumulative investment in the three producing fields in 2024 was approximately \$1.28 billion."

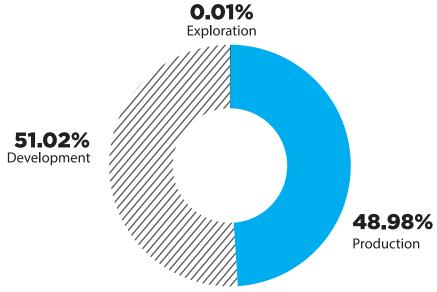
**Table 6:** Oil and gas investments in 2023

Field	<b>Total Investments</b> (US\$ Million)
Jubilee	544.378
TEN	352.289
SGN	382.863
TOTAL	1,279.53

Data compiled from PIAC Annual Report (2024)

The investments represent costs of production, development and exploration incurred by the field operators under the period in review. Out of the total \$1.28 billion, investments in production were the largest, representing 51.02 percent across all producing fields. Investments in development and exploration represented 48.98 percent and 0.01 percent respectively across all three producing fields as shown in Figure 9 below demonstrates the need for increased investment in exploration to enhance reserves replacement and the long-term sustainability of the industry and energy security.

**Figure 9:** Distribution of Investment Costs Across Producing Fields (2024)



Data compiled from PIAC Annual Reports (2024)

#### 2.2 Macroeconomic performance of the oil and gas industry in 2024

The oil and gas industry continues to contribute significantly to the economy of Ghana-influencing the macroeconomic indicators of the country, including GDP and balance of payments. In 2024, the industry contributed about GH¢10.37 billion (about 5.49 percent) to Ghana's GDP and 16.4 percent of the overall industrial sector's contribution to GDP. In terms of growth, the industry grew by 1.1 percent in 2024, signifying a minor recovery from the consistent decline experienced since 2019. However, the contribution of oil and gas to the national economy declined between 2023 and 2024 due to higher growth in the other sectors of the economy.

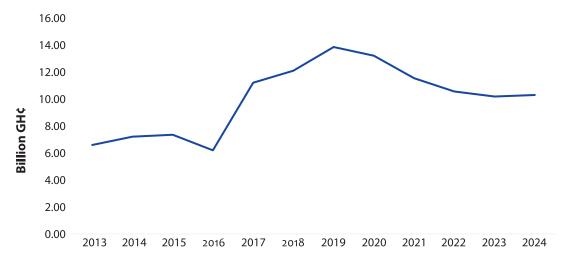
**Table 7:** Macroeconomic Performance of the Oil and Gas Industry, 2024

Macroeconomic Indicator	2023	2024
Sectoral Growth Rate (%) (at constant prices)	-3.5	1.1
Share in Value of Industrial Sector (%) (at current prices)	17.38	16.4
Contribution to Gross Domestic Product (%) (at basic prices)	5.74	5.49

Data sourced from the **Ghana Statistical Service** 

The industry's contribution to GDP peaked at GHS 13.93 billion in 2019 but has declined steadily each year since (see Figure 10) in a similar direction as the decline in oil production. Reversing this downward trend will require increased upstream investment in exploration and new development projects to boost reserves and production.

Figure 10: Trend of oil and gas industry contribution to GDP (2013 – 2024)



Data sourced from the Ghana Statistical Service

In 2024, the oil and gas industry maintained its 8th rank as in 2023 among the leading contributors to GDP, trailing behind crops, manufacturing, construction, and several others as shown in Table 8. Collectively, these sectors accounted for approximately 68 percent of the country's GDP in 2024.

**Table 8:** Contribution of Top Ranked Economic Activities to GDP in 2024

Rank	Economic Activity	Contribution (GH¢ Billion)	Share of GDP (%)
1	Crops	31.97	16.94%
2	Manufacturing	21.50	11.39%
3	Wholesale and Retail; Repair of Vehicles; Household Goods	17.76	9.41%
4	Mining & Quarrying	15.95	8.45%
5	Information and Communication	13.84	7.34%
6	Construction	12.39	6.57%
7	Transport and Storage	11.35	6.02%
8	Oil and Gas	10.37	5.49%

Data sourced from the **Ghana Statistical Service** 

Moreover, crude oil maintains the second spot on the high grossing merchandise exports in the year, contributing \$3.82 billion to total merchandize exports (representing about 18.38 percent) in 2024<sup>2</sup>. This performance marks a 21.52 percent increase over the \$3.15 billion crude oil exports recorded in 2023 as shown in Figure 11.

<sup>&</sup>lt;sup>2</sup> Merchandise exports were reported in GH¢ by the Ghana Statistical Service. The 2024 Average Interbank USD/GHC exchange rate of 14.18 was used for conversion.

14.00 12.00 11.50 10.00 US\$ Billion 8.00 5.95 6.00 3.82 4.00 3.46 3.15 2.55 2.02 2.00 1.47 0.00 Gold **Crude Oil Cocoa Beans Other Exports** and Products 2023 2024

Figure 11: Total Merchandise Exports (2023-2024)

Data sourced from the **Ghana Statistical Service** 

#### 2.3 Fiscal Performance Of The Oil And Gas Industry

In 2024, total petroleum revenues accruing to the state reached approximately \$1.35 billion, marking a 27.5 percent increase from the \$1.06 billion recorded in 2023. This brings Ghana's cumulative petroleum receipts since 2011 to about \$11.16 billion. The revenue growth was largely driven by higher collections from Corporate Income Tax (CIT) and Carried and Participating Interest (CAPI).

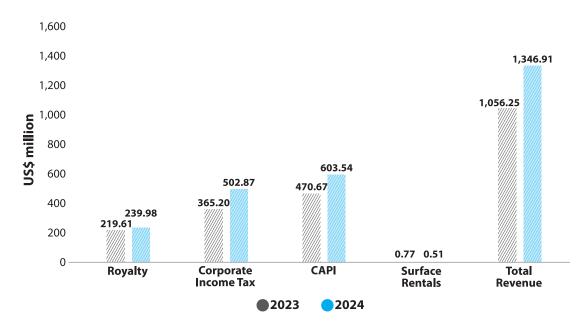


Figure 12: Contribution of Revenue Sources to Total Petroleum Revenue 2023-2024

Data compiled from PIAC Annual Reports (2023-2024)

In terms of the share of contributions from \$1.35 billion revenue in 2024, Carried and Participating Interests (CAPI) contributed the largest share, i.e., 44.81 percent, while Corporate Income Tax and Royalties accounted for 37.34 and 17.82 percent of total revenue respectively as shown in Figure 13.

44.81%

CAPI

O.04%
Surface Rental

17.82%
Royalty

37.34%

Corporate Income Tax

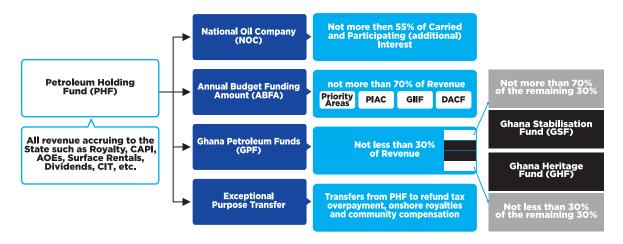
Figure 13: Share of Contributions from Revenue Sources 2024

Data compiled from PIAC Annual Reports (2024)

#### 2.4 Revenue Distribution

The Petroleum Revenue Management Act (PRMA), 2011 (Act 815), regulates the use of revenues from Ghana's upstream petroleum sector. It established the Petroleum Holding Fund (PHF) to receive all petroleum revenues before distribution. After allocating funds to GNPC for equity financing and operations, the remaining Benchmark Revenue is split between the Annual Budget Funding Amount (ABFA) and the Ghana Petroleum Fund (GPF). The ABFA supports current government spending, while the GPF, divided into the Ghana Heritage Fund (GHF) and the Ghana Stabilisation Fund (GSF), ensures long-term savings and budget stability respectively.

Figure 14: Petroleum Revenue Distribution

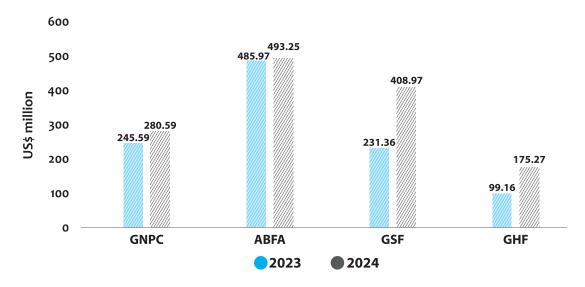


Source: 2023 PIAC Annual Report

In 2024, total petroleum receipts available for distribution from the Petroleum Holding Fund (PHF) amounted to approximately \$1.36 billion, an increase of 27.81 percent compared to 2023. This figure also exceeded the Ministry of Finance's revised petroleum revenue projection for the year by about 26.62 percent.

Based on the prescriptions of the PRMA, GNPC received \$280.59 million for its equity financing and operating costs in 2024. This represents about 14.25 percent increase over its receipts in 2023. The ABFA also received \$493.25 million, about 1.5 percent increase over 2023 receipts while the Ghana Stabilization Fund (GSF) and the Ghana Heritage Fund (GHF) received \$408.97 million and \$175.27 million, respectively.

Figure 15: Petroleum revenue distribution 2024



Data compiled from PIAC Annual Reports (2023-2024)

#### 2.5 The Annual Budget Funding Amount (ABFA) and Public Investments

The Annual Budget Funding Amount (ABFA) is the portion of petroleum revenue used to support Ghana's national budget. At least 70 percent must go to public investment, guided by a medium-term framework aligned with long-term development plans. In the absence of such plans, the Finance Minister selects up to four priority sectors every three years. The ABFA also funds PIAC, the Ghana Infrastructure Investment Fund (GIIF), and, following a 2019 court ruling, contributes to the District Assemblies Common Fund (DACF).

The current set of priority areas for ABFA distribution as approved by Parliament for the 2023-2025 period are:

- i. Agriculture including Fisheries
- ii. Physical Infrastructure and Service Delivery in Education and Health
- iii. Road, Rail and Other Critical Infrastructure Development
- iv. Industrialization

The total allocation to the ABFA in 2024 amounted to \$493.25 million. Additionally, unutilized funds of approximately \$41.79 million were carried over from 2023, bringing the total ABFA available for distribution in 2024 to \$535.04 million.<sup>3</sup>

In terms of expenditure on the priority sectors, Roads, Rail and Other Critical Infrastructure received the highest share of ABFA (about 60.57 percent) in 2024 with a receipt of about \$324.73 million. The amount was used for the construction of notable road infrastructure such as the Tema Motorway Expansion Project, the Tema-Mpakadan Railway Project and other municipal roads and rails.

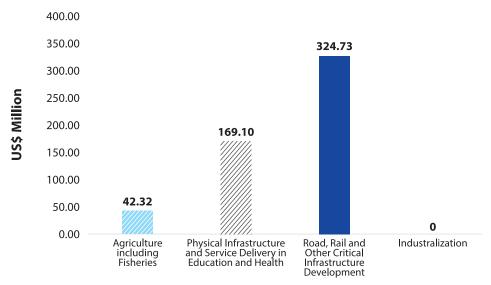
The agriculture and fisheries sector received \$42.32 million, representing about 7.89 percent of the total ABFA disbursements. The funds were used in developing irrigation infrastructure at several communities including Tamne, Afram Plains, Ekye Amanfrom and Atonsu. Some funds were also used in land development for potential valleys for rice production in the Ashanti and Eastern Regions.

Physical infrastructure and service delivery in health and education received about \$169.1 million, about 31.54 percent of ABFA disbursed. This amount was designated mainly for the Free Senior High School Program for the year.

The industrialization priority area received no allocation for the year under review (Figure 16).

<sup>&</sup>lt;sup>3</sup> ABFA disbursements are reported in Ghana cedis. This report utilizes the average 2024 interbank FX rate of GHS14.1786/\$ for ease of reporting and uniformity.

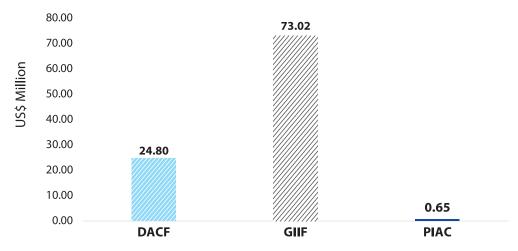
Figure 16: Petroleum Revenue Distribution in 2024



Data compiled from PIAC Annual Reports (2024)

Other disbursements from the ABFA were made to PIAC and various public institutions under the Roads, Rail, and Other Critical Infrastructure Development priority area. These included approximately \$24.8 million to the DACF, about \$73.02 million to the Ghana Infrastructure Investment Fund (GIIF), and roughly \$0.65 million to PIAC.

Figure 17: ABFA distribution beyond the priority areas



Data compiled from PIAC Annual Reports (2024)

#### **2.6** The Ghana Petroleum Funds

The Ghana Petroleum Fund (GPF) consists of two parts: the Ghana Stabilization Fund (GSF), which helps smooth government spending during petroleum revenue shortfalls, and the Ghana Heritage Fund (GHF), an endowment for future use after oil and gas resources are depleted, ensuring intergenerational equity.

The PRMA requires that at least 30 percent of benchmark petroleum revenue each year be allocated to the GPF, with a minimum of 30 percent of that amount directed to the GHF and the remainder to the GSF.

In 2024, the Ghana Petroleum Fund (GPF) received \$584.25 million, representing a 76.77 percent increase from the \$330.52 million received in 2023. These funds were allocated to the Ghana Stabilization Fund (GSF) and the Ghana Heritage Fund (GHF) as mandated by the PRMA, with the GSF receiving \$408.98 million and the GHF \$175.27 million. Since its inception in 2011, the Ghana Petroleum Funds have accumulated a total of \$3.7 billion, with \$2.59 billion allocated to the GSF and approximately \$1.1 billion to the GHF.

The Ghana Stabilization Fund (GSF) invests in short-term dollar-denominated debt instruments for liquidity, while the Ghana Heritage Fund (GHF) focuses on longer-term investments. In 2024, the Ghana Petroleum Fund earned \$45.92 million in returns, with \$8.70 million from the GSF and \$37.22 million from the GHF.

As shown in Table 7, the GPFs have accumulated a net return on investment of \$194.89 million since 2011, out of which the GHF realized \$156.30 million while the GSF realized \$38.59 million.

**Table 9:** Net Accumulated Reserve of the Ghana Petroleum Funds in 2022

Fund Name	Allocations since inception (US\$)	Realised Income (Nov. 2011 - Dec. 2024) (US\$)	Total since Inception (US\$)	Withdrawals (US\$)	Closing Value (US\$)
GHF	1,102,562,868.05	156,297,155.07	1,258,860,023.12	-	1,258,860,023.12
GSF	2,593,852,041.04	38,594,396.89	2,632,446,437.93	-2,435,531,254.96	196,915,182.97
Total	3,696,414,909.09	194,891,551.96	3,891,306,461.05	-2,435,531,254.96	1,455,775,206.09

Data Sourced from Bank of Ghana Semi-Annual Reports on the Ghana Petroleum Funds (2023)

The PRMA permits the finance minister to cap the Ghana Stabilisation Fund (GSF) and transfer any excess above this cap to either the Contingency Fund for emergency spending or the Sinking Fund for debt servicing, subject to parliamentary approval. Since 2011, approximately \$2.44 billion has been withdrawn from the GSF, primarily for debt servicing.

#### **2.7** Local Content and Local Participation

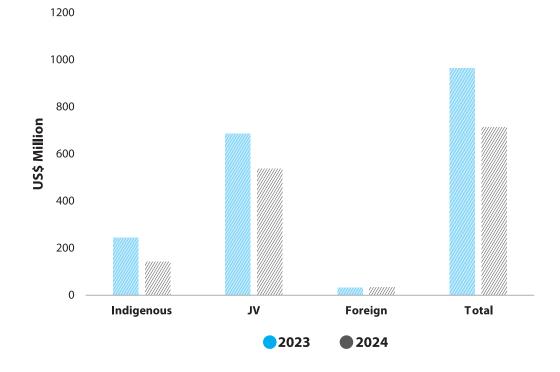
The upstream E&P companies have been committed to promoting local content and local participation as prescribed by the Petroleum (Local Content and Local Participation) Regulations, 2013 (L.I. 2204). According to the latest data collected from the PC as of December 2024, the total value of contracts awarded in the industry during the year amounted to about \$712.92 million, a 38.61 percent decrease from the \$1.16 billion worth of contracts in 2023. The shares of the total value of contracts is shown in Table 10 and Fig 18.

 Table 10: Value of Upstream Services in 2023 and 2024

Type of Company	2023 (US\$ Million)	2024 (US\$ Million)
Indigenous	245.24	141.38
JVs	686.22	537.08
Foreign	33.24	34.46
Total	964.70	712.92

Data Sourced from PIAC Annual Report (2024)

Figure 18: Comparing Upstream Value of Services in 2023 and 2024



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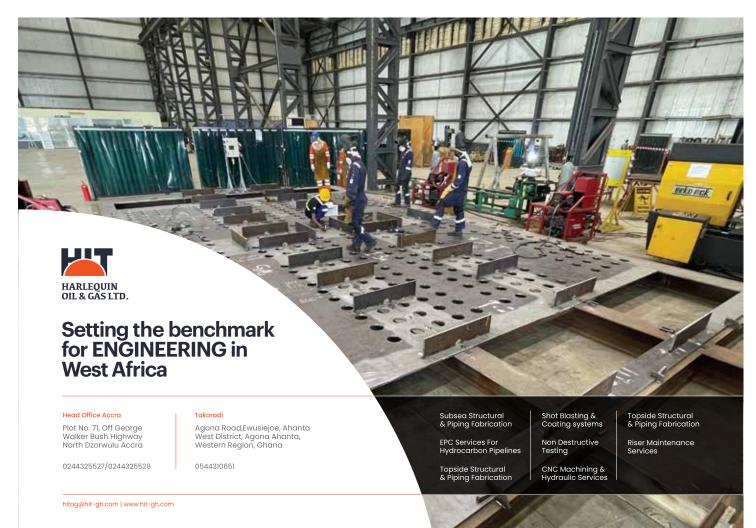
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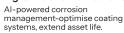




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## THREE GLOBAL OUTLOOK FOR OIL AND GAS IN 2024

#### 3.1 The Oil and Gas Industry in 2024

In 2024, the global energy landscape was shaped by geopolitical tensions, rising demand in emerging economies, and the accelerating shift to clean energy. Political uncertainty and supply disruptions influenced markets, while developing regions increasingly drove energy consumption and investment. These trends highlight the complex and evolving nature of the global oil and gas industry.

3.1.1. Geopolitics

In 2024, the global oil industry continued to navigate complex geopolitical and market dynamics that shaped supply and demand patterns.

"After the COVID-19 pandemic, global oil demand has rebounded due to an increase in economic activity.
However, in 2024, oil demand growth slowed to 0.8% after reaching 1.9% in 2023, indicating a slower growth rate than in the decade before the pandemic."

The ongoing conflict in Ukraine remained a major disruptor, affecting global oil supply chains and contributing to price volatility. As Russia faced international sanctions, its oil exports were increasingly redirected toward Asia and other receptive markets such as Africa and Latin America. Despite the sanctions, Russia's overall oil production capacity showed only a marginal decline. This resilience was largely attributed to the ramping up of the massive Vostok oil project, which helped offset losses from mature oil fields.

The Middle Eastern dynamics also played a key role in the global oil and gas market in 2024. The UAE and Iraq focused on increasing crude oil capacity, while Saudi Arabia geared up for a substantial boost in the production of natural gas liquids (NGLs) and condensates. Meanwhile, African and Asian OPEC+ members posted declines in capacity due to underinvestment and operational challenges.

Oil prices in 2024 remained mostly comparable to 2023 despite the sanctions on Russia's oil and the new focus of Saudi Arabia on NGLs and condensates. Brent Crude prices averaged \$82 in 2023 and \$81 dollars in 2024 indicating that price volatility was minimal in 2024 relative to 2023 (Figure 17).

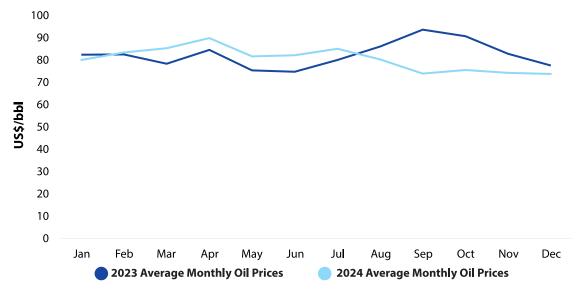


Figure 19: Average Brent Crude Oil Prices from January to December 2022

Data sourced from EIA

#### 3.1.2. Shifting Demand Patterns

Asia solidified its role as the dominant center of oil demand growth in 2024, attracting an increasing share of supply, especially from the Middle East. This shift was driven by robust economic activity and rising energy needs in major Asian economies. The redirection of Russian oil supplies eastward also contributed to this regional rebalancing, while emerging markets in Africa and Latin America began to increase their import volumes to meet domestic demand.

#### 3.1.3. Climate change and energy transition

In recent years, clean energy transitions have gained significant momentum, driven by evolving government policies, industrial strategies, and economic competitiveness. However, the path forward in the near term is marked by considerable uncertainty, especially with half of global energy demand jurisdictions holding elections in 2024. These elections are influenced by public concern over high energy prices and the growing impacts of climate change, such as floods and heatwaves. While policy direction remains influential, market dynamics, cost advantages, and competition for clean energy leadership are also critical forces shaping the global energy transition.

In 2024, renewables accounted for the largest share of the increase in global energy supply, accounting for the largest share of growth at 38%. This surge reflects increasing global investment in solar, wind, and other renewable technologies, driven by declining costs, supportive policy frameworks, and rising demand for cleaner alternatives. Natural gas followed with a 28% share, benefiting from its role as a transitional fuel in many economies. Coal and oil contributed 15% and 11%, respectively, indicating a gradual shift away from traditional fossil fuels. Nuclear energy made up 8% of the growth, supported by efforts in some countries to maintain low-carbon baseload power amid increasing electricity demand.

Additionally, electric vehicles (EVs) continued to make significant inroads in global markets in 2024. Cost-competitive models, especially from Chinese manufacturers, expanded EV adoption in both developed and emerging economies. EVs now account for approximately 20% of all new car sales worldwide—a notable increase from previous years. This momentum is expected to continue, with projections suggesting EVs could reach nearly 50% of new vehicle sales by 2030. This rapid uptake would displace around 6 million barrels per day of oil demand, transforming the outlook for the transport sector and significantly altering future oil market dynamics.

#### 3.2 Global Oil Production And Demand In 2024

In 2024, global petroleum supply and demand remained tightly balanced, with production and consumption averaging nearly the same levels. On the supply side, OPEC-13 countries produced an average of 32.38 million barrels per day, while non-OPEC countries contributed a larger share with 70.37 million barrels per day, bringing total global production to 102.75 million barrels per day. A significant share of non-OPEC production came from the United States, which alone produced approximately 13.21 million barrels per day of crude oil, reinforcing its position as a leading global oil producer.

After the COVID-19 pandemic, global oil demand has recovered due to rebound in economic activities. However, in 2024, demand for oil slowed to 0.8% after recording 1.9% growth in 2023, representing a slower growth than the decade before the Pandemic. Global petroleum demand averaged 102.74 million barrels per day in 2024. OECD countries accounted for 45.67 million barrels per day, while non-OECD countries led demand with 57.07 million barrels per day. This high non-OECD demand reflected growing energy needs in emerging economies in Asia such as China and India.

104
103.5
103
102.5
101
101.5
100
99.5
100
99.5
99

Jan-24 Feb-24 Mar-24 Apr-24 May-24 Jun-24 Jul-24 Aug-24 Sep-24 Oct-24 Nov-24 Dec-24

World Petroleum Production World Petroleum Consumption

Figure 20: Average Global and Monthly Rig Counts and Oil

Data sourced from **EIA** 

#### 3.3 Global Rig Activity 2024

In 2024, global rig activity declined, with the average monthly rig count dropping to 1,735 from 1,814 in 2023. In contrast, Africa experienced a modest increase in rig activity, with the average rig count rising to 107 from 102 the previous year. This uptick in Africa indicates a slight boost in exploration and production investments, whereas the global decline suggests a slowdown in such activities elsewhere.

140 1850 120 1800 100 1750 80 1700 60 1650 40 1600 20 0 1550 Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec 2023 Africa Rig Count 2024 Africa Rig Count Global Rig Count

Figure 21: Average Global and Africa Monthly Rig Counts 2023 - 2024

Data sourced from **Baker Hughes** 



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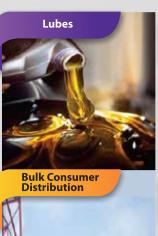
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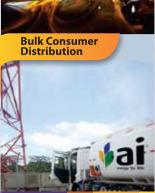
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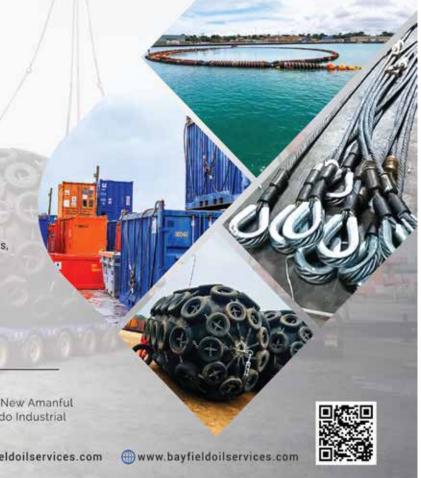
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## FOUR CONCLUSIONS AND RECOMMENDATIONS

#### 4.1 Conclusions

In 2024, Ghana maintained relatively stable oil production levels compared to 2023, while natural gas output experienced a notable increase. This indicates a stabilization in the decline of oil production volumes observed since 2019. The recent resolution of arbitration proceedings between Eni/Vitol and Ghana is expected to restore investor confidence and support a rebound in petroleum output in the medium term. The oil and gas sector continues to play a vital role in Ghana's economy, supplying energy security and essential resources to drive economic transformation.

"In 2024, Ghana's oil production remained fairly stable compared to 2023, while natural gas output saw a notable increase."

The key highlights in the upstream industry for 2024 include the following:

- The industry's total revenue generated for the state was approximately \$1.35 billion, representing a 27.5 percent increase from the \$1.06 billion recorded in 2023, bringing the overall petroleum receipts from the industry to around \$11.16 billion since 2011.
- Crude oil holds the second position in the value of gross merchandise exports for the year, contributing \$3.82 billion to total merchandise exports (about 18.38 percent) in 2024.
- Oil production totalled 48.24 MMbbl. This represented about a 0.02 percent decline from the 48.25 MMbbl produced in 2023, indicating a slowdown in the decline in output. Nevertheless, it shows a gross decline of 23.21 MMbbl from a peak output of 71.44 MMbbl in 2019, highlighting a loss of about 23.21 MMbbl since 2019 and emphasizing the need to increase investment in exploration and new development projects to recover the loss.
- The total cumulative investment in the three producing fields in 2024 amounted to approximately \$1.28 billion, representing a 21 percent decrease from the \$1.62 billion invested in 2023. This total includes around \$544.38 million in the Jubilee field, \$352.29 million in the TEN field, and \$382.87 million in the SGN field.

- Domestic gas commercialization continues to save Ghana significant amounts of foreign exchange by substituting liquid fuels with gas for power generation and industrial use, saving the country about \$682.54 million in 2024. However, expanding domestic supply capacity to meet growing demand requires the government to provide reliable payment security guarantees.
- Total gas production from all three producing fields amounted to 280.51 Bcf, about a 9.9 percent increase from the 255.17 Bcf produced in 2023. Of the total gas produced from all fields, 115.4 Bcf was exported for power generation and industrial use, and 11.69 Bcf was utilized as fuel for production operations on the three FPSOs. Gas flaring, however, has been on the increase and should be curbed to comply with the national no routine flare policy to mitigate harmful emissions and loss of economic value.
- The total value of contracts awarded in the industry during the year was approximately \$712.92 million, a 38.61 percent decrease from the \$1.16 billion worth of contracts in 2023.
- The Ghana Petroleum Fund (GPF) received \$584.25 million, a 76.77 percent increase from the \$330.52 million it received in 2023. These funds were allocated to the Ghana Stabilization Fund (GSF) and the Ghana Heritage Fund (GHF) as mandated by the PRMA, with the GSF receiving \$408.98 million and the GHF \$175.27 million. Since its inception in 2011, the Ghana Petroleum Funds have accumulated a total of \$3.7 billion, with \$2.59 billion allocated to the GSF and around \$1.1 billion to the GHF.

#### 4.2 Recommendations

Based on the current state and challenges highlighted in this report, the following recommendations are essential for maintaining and expanding Ghana's upstream oil and gas industry, reversing production declines, and ensuring its continued significant contribution to the national economy.

1. Restore the Predictability of the Regulatory Regime to Improve Business Confidence

The recent international arbitration losses highlight a crucial need for significant improvements in Ghana's regulatory

environment. Restoring and maintaining investor confidence is essential, especially given the declining global investment in oil and gas.

- **Enhance Legal and Contractual Certainty:** Ensure that all petroleum agreements and regulatory frameworks are clear, unambiguous, and consistently enforced. Review existing contracts to identify and address potential disputes before they escalate to arbitration.
- **Uphold Contract Sanctity and Rule of Law:** Demonstrate an unwavering commitment to honoring contractual agreements and respecting international legal precedents. Prompt and fair resolution of disputes is crucial for attracting and keeping high-calibre international investors. The positive resolution of the Eni/Vitol arbitration sets an important precedent that must be consistently maintained.

"Restore the predictability of the regulatory regime to boost business confidence."

• **Enhance Regulatory Body Capacity:** Invest in strengthening the technical, legal, and commercial skills of regulatory agencies such as the Petroleum Commission (PC), Ghana Revenue Authority (GRA), and Ghana National Petroleum Corporation (GNPC). This helps them effectively oversee operations, interpret complex agreements, and work constructively with international partners to prevent recent arbitration awards.

#### 2. Promote Exploration and Expedite Investment Incentives

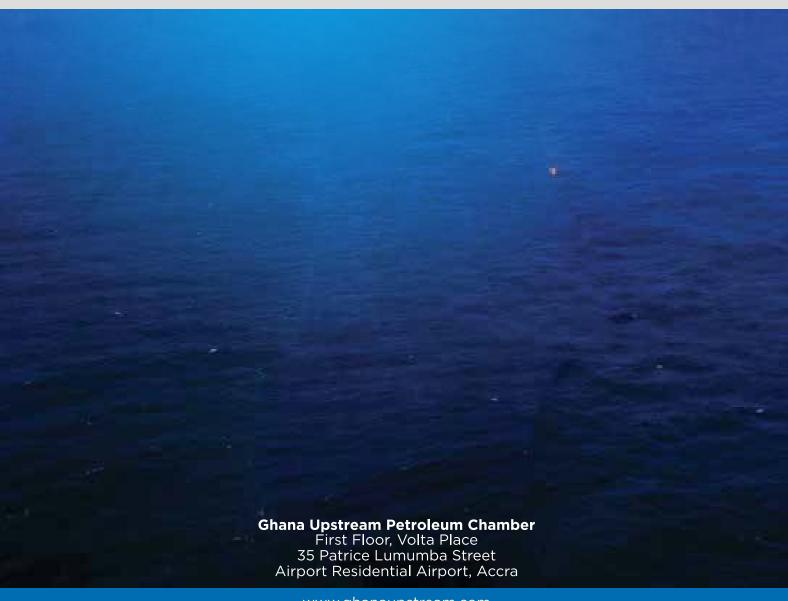
To counteract the ongoing decline in oil production observed since 2019 and attract the necessary capital for exploration and development, Ghana must quickly and actively implement attractive investment incentives and accelerate negotiations for new Petroleum Agreement licenses.

- Promote Exploration and Production: Implement targeted incentives for exploration activities, especially in frontier basins, while supporting exploration within existing Development and Production Areas (DPAs). These should include the adoption of Infrastructure Led Exploration (ILX) mechanisms to halt the decline of producing fields and reduce the unit cost of production.
- **Streamline Licensing and Approvals:** Minimize bureaucratic obstacles and speed up the process for issuing new licenses, permits, and project approvals. Delays in these steps considerably raise project costs and discourage potential investors.
- **Review and Improve Fiscal Policy:** Conduct a thorough review of the current fiscal policy to ensure it remains competitive globally, providing attractive returns for investors while protecting national interests. This may involve reassessing royalty rates, tax structures, and other relevant fiscal measures to attract new entrants and motivate existing operators to boost their investments.

#### 3. Maximize Value from Natural Gas

While gas production has increased notably, there is still a significant opportunity to commercialize natural gas further.

- **Explore Diversified Gas Markets:** Beyond power generation, explore opportunities for using gas in petrochemical industries, fertilizers, or as a cleaner fuel for transportation, thereby expanding domestic demand and increasing value.
- Accelerate Gas Commercialization Projects: Focus on prioritizing and expediting
  projects that enhance and expand gas infrastructure and processing facilities to
  support power generation. These should also include investments to eliminate gas
  transmission bottlenecks and reduce gas flaring.



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