2024 GHANA PETROLEUM INDUSTRY REPORT





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LIST OF ABBREVIATIONS AND DEFINITIONS

AfCFTA - African Continental Free Trade Area

ABB - All Buoy Berth

ABFA - Annual Budget Funding Amount

AGPP - Atuabo Gas Processing Plant

APD - Accra Plains Depot

BDC - Bulk Distribution Company

BoG - Bank of Ghana

BOST - Bulk Oil Storage and Transportation

BRV - Bulk Road Vehicle

COMPANIES ACT - The Companies Act, 2019 (Act 992)

CBOD - Ghana Chamber of Bulk Oil Distributors

CREPT - Credit Rating in Practice

DWCTP - Deepwater Cape Three Points

DWT - Deepwater Tano

ESLA - Energy Sector Levies Act

ESRP - Energy Sector Recovery Programme-

FPSO - Floating Production Storage and Offloading

FOB - Free on Board

GHF - Ghana Heritage Fund

GIPC - Ghana Investment Promotion Centre

GPS - Global Position System

GSF - Ghana Stabilisation Fund

INCOME TAX ACT - Income Tax Act, 2015 (Act 896)

IOC - International Oil Company

LPG - Liquified Petroleum Gas

MGO - Marine Gasoil

NPA - National Petroleum Authority

OCTP - Offshore Cape Three Points

OMC - Oil Marketing Company

OTC - Oil Trading Company

Petroleum Commission Act - Petroleum Commission Act, 2011 (Act 821)

PHF - Petroleum Holding Fund

PIAC - Public Interest and Accountability Committee

PITL - Petroleum Income Tax Law 1987 (PNDCL 188)

PPM - Price Parity Margin

PMS - Premium Motor Spirit

PRMA - Petroleum Revenue Management Act, 2011 (Act 815)

PSP - Petroleum Service Provider

RFO - Residual Fuel Oil

SPT - Special Petroleum Tax

UPPF - Unified Petroleum Price Fund

WAGP - West African Gas Pipeline

WCTP - West Cape Three Points

WTI - West Texas Intermediate

UNITS

BBLS - Barrels

BCF - Billion cubic feet

bn - Billion

GHS - Ghana Cedis

ltrs - Litres

mmscf - milliion standard cubic feet

mn - Million

mt - Metric tonnes

ppm - Parts per million

USD - US Dollar

\$ - US Dollar

EXECUTIVE SUMMARY

The Ghana Chamber of Bulk Oil Distributors (CBOD) produces the Ghana Petroleum Industry Report annually as a definitive source of data-driven analysis and strategic insights on Ghana's petroleum sector. The Report offers an extensive review of Ghana's upstream and downstream sectors, reviewing relevant policies and highlighting key industry trends and risks. The Report aims to offer industry players, policymakers, academics, and business leaders with the necessary information needed to inform strategic business decisions, investment planning, and policy development.

The 2024 edition of the Ghana Petroleum Industry Report is organized into eight chapters: the first four dedicated to the upstream sector, and the remaining four to the downstream sector.

The year 2024 was characterized by heightened political activity in Ghana and on the international front. Major economies, including the USA and UK, experienced changes in political leadership. With these countries being major players in the global oil and gas industry, policy shifts accompanying the leadership change, geopolitical activities, and energy transition pursuits majorly influenced developments in the oil and gas sector globally.

The EU, within the period, introduced the European Union Methane Regulation (Regulation (EU) 2024/1787) to regulate the measurement, verification, and reporting of methane emissions for imported crude oil, natural gas, and coal. The regulation requires importers to the EU market to report methane emissions from oil and gas production while establishing benchmarks and penalties for non-compliance. The UK government also announced an abolition of the 29% capital investment allowance while reducing the decarbonization investment allowance to 66% for upstream oil and gas companies under its energy profits levy law. These are expected to tighten the fiscal regime for conventional oil and gas investments while incentivising investments in decarbonization initiatives.

In the local front, the recovery of the upstream petroleum sector to pre-COVID or 2019 production levels has been generally sluggish uneventful. The country has not been able to ratify new petroleum agreements in the sector since 2018. A major challenge that arguably contributed to this was the arbitration between Eni/Vitol and Ghana over the Ministerial directive for unitisation of the Sankofa field and the Afina discovery, of which the International Arbitration Tribunal declared the directive for the unitisation unlawful and a breach of the Offshore Cape Three Points Petroleum Agreement.

Total crude oil production from the three producing fields for the period under review was 48.24 MMbbls. This represented a marginal reduction of about 0.02% from the 2023 production volume of 48.25 MMbbls. The performance of oil production for 2024 indicates that the country is still far off from attaining the 2019 production levels of 71.43 MMbbls by about 32.5%.

The total revenue received by the government in 2024 from the upstream petroleum sector was US\$1.36 billion. This amount represents an increase of about 28.3% as compared to the 2023 revenue of US\$1.06 billion. In 2024, petroleum receipts reached their second-highest level on record, surpassed only by the peak year of 2022 since commercial production began.

The Ministry of Energy introduced the Biofuel Development and Commercialisation (BDC) Initiative, aiming to integrate biofuels with conventional fuels into biofuel blends as the standard transportation fuel in the country. The initiative is envisioned to establish a well-coordinated value and supply chain system that will assure the supply of at least 3 billion litres of biofuels to the Ghanaian market by 2035 for blending with conventional fuels. An action Plan was drafted and submitted to the Ministry of Energy by the Multi-Sectoral Steering Committee for consideration.

The Ministry of Energy continued its pursuit of implementing the National LPG Promotion Programme (NLPGPP). The NLPGPP aims at ensuring a minimum of 50% of Ghanaians have access to safe, clean, and environmentally friendly LPG for domestic and industrial use by 2030. As a result, the ministry distributed sixteen thousand (16,000) LPG cookstoves with related accessories across eleven (11) MMDAs.

The BOG also reviewed the volume of FX auctioned to BIDECs under the Bi-weekly auction from an average of about US\$97mn monthly in 2022 to US\$40mn monthly from March 2023 through to December 2024. This was due to attempts by the BOG to increase its foreign exchange reserves, which had declined in 2022 to about 2.7 months of import cover. Due to the decline in the reserves, the BOG reduced its allocation to BIDECs by about 50% from about US\$1,166mn in 2022 to US\$578mn in 2023 and to US\$480mn in 2024.

The country's gross national consumption increased by 17% to 5.27 mn mt in 2024, of which a total of 5.25 mn mt, representing 99.6% was consumed by the non-power sector, while 0.4% was consumed by the power sector (fuel oil and gasoil for power). The main petroleum products (Gasoil Regular and Gasoline) each recorded an increase of 16% in 2024 from 2023. Gasoil remained the largest consumed product in the country in 2024, accounting for 50% of total petroleum products consumption. Gasoline was the second-highest consumed product in Ghana, accounting for 37% of total refined products consumption in 2024. The volume of MGO Local and Gasoil (Cell Site) increased by 85% and 264% respectively, from 2023 to 2024, raising concerns about the potential diversion of MGO local to retail outlets.

Kerosene consumption also declined by 31% to 1,777mt in 2024 from 2023, reflecting the downward trend witnessed over the years. This significant drop is largely attributed to the reduction in the use of the product as an adulterant for gasoil following the introduction of the Fuel Marking Programme and the removal of the kerosene subsidy in 2013.

Moreover, the consumption of LPG also increased by about 7% from 317,465 mt in 2023 to 340,492 mt in 2024 despite the 24% increase in LPG pump prices within the period. The increase in consumption could be attributed to improvements in the country's economic activities in 2024 and the introduction of the CRM.

In the OMC space, Goil Plc, although the market leader for the 10th consecutive year, lost ground in its market share decreasing from 20% in 2022 to 11.7% in 2024. Star Oil maintained its second position, gaining a 1.3% share in 2024 to 9.7%.

Ghana witnessed a 60% increase in total refinery output in 2024, attributed mainly to the operations of the 40,000bps Sentuo Oil Refinery. Sentuo's output accounted for 65% of the total output in 2024. Except for Sentuo Oil Refinery, the rest of the refineries recorded a reduction in output in 2024 from 2023.

Imports of crude oil and refined products increased by 4% in 2024 from 2023. Total imports of crude oil and refined products reached 5.35mn mt in 2024 from 5.14mn mt in 2023. In relation to exports, a total of 516,432mt of refined products were exported in 2024, representing an increase of 116% from 239,367mt in 2023. The government and the regulator are expected to continue to enact policies that will promote the exports of products to other neighboring countries.

Key recommendations.

♦ Enhance FX Support for Petroleum Imports:

The BoG should increase foreign exchange allocations to BIDECs through the special bi-weekly auction to ensure adequate FX availability for petroleum importation.

Stabilise the Cedi to Ease Pump Prices:

The government should implement targeted fiscal and monetary policy measures to stabilise the Cedi and reduce FX volatility, thereby reducing exchange rate–induced increases in pump prices.

Rationalise LPG Taxation:

Government should review excessive taxes on LPG, especially under the CRM, to enhance affordability and drive consumption. This aligns with regional best practices, including Côte d'Ivoire's 25% LPG subsidy, similar support measures in Angola, Cameroon, Senegal, and Morocco, and Nigeria's full removal of LPG taxes.

♦ Promote Product Exportation:

The NPA should introduce regulatory measures that facilitate BIDECs' export operations to neighbouring countries. In addition, a comprehensive petroleum export guideline should be developed to prevent product diversion and revenue losses.

♦ Reform Premix Subsidy Policy:

Government should phase out the premix fuel subsidy and redirect the associated funds (GHS 217mn in 2024) towards community-level social and infrastructure projects in fishing communities for greater developmental impact and introduce greener fuels for the artisanal fishing canoes.

Strengthen Export Control Protocols:

Clear and enforceable protocols should be established for petroleum product exports to curb diversion, smuggling, and tax evasion. This should include the development of a comprehensive petroleum products export manual.

♦ Expand Mooring Infrastructure:

Government should encourage the construction of additional mooring facilities within the Tema enclave to ease congestion at the CBM and reduce vessel demurrages.

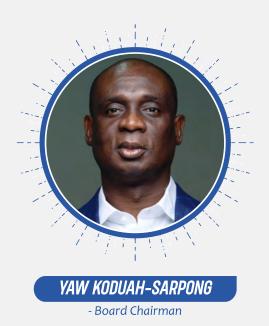
• Construct Storage and Pipeline Infrastructure in the Middle and Northern Belts:

Considering the rising petroleum demand in the middle and northern belts, government should provide incentives for the private sector and BOST to construct additional storage depots and pipelines in these zones. This will enhance zonalisation efficiency, minimise cross-zonal loadings that affect the UPPF and road accidents involving BRVs.

♦ CRM Promotion

The Regulator should independently track cylinders throughout the value chain to ensure transparency, fiscal accountability, and reliable data on cylinder population and market penetration. The NPA must also monitor cylinder use at the consumer level to facilitate the withdrawal of unsafe cylinders, as relying solely on bottling plants may compromise objectivity and undermine the integrity of the cylinder investment margin.

BOARD OF CBOD



Yaw Koduah-Sarpong is the Founder of NYKS Group Ltd and has a background in Accounting, Finance, and Taxation with over 20 years' experience in the Oil and Gas sector.

He serves as CEO of SA Energy Ltd, a Bulk Distribution Company. He holds directorships in several companies, including Paradise Havens Estate Ltd, Ladybird Logistics Ltd, and Transroyal Commodities Ltd.

Koduah-Sarpong is the current board Chairman of the Ghana Chamber of Bulk Oil Distributors. He is also a Director of Legacy Bonds Ltd and an advisory board member of Sarpong Capital Ltd.

He is a Chartered Accountant and holds certificates in "Negotiation and Competitive Decision-Making" and "Influence and Negotiation Strategies" from the Harvard Business School and Stanford University, respectively.

Before his work in the Oil and Gas sector, Yaw was a Tax and Legal Consultant at Ernst & Young, Ghana.



Elton Dusi is the CEO of Maranatha Oil Services Limited. He is a Chemical Engineer and an Entrepreneur with over 17 years experience in the oil and gas industry. Prior to Maranatha, he served as the CEO of Ebony Oil & Gas and held managerial roles in Oando Ghana. He holds an MBA from the Ghana Institute of Management and Public Administration (GIMPA) and a Bsc. in Chemical Engineering from the Kwame Nkrumah University of Science and Technology (KNUST).



KINGSLEY SARPONG
- Member

Kingsley Sarpong is an established Energy, Oil, and Gas Professional with an extensive trajectory built on over ten (10) years of commended industry experience.

His work experience prior to joining Chase Petroleum Ghana Limited in 2010 has been in Banking sales, Logistics Management, Travel and Tour Management, and Broadcast journalism.

His career with Chase Petroleum Ghana Limited started as a Marketing Executive before he moved on to become the Head of Commercial. Today, Kingsley serves as the company's Managing Director. He has led the way on several reforms and structural changes in the company and introduced many of the newer business initiatives responsible for driving the company forward.

Ever the advocate for personal progression and holistic contributions to any given workforce, Kingsley has undertaken a plethora of development courses and seminars pertaining to the areas of Customer Relationship Management, Credit Control Management, Oil and Gas Trading and Operations, Solution Selling, Corporate Growth strategy, as well as having strengthened his approach to leadership as an alumni at institutions such as Sales Performance International, CITAC, Harvard Business School, Yale School of Management, Temple University and North-Eastern University.

Kingsley is a director on the board of Chase Petroleum, was recently elected a board member of the Chamber of Bulk Distributors (CBOD).

He holds an EMBA in Marketing from the University of Ghana Business School and an MSc. in Economics – Energy and Natural Resource Economics (KNUST), a Postgraduate Certificate in Marketing (Central University College), and a BSc. (Hons) in Physics from KNUST.

He was awarded Global Excellence Business Leader Award in 2020 by the Swiss School of Business and Management (SSBM).



AMENTOR SAM AZIAKAR

- Member

Amentor Sam Aziakar is the Head of Technical Services at Goenergy Company Limited, with over 20 years of expansive experience in commercial operations, engineering, and supply chain management, across both Oil & Gas and FMCG markets.

Prior to joining Goenergy, he was the Supply Manager for Vivo Energy Ghana Limited and the Country Operations Manager for Shell Aviation, Ghana.



Nana Adwoa Serwaa Kuma-Duah is a Chartered Accountant with over 17 years' experience in finance and petroleum.

She is the Chief Finance Officer and Head of Stocks at the Tema Fuel Company Ltd.

She holds an MSc in Energy, Trade and Finance from Cass Business School, UK and a Bsc in Accounting from the University of Ghana Business School, Legon.



Edem Boni is Terminal Director at Tema Tank Farm. He joined TTF as the Engineering and Project Manager in November 2011 and rose through the ranks into his current role.

Edem obtained his bachelor's degree in electrical engineering from KNUST, Ghana, and his master's degree in Instrumentation and Automation Engineering from PTC, Orbe Switzerland. As a PMP Certified Project Professional, he was the first choice for Project Manager in the construction of both CLL Phase II and CLL Phase III Tank Farms, the building of the Adinkra Tank Farm, and the Gantry Expansion project tailored to further increase loading efficiency at the TTF Depot. His passion for bringing projects to successful completion is evident throughout his career. Prior to joining Tema Tank Farm, he worked as an Electrical, Instrumentation and Automation Engineer and then Project Lead for Instrumentation and Automation for Infant Cereals at Nestle Ghana, where he served in many key projects between 2008 and 2011.

Edem has faithfully served in his career within the Food Sector and O&G Industry. He firmly believes in supporting women in engineering and creating opportunities for persons (young and old) to learn and develop their skills.



Afia Owusuaa Darkwah is an experienced professional in the oil and gas industry, currently serving as the Head of the Commercial & Marketing Department at Fueltrade LTD. With over 12 years of industry experience, she has played a key role in driving commercial growth and strategic marketing initiatives within the petroleum sector. She holds a master's in business administration (MBA) from the University of Roehampton, UK, and a degree in Marketing from the Methodist University College of Ghana. Additionally, she holds a Leadership Certificate from the African Training Institute (ATI) in South Africa. Her expertise spans business development, market analysis, and strategic partnerships, making her an asset in Ghana's energy sector.



Maxwell Yao Atila is an accomplished Chartered Accountant and Tax Consultant with over a decade of expertise in financial accounting, taxation, auditing, and strategic management. With more than 10 years of experience in the downstream oil and gas sector, Maxwell has a proven track record of driving financial excellence and operational efficiency in a highly competitive industry. As the Tax Partner at Prime Chartered Accountants (PCA), Maxwell has provided comprehensive audit and financial consultancy services to a wide array of clients, spanning oil and gas, insurance, hospitality, and financial services. His core competencies include financial reporting, internal controls, cost optimization, and corporate governance, ensuring organizations achieve both operational efficiency and regulatory compliance. In his role as Head of Finance and Administration at AlfaPetro Ghana Limited, Maxwell leads the company's financial strategies, compliance frameworks, and administrative operations. His strategic leadership ensures the seamless integration of financial processes with business objectives, fostering growth and sustainability. Maxwell holds a Bachelor of Science in Accounting from the University of Professional Studies and a Professional Master's in Business Administration (PMBA) in Strategic and Project Management from the Paris Graduate School of Management. His academic background, coupled with hands-on experience, equips him with the skills to navigate complex financial landscapes, implement innovative solutions, and drive organizational success. A chartered member of both the Institute of Chartered Accountants, Ghana (ICAG) and the Chartered Institute of Taxation, Ghana (CITG), Maxwell's commitment to excellence is evident in his achievements, including being awarded the Overall Best Student by the Chartered Institute of Taxation in 2014. Known for his dedication to continuous learning and strategic insight, Maxwell consistently transforms financial challenges into opportunities for growth and innovation.



- Member

Ahmed Abdul-Sherif heads Quantum Oil Terminals Limited, as Terminal Manager, with combined 16 years petroleum downstream experience spanning various roles in Oil Marketing Company (OMC), Bulk Distribution Company (BDC), and Terminal (Depot) Operations Management. He holds post-graduate qualifications in Business Administration (Project Management, KNUST), Occupational Safety, Health and Environmental Management (GIMPA) and a Bachelor of Science degree in Agricultural / Biosystems Engineering (KNUST).



Yaa Serwaa Alifo is the downstream business head of the Sahara Group in Ghana. Her responsibilities include overseeing Business Development, Business Strategy, Risk & Operations Management. Yaa Serwaa's experience working in the downstream sector spans over ten (10) years having served in key roles which includes Head, Trade Operations (PWSL-BDC), Head, Business Development (PWSL-BDC), Head, Risk & Contracts Management (So Energy & So Aviation Ghana Ltd).

She joined the Sahara Group through the Graduate Management Talent Program with a background in Banking & Finance where she excelled as a top talent, which earned her the opportunity to serve as a strategy and business aide to the Director and founder of the Sahara Group. She is credited to have played a vital role in identifying and developing innovative and transformative solutions for the bulk import and distribution arm of Sahara's operations across the subregion, leveraging on her remarkable trading and analytical skills which was key to driving and delivering on the company's core business focus. Her passion for youth development and giving back to the less privileged is expressed through her involvement with corporate social responsibility activities and various foundations key amongst them being the Sahara Foundation; which has recorded many interventions in the area of Education, Environment, Health, Capacity building and currently in the area of entrepreneurship using a model that seeks to drive sustainability and create platforms that finds, creates and connects young people with business interests in emerging markets.



Emmanuel Akakpo is presently the Chief Finance Officer of Cirrus Oil Services Limited and has spent over 18 years in the petroleum industry. He has vast experience in oil import financing, managing banking relationships across both international and local banks, structuring financing facilities for the tank farm projects and a consultant for industry players on industry finance related matters.

Prior to joining Cirrus Oil, Akakpo was an Audit Senior with Ernst & Young, Ghana, where he carried out assurance services across clients with varied backgrounds. Akakpo holds a degree in Business Administration (Accounting option) from the University of Ghana Business School, Legon, and is a member of the International Academy of Business and Financial Management as a Certified Risk Analyst as well as a member of the Association of Chartered Certified Accountants (ACCA) UK.



- Chief Executive Officer

Dr. Patrick Kwaku Ofori has more than eighteen (18) years of varied executive professional experience spanning Higher Education, Sports, and the Oil and Gas industry.

Prior to his appointment as CEO of CBOD, he held several strategic leadership roles at the Ghana National Petroleum Corporation (GNPC). He served as the Manager for Crude Oil and Products Marketing, where he was instrumental in driving GNPC's commercial operations and optimizing the Corporation's trading performance. He also previously held the position of Manager for Institutional Reporting and Stakeholder Relations at GNPC, overseeing regulatory engagement, and strategic reporting initiatives.

He holds a PhD in Sports Psychology from the University of Stirling, Scotland, and an MSc in Accounting and Finance from the University of Ghana. He also holds an Executive Certificate in Oil, Gas, and Mining Governance from the Blavatnik School of Government, University of Oxford. He is a Commonwealth Scholar and an International Convention on Science, Education, and Medicine in Sports (ICSEMIS) Scholar.

Dr Ofori is also the Founding Head of the Department of Sports Science at the University of Cape Coast.



UPSTREAM SECTOR POLICY REVIEW

1.1 OVERVIEW OF THE UPSTREAM SECTOR

The year 2024 was characterized by heightened political activity in Ghana and on the international front. Major economies, including the USA and UK, experienced changes in political leadership. With these countries being major players in the global oil and gas industry, policy shifts accompanying the leadership changes, such as the hinted imposition of import tariffs by the USA, are expected to influence the global context of the oil and gas industry.¹

In addition to the geopolitical activity, the energy transition agenda continues to influence developments in the oil and gas sector globally. For instance, the EU introduced the European Union Methane Regulation (Regulation (EU) 2024/1787) in August 2024 to regulate the measurement, verification, and reporting of methane emissions for imported crude oil, natural gas and coal.² This regulation will require importers to the EU market, of which Ghana is part, to report methane emissions from oil and gas production while establishing benchmarks and penalties for non-compliance.

The UK government also announced an abolishment of the 29% capital investment allowance while reducing the decarbonization investment allowance to 66% for upstream oil and gas companies under its energy profits levy law. The levy was also increased from 35% to 38% and the sunset period extended to 2030. This is expected to tighten the fiscal regime for conventional oil and gas investments while encouraging investments in decarbonization. With the UK being a leader in the European economy, other countries could potentially adopt similar approaches, potentially impacting the larger oil and gas market conditions.

In Ghana, the recovery of the upstream petroleum sector to pre-covid or 2019 production levels has been generally slower than expected. The country has not been able to ratify new petroleum agreements in the sector since 2018. A major challenge that arguably contributed to this was the arbitration between Eni/Vitol and Ghana over the Ministerial directive for unitisation of the Sankofa field and the Afina discovery. In July 2024, the International Arbitration Tribunal returned its final ruling determining the unitisation directive as unlawful and in breach of the Offshore Cape Three Points Petroleum Agreement. Following the change in government in January 2025, the unitisation directive was withdrawn by the new government, bringing a finality to the 5-year standoff.

Within the year under review, the policy and legal landscape remained constant from 2023 except for the development of an Onshore Petroleum Exploration and Production Policy by the Ministry of Energy. The policy is expected to attract investments and accelerate the development of Ghana's onshore sedimentary basins. Following the approval of the policy by Cabinet, four exploration licenses were granted to four companies: GNPC Exploration and Production Company Limited over Block GH_VB_01 in the Voltaian Basin, Menxons Limited over Block GH_TB_01 in the onshore Tano basin and Block GH_VB_02 in the Voltaian Basin and Bay Veritas Limited over Block GH_VB_03 in the Voltaian Basin.

An exclusive reconnaissance license was also granted to Astron Oil and Gas Limited for an acreage in the Voltaian Basin.

1.2 NEW DEVELOPMENTS IN THE SECTOR

Deep Water Tano / Cape Three Points (DWT/CTP) Field:

In June 2023, the DWT/CTP Plan of Development (PoD) was approved by the Ministry of Energy. From the approval of the PoD and throughout 2024, the contractor mainly focused on reaching the Final Investment Decision (FID) and procuring services for the installation of the FPSO and other subsea infrastructure. One Subsea and Subsea 7 were selected after tender processes for the Subsea Production Systems (SPS) and Subsea Umbilicals Risers and Flowlines (SURF) scopes respectively, while the FPSO contract was being discussed with Drydocks World Dubai. However, the contractor was yet to take the FID as of the end of the year, 2024.

 $^{^1} CNN (2025). \ https://edition.cnn.com/2025/03/31/economy/tariffs-largest-tax-hike/index.html$

² Sustainability in Business (2024). EU Methane Regulation – What Importers and Exporters Need to Know. Retrieved from https://www.sustainabilityin business.blog/2024/10/eu-methane-regulation-what-importers-and-exporters-need-to-know/

Cape Three Point (CTP) Block 4:

Eni continued to appraise the Eban, Akoma and Aprokuma discoveries. In relation to this, the Eban-Akoma Appraisal Programme was extended twice with the second extension spanning from 4th November 2024 to 4th March 2025 while the Aprokuma-1X Appraisal Programme was amended to include the drilling of an appraisal well and the appraisal period extended by two years, effective 20th September, 2024 to 19th September, 2026.

Saltpond Field Decommissioning:

The decommissioning of the Saltpond field began in September 2022 and by May 2023, all the six wells in the field were plugged and abandoned. Dismantling of the Mr. Louie Production Platform commenced in the first quarter of 2023 and by October 2023, when the decommissioning operations were suspended by the contractor, all the twelve (12) legs above the platform deck level, Helideck, davits, flare stack and accommodation unit among others were cut, representing about 50% of the Platform.

In December 2023, the contractor demobilised from the operation site, citing non-availability of funds arising from delayed payments and non-payment of project variation costs.

Consequently, GNPC, in 2024, planned to procure a third-party verification firm to verify the costs and the work done and advise on the remaining scope of the project.

By the end of 2024, the remaining 50% of the Mr. Louie Platform had not been decommissioned.

Unitisation of the Afina and Sankofa Fields:

In 2020, the Ministry of Energy issued a directive for the unitisation of the Afina and Sankofa fields operated by Springfield and Eni respectively. This resulted in an arbitration conducted under the 1976 United Nations Commission on International Trade Law (UNCITRAL) Rules, involving Eni Ghana Exploration and Production Limited and Vitol Upstream Ghana Limited against the Republic of Ghana and GNPC. The complainants held the view that the unitisation directive was premature and required further data to establish communication between the two fields. At the conclusion of the arbitration in July 2024, the International Arbitral Tribunal ruled that the unitisation directives were unlawful and breached Article 26(2) of the Offshore Cape Three Points Petroleum Agreement. Subsequently, the Ministry took steps to remedy the breach, which included directing Springfield to appraise the Afina discovery, which it did.

Transfer of JOHL interests to GNPC Explorco:

GNPC Explorco currently holds the additional 7% commercial interest in the Jubilee and TEN fields, which GNPC acquired from Occidental Petroleum (Anadarko WCTP Company) in April 2021 as part of the DWT/WCTP assets. These interests were previously held by JOHL, an offshore company initially established by Kosmos Energy to temporarily hold the 7% interest until GNPC paid for it. The transfer of the interests to GNPC Explorco increases Ghana's participating interest in the WCTP and DWT Petroleum Agreements and the Jubilee Unitisation and Unit Operating Agreement.

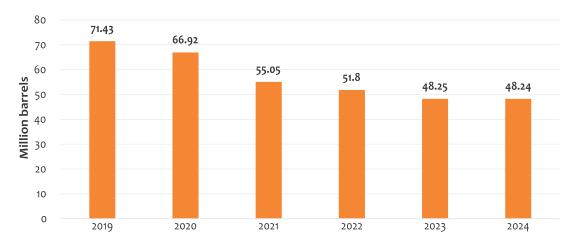
In the year under review, GNPC Explorco made two (2) liftings, amounting to US\$145,681,117.

1.3 TRAJECTORY OF PRODUCTION

Crude Oil:

Total crude oil production from the three producing fields for the period under review was 48.24 MMbbls. This represented a marginal reduction of about 10,000 barrels or 0.02% from the 2023 production volume of 48.25 MMbbls. The recorded production also missed the benchmark volume of 51.15 MMbbls for 2024 by about 6%. The performance of oil production for 2024 indicates that the country is still far off from attaining the 2019 production levels of 71.43 MMbbls by about 23.2 MMbbls or 32.5%. The reporting period marks the fifth consecutive annual decline in crude oil production since 2019. The sustained production decline has been driven by multiple factors, including equipment malfunction and maintenance challenges, rising gas-to-oil ratios, increased water and gas break throughs, flow assurance issues and reservoir or geological complexities.

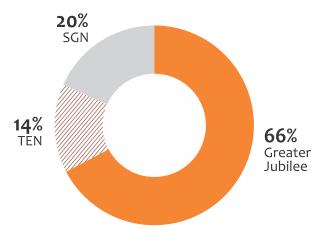
Figure 1: Crude Oil Production Volumes (2019 – 2024)



Source: Author's construct from Energy Statistics and 2025 Budget and Economic Policy.

Of the 48.24 MMbbls, the Greater Jubilee field recorded the highest production volume of 31.85 MMbbls, TEN field recorded 6.78 MMbbl while SGN recorded 9.61 MMbbl. This indicates that the Greater Jubilee field remains the most productive oil field in Ghana's upstream sector. The Greater Jubilee field therefore represented about two-thirds (66%) of the total production while TEN and SGN represented 14% and 20%, respectively.

Figure 2: Contribution of Individual Production Fields in 2024

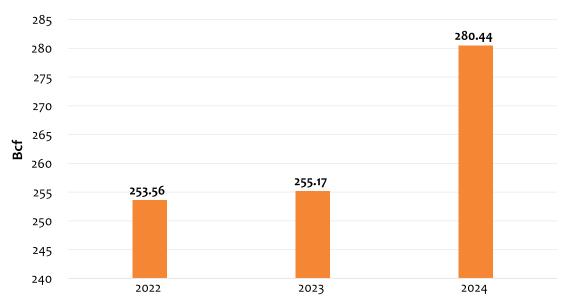


Source: Author's construct from 2025 Budget and Economic Policy.

Natural Gas:

The total natural gas production from all producing fields in 2024 was 280.44 Bcf. This represented an increase of 25.27 Bcf or 9.9% over the 2023 production volume of 255.17 Bcf. Of the 280.44 Bcf of natural gas produced in 2024, 115.45 Bcf was exported for power generation and other industrial applications while the remaining 164.99 Bcf was either reinjected, flared or used on the FPSOs for power generation. This means that less than half (41.2%) of the total natural gas produced was exported for power generation and industrial purposes, while 58.8% was not commercialized.

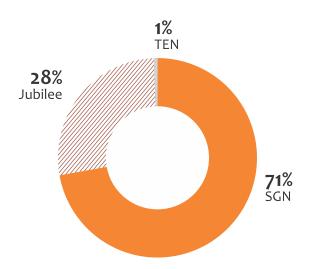
Figure 3: Total Natural Gas Production from Ghana's Upstream Sector (2022-2024)



Source: Author's construct from PIAC and Ministry of Finance

Of the total gas exports, the SGN field accounted for 81.8 Bcf, significantly outpacing production from the Greater Jubilee (32.8 Bcf) and TEN (0.86 Bcf) fields. With a 71% share of total export volumes, SGN maintains its position as the dominant gas exporter in the upstream sector.

Figure 4: Contribution of Individual Fields to Gas Exports in 2024

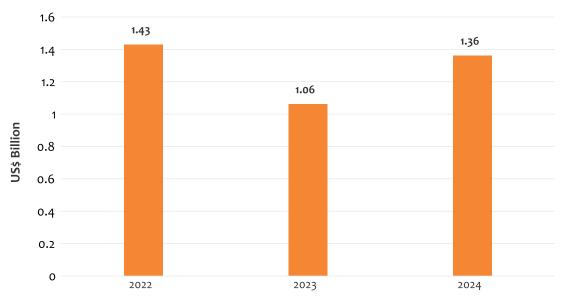


Source: Ministry of Finance

1.4 PETROLEUM REVENUE PERFORMANCE

The total revenue received by the government in 2024 from the upstream petroleum sector was US\$ 1.36 billion. This amount represented an increase of about 28.3% as compared to 2023 revenue of US\$ 1.06 billion. The better revenue performance in 2024 was probably driven by the increased interest on the petroleum holding fund and interest on late payments by operating companies, increased revenues from Corporate Income Tax (CIT) and the Carried and Additional Participating Interest (CAPI) and the oil price. In 2024, petroleum receipts reached their second-highest level on record, surpassed only by the peak year of 2022 since commercial production began.

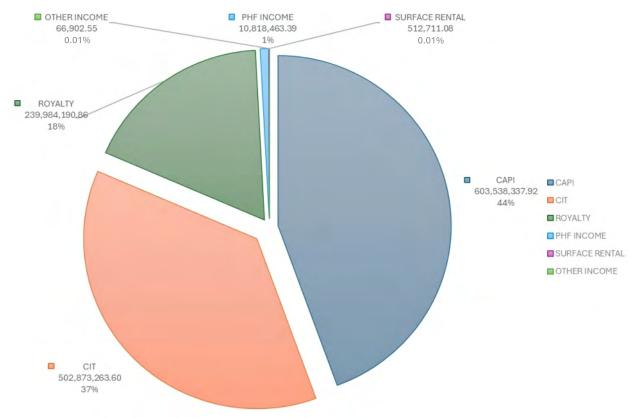
Figure 5: Petroleum Receipts (2022 - 2024)



Source: Ministry of Finance and PIAC

The petroleum receipts are composed of payments of royalties, Corporate Income Tax (CIT), Carried and Participating Interest (CAPI), surface rentals, interest on the petroleum holding fund and interest on late payments by operating companies. In 2024, the CAPI contributed the highest value, about 44%, to the total revenue received by government. CIT and royalties followed with 37% and 18%, respectively.

Figure 6: Contribution of Revenue Components (2024)



Source: 2024 PIAC Report

1.5 NEW INVESTMENTS IN THE UPSTREAM SECTOR

The work programmes of oil and gas producing companies provide insight into upstream investment levels aimed at sustaining or increasing production. During the period under review, two of the three producing fields did not undertake any well drilling or completion activities. The Jubilee Field, which is the largest producing field, recorded a total of four well operations. Two wells (one producer and one water injector) were drilled and completed while two producer wells were completed. These investments were expected to boost production.

1.6 IMPACT OF ENERGY TRANSITION

The energy transition has introduced so much uncertainty in the global upstream industry, culminating in reduced investments in oil and gas exploration and production. The uncertainty about future oil demand and supply accounts largely for the oil price volatility in recent years, which further stifles the appetite for investments in oil and gas exploration and production, especially long-term investments.

Ghana has had its share of the impacts of the energy transition, as all efforts to attract new investments to the country's upstream industry have proved futile since the energy transition became topical across the globe. A case in point is the prolonged negotiations with the winning bidders of Ghana's maiden oil and gas licensing, which resulted in no petroleum agreements. The uncertainty in the upstream industry and the scarcity of capital for hydrocarbon projects orchestrated by the energy transition made the potential contractors hesitant to take certain risks and to agree to provisions of the model petroleum agreement that, under normal circumstances, would be readily accepted.

Apart from this, the industry in Ghana also witnessed the exit of some contractors and delays in the execution of the work programmes in some contract areas due largely to funding challenges and the high cost of rigs and other equipment emanating from the energy transition.

It suffices to say that the energy transition has led to delays in the development of Ghana's petroleum resources and continues to adversely impact the industry, with the stranding of the country's petroleum resources looming if nothing is done.

1.7 NEW LICENSE AND EXPLORATIONS

Since 2018, Ghana has not ratified any new Petroleum Agreements, keeping the total number of existing agreements at 13. However, a new petroleum agreement was signed between the Government of Ghana, GNPC, GNPC Explorco and Tristar Upstream Oil and Gas Limited in respect of Block GH_WB_01 in the Offshore Western Basin pending parliamentary ratification.

Exploration activities continued in the contract areas, with the aim of advancing them toward production. Key developments in exploration include the following:

Expanded Shallow Water Tano (Base Energy):

Base Energy and GNPC Explorco were expected to acquire new 3D seismic data over the Expanded Shallow Water Tano Block by the fourth quarter of 2024. However, this was not realized as the contractor struggled to secure a strategic partner to help it undertake its obligations in the block. Given this and other impediments, the contractor sought and obtained a further extension of the exploration period from 30th September 2024 to 31st March 2025. Within this extension period, the contractor was required to secure the strategic partner and acquire the 3D seismic data covering the block.

Central Tano Block (Amni International Petroleum Development):

The Minister for Energy granted Amni an extension of its Exploration Period until 30th September 2024 and later further extended it from 30th September 2024 to 31st March 2025. The contractor was expected to use this period to resolve all its challenges and secure a firm drilling contract for its obligatory exploration well (Kusia-1X).

Offshore South-West Tano (OSWT) & East Keta (EK) – Operating Company Ghana Limited (OPCO):

OPCO was granted a further extension of its Exploration Period from September 30 2024 to March 31 2025, to resolve all its challenges and secure a firm drilling contract for its obligatory exploration well.

Deepwater Cape Three Points West (Eco Atlantic Oil and Gas):

The Minister for Energy further extended the Exploration Period of the Deepwater Cape Three Points West Block from 30th September 2024 to 31st March 2025 to secure a drilling contract for its obligatory exploration well (Dawadawa-1X). According to Eco Atlantic, it had begun the procurement of long lead items in preparation for the drilling of the well before the year ended.

East Cape Three Points (Medea Development):

Medea and Partners spent the year under review trying to attract partners to the block. It submitted a draft Farm-in/Farm-out agreement to the Minister for Energy and following a review of the agreement, Medea was required to provide additional documents of the potential partners for further evaluation of their suitability for oil and gas exploration and production.

To enable the Contractor to conclude all matters relating to the Farm-Out (including all conditions precedent) and the execution of the Farm-Out agreement, the Ministry extended the Exploration Period of the East Cape Three Points Block by four months effective, 30th September 2024. The requested documents were submitted for evaluation by the Ministry.

If the Ministry finds them satisfactory and approves the Farm-out agreement, the Exploration Period will be further extended by 32 months to enable the contractor to mobilise and drill the exploration well.

Deep Water Cape Three Points Block

Following the exit of ExxonMobil Exploration and Production Ghana (Deepwater) Limited from the Deepwater Cape Three Points Petroleum Agreement in 2021, ExxonMobil's participating interest of 80% was transferred to Goil Upstream Ghana Limited (GUL), the indigenous Ghanaian Company in the PA, upon its request. With this development, GUL then held 85% participating interest in the block. To enable GUL to execute the remaining obligations of the contractor under the PA, it signed a farm-out agreement and a Joint Operating Agreement with Planet One Oil and Gas Limited (POOGL) in December 2023 to assign 75% of its interest to the latter. The assignment was approved by the Minister for Energy on 14th February 2024 in accordance with the Petroleum (Exploration and Production) Act 2016, (Act 919) and its regulations and POOGL was made the operator of the block.

Following the approval of the assignment, the DWCTP partners sought and obtained an extension of their initial exploration period by one year to 31st January 2026 to enable the new partner and operator to conduct additional studies and finalise the next steps in terms of drilling of exploratory wells and moving the block to commercial production.

1.8 THE VOLTAIAN BASIN AND WAY FORWARD

GNPC has been at the forefront of exploration efforts in the Voltaian Basin for several years. The most recent phase—Phase IV—of its 2D seismic acquisition programme commenced in March 2023 and was completed in April 2024. This phase significantly enhanced existing 2D seismic coverage by filling data gaps, reducing geological risk, and providing deeper insights into the basin's subsurface structure. A total of 1,832 line-kilometres of 2D seismic data were acquired. The acquisition and processing were undertaken by BGP-BAY Geophysical Services Limited. Initial interpretation of the dataset has resulted in the identification of over 38 structural and stratigraphic leads.

To support the responsible development of onshore petroleum resources, the Ministry of Energy has formulated an Onshore Petroleum Exploration and Production Policy to guide oil and gas exploration and production activities across the country's onshore sedimentary basins. The implementation of this policy is expected to attract investments into the Voltaian Basin. Following the approval of the Onshore Petroleum Exploration and Production Policy by Cabinet, the Energy Ministry granted three exploration licenses covering three acreages and one exclusive reconnaissance license for an acreage in the Voltaian Basin. The reconnaissance licence holder is Astron Oil and Gas Limited.

Table 1: Exploration Licenses Within the Voltaian Basin

Block	Operator		
Block GH_VB_01	GNPC Explorco		
Block GH_VB_02	Menxons Limited		
Block GH_VB_03	Bay Veritas Limited		

The execution of the work programmes in these licensed areas will help derisk the Voltaian Basin and lead to Ghana's first onshore oil and gas production. However, the commencement of the envisaged activities in these licensed areas is dependent on the review of the existing petroleum upstream legislation to align with the Onshore Petroleum Exploration and Production Policy.

1.9 RECOMMENDATIONS

- 1. To ensure Ghana's attractiveness to investors, the government must prioritize policy credibility and predictability. Maintaining regulatory consistency and upholding sanctity of contracts would protect investor interests while ensuring fair benefits for the state. Such measures would lower perceived political risks and encourage long-term capital commitments.
- 2. The Ministry of Energy and Petroleum Commission should rigorously enforce exploration commitments to optimize resource development. This can be achieved by implementing strict "drill or drop" provisions in petroleum agreements and introducing progressive penalty systems for delayed exploration programmes. These actions would prevent speculative block holding and accelerate the conversion of resources into production.
- 3. Gas commercialisation should be prioritised as a strategic national objective. The Ministry of Energy should increase efforts to implement the Gas Masterplan to ensure gas resources are adequately utilised.



UPSTREAM FINANCIAL REVIEW

2.1 FISCAL REGIME OF GHANA

The fiscal regime of Ghana's Upstream Petroleum Industry is governed by statutes including; Petroleum (Exploration and Production) Act, 2016 (Act 919), the Petroleum (Exploration and Production) (General) Regulations, 2018, LI 2359 as amended in LI 2390, the Petroleum Income Tax Act, 2015, (Act 896), the Petroleum Revenue Management Act, 2011, (Act 815) as amended in Act 893 and the Petroleum Revenue Management Regulations, 2019 (L.I. 2381). These statutes provide the details of revenues to be paid to the state. Beyond these laws, the Petroleum Agreements (PAs) provide more specific definitions of the fiscal elements negotiated between the State and the companies. The main fiscal instruments across all producing fields are Royalties, Corporate Income Tax, Additional Oil Entitlement, Surface Rentals, and Carried and Additional Participating Interests.

- **Royalties:** This is an entitlement of the country to a percentage of gross oil or gas production. Ghana's royalty interests in the three producing fields are 5% from the Jubilee and TEN Fields and 7.5% from the Sankofa Gye Nyame (SGN) Field.
- Carried and Additional Participating Interest (CAPI): This is the Initial Participating Carried Interest and the Additional Participating Interest held by the GNPC on behalf of the State. With the Initial Participating and Carried Interest, GNPC is carried through exploration and development, meaning it does not contribute to exploration and development costs. During production, however, it contributes a proportionate share of the production costs. The Petroleum (Exploration and Production) Act, 2016, (Act 919) requires that GNPC should hold at least 15% Initial Participating Carried Interest in every petroleum agreement.

In the three producing fields, the Initial Participating Carried Interest is 10% for the Jubilee and TEN fields and 15% for the SGN field. The Petroleum Agreements covering these producing fields were signed under the Petroleum (Exploration and Production) Act, 1984, PNDCL 84, which required GNPC to hold at least 10% Carried Interest.

The Additional Participating Interest is a paying interest and is exercised when a commercial discovery is made. The Additional Participating Interest requires GNPC to contribute to development and production proportionate to the additional interest it holds. The additional interest in the Jubilee Field is 3.64% and 5% for the TEN and SGN fields respectively.

- **Corporate Income Tax:** This is a tax payable on income derived from oil and gas production. The Corporate Income Tax is 35% of net profit.
- Surface Rentals/Acreage fees: This revenue accrues to the country from charging companies for the occupation and use of acreages because they belong to the State. Acreage fees are enshrined in the law (Act 919) and range from US\$150 to US\$900 per square kilometre, depending on the phase of operation and the environment (whether offshore or onshore). Most of the existing petroleum agreements predate Act 919 and, therefore, have Surface rentals/acreage fees ranging from \$30 to \$200 per square kilometre, depending on the phase of operation.
- Additional Oil Entitlements (AOE): This is determined based on the after-tax inflation-adjusted rate of return on each field. The AOE is a windfall tax to the government and is enshrined in law.

2.2 PETROLEUM REVENUE FOR 2024

The Petroleum Revenue Management Act (PRMA), 2011 (Act 815) sets up the framework for collecting, allocating and utilising petroleum receipts. It empowers the Ghana Revenue Authority (GRA) under Section 3 to assess, collect and account for petroleum revenue due the State from defined sources. The main revenue sources are Royalties, Carried and Additional Participating Interest (CAPI), Corporate Income Taxes (CIT), Surface Rentals, PHF income and other income.

In 2024, a total amount of US\$1,357.7 million was paid into the Petroleum Holding Fund (PHF) as petroleum receipts from Ghana's three producing fields, i.e., Jubilee, TEN and Sankofa Gye Nyame (see figure 7). This represents an increase of about 27.81% from the 2023 receipts of US\$1,062.3 million despite the marginal decline in production by about 0.01% in 2024. This has brought the cumulative total petroleum receipts since 2011 to about US\$11.19 billion and the cumulative oil production from 2010 to 2024 now stands at 657 million bbls.

1,600 53,000 1,400 52,000 Barrels 1,200 51,000 Million US\$ 1,000 50,000 800 49,000 600 48,000 400 47,000 200 0 46,000 2023 2022 2024

Figure 7: Crude oil production and petroleum receipts from 2022 to 2024

■ TOTAL Receipts

Source: 2024 PIAC Report

The increased revenue in 2024 relative to 2023 can be attributed to the higher-than-expected global crude oil prices, the increased interest on the PHF and interest on late payments by operating companies, increased revenues from Corporate Income Tax (CIT) and the Carried and Additional Participating Interest (CAPI) (see Figure 8).

Crude Production

The Ghana Group's average achieved price of US\$78.75/bbl for all fields was above government's 2024 benchmark price of US\$75.44/bbl. This represents a positive variance of US\$3.31/bbl. The average achieved price by GNPC on behalf of the Ghana Group for the three producing fields increased from US\$42.49/bbl in 2020 to US\$63.61 per barrel in 2021 and increased marginally from US\$78.07/bbl in 2023 to US\$78.75/bbl in 2024. The liftings from Jubilee field achieved an average price of US\$83.04/bbl while TEN and SGN average achieved prices were US\$74.30/bbl and US\$78.9/bbl respectively.

Crude oil production declined for the fifth consecutive year in 2024. Production has dropped from a high of 71.44 million bbl in 2019 to 48.25 million bbl in 2024.



Figure 8: Comparison of petroleum receipts between 2023 and 2024

Source: 2024 PIAC Report

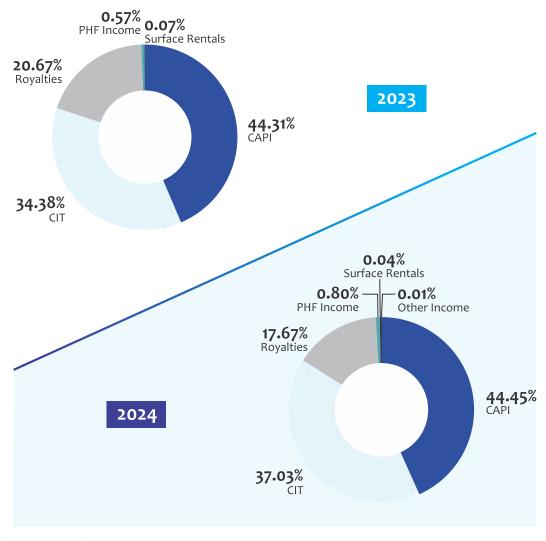
CAPI contributed about U\$603.54 million to total receipts, representing 44.5% of the total receipts in 2024. Contributions by CAPI increased significantly by about 28.2% from 2023. The Jubilee field, which is the largest producing field, contributed about 57% of CAPI while TEN and SGN contributed about 18% and 25% respectively. In 2023, the Jubilee field contributed about 73% to CAPI, representing 44.3% of the CAPI in that year.

Total royalties in 2024 amounted to US\$239.98 million with the Jubilee field accounting for 55% of it and SGN and TEN contributing about 29% and 16% respectively. In 2023, Royalties contributed about US\$219.61 million of total petroleum receipts representing 21% of the total receipts with the Jubilee Field contributing 60% of the total Royalties for the period, followed by SGN (31%) and TEN (9%) (see Table 2).

Table 2: Comparison of 2023 and 2024 CAPI and Royalty

	Jubilee		Т	TEN SGN		in	Total	
	2023	2024	2023	2024	2023	2024	2023	2024
CAPI	342,896,249	343,076,400	54,074,560	111,353,702	73,702,937	149,108,236	470,673,746	603,538,338
Royalty	132,302,539	132,372,048	18,973,530	39,071,474	68,332,716	68,540,669	219,608,785	239,984,191
	475,198,788	475,448,447	73,048,089	150,425,176	142,035,653	217,648,905	1,062,323,419	1,357,793,869

Figure 9: Comparison of petroleum receipts between 2023 and 2024



Source: (2024 PIAC Report)

CIT is charged at a rate of 35% on profits of the IOCs in accordance with the tax law. In 2024, the three (3) fields generated CIT of US\$502.87 million, representing a 37.7% increase from that of 2023 (US\$365.19 million). CIT was the second highest petroleum revenue stream in 2024 and the amount realised was the highest CIT since the start of crude oil production (see figure 9).

Surface Rental receipts in 2024 amounted to US\$512,711.08, representing a 33.5% decline from the 2023 amount of US\$771,200.48. The 2024 amount was realised from eight contract areas instead of 13, which was the active number of petroleum agreements in Ghana as at the end of the year. This means about 60% of the operators paid their surface rental assessments as of 31st December 2024. The five operators that did not pay their surface rentals are Eco Atlantic, Springfield Exploration & Production, Medea Development, Base Energy Ghana Ltd, and OSWT & EK Operating Company Limited (OPCO).

In 2024, the Petroleum Holding Fund also yielded interest amounting to US\$10.82 million, representing a 78.2% increase from US\$6.07 million, which was the interest realised in 2023. The increment in the PHF interest is attributed to relatively higher overnight rate on PHF cash holdings in 2024.

The year under review also witnessed other income accruing to the PHF from Germcorp Commodities Trading, which paid an amount of US\$66,902.55 as interest for late payment into the PHF.

2.3 PETROLEUM REVENUE ALLOCATIONS

The Petroleum Holding Fund (PHF) is a transitory fund created by the PRMA into which all petroleum-related revenues due Ghana are paid before disbursement into various lawful accounts. The law prioritises allocation to GNPC for their equity financing cost and their operations and investments, disbursement into the Annual Budgeting Funding Amount (ABFA) and the Ghana Petroleum Funds (GPFs). The ABFA receives up to 70% of the Benchmark Revenue, while GPF receives a minimum of 30% of the Benchmark Revenue. ABFA is earmarked to support government expenditure in the fiscal year. The GPFs consist of two accounts: the Ghana Heritage Fund (GHF) and the Ghana Stabilisation Fund (GSF) for the respective purposes of saving for the future and cushioning the ABFA in a particular year, if there is a shortfall in petroleum revenues.

In order of priority, GNPC is the first to receive petroleum revenues according to the PRMA. GNPC is entitled to up to 55% of the net cash flow from the Carried and Participating Interests after deducting the equity financing costs. However, the PRMA established that the exact amount to be allocated to GNPC shall be reviewed and approved by parliament every 3 years. Currently, Parliament has approved 30% allocation of the CAPI to GNPC.

The Act further provides that an allocation of not more than 70% of the Revenue should be made to the ABFA, of which parliament approved an allocation of 70% in 2024. The remaining 30% is to be allocated to the GHF and GSF (GPFs) at a ratio of 30:70.

Based on the distribution architecture in the PRMA as outlined above, in 2024, US\$1,358.09 million was distributed to the various accounts. The GNPC received US\$280.59 million while the ABFA received US\$493.25 million. The GPF received a total of US\$584.24 million, out of which US\$408.97 million was disbursed to the GSF, and GHF received US\$175.27 million (see figure 10).

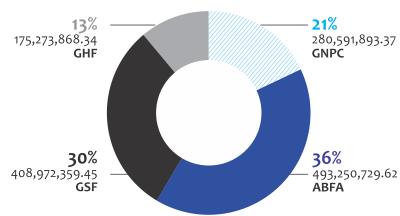


Figure 10: Distribution of 2024 Petroleum receipts

Source: 2024 PIAC Report

500 400 300 200 100 0 GNPC ABFA 2024

Figure 11: Comparison of the petroleum revenues received in 2023 and 2024

Source: 2024 PIAC Report

Cumulatively, GNPC has received US\$ 3,094.08 million, about 27.63% of cumulative total petroleum receipts, from 2011 to 2024 to finance its equity costs and operations. The ABFA, on the other hand, has cumulatively received about US\$4,405.19 million, about 39.35% of cumulative total receipts, for budgetary support and development financing while the GSF received US\$2,593.85 million representing 23.17% and the GHF received US\$1,102.56 million representing 9.85%. Therefore, Ghana has received about US\$11,195.89 million as per the PRMA since 2011.

2.4 ALLOCATIONS TO GHANA NATIONAL PETROLEUM CORPORATION (GNPC)

The PRMA entitles GNPC to a share of petroleum revenues to finance its equity costs. The Corporation is further allowed up to 55% of the balance of the Net Carried and Participation Interest (CAPI) for their operations. Parliament approves the actual percentage to be received as Net CAPI by GNPC, which is reviewed every three years. The current rate approved by Parliament for GNPC is 30% of Net CAPI. In 2024, GNPC received a total of US\$280.59 million, made of equity financing cost (30% of Net CAPI). GNPC's receipts for 2024 was 12.05% higher than its budget allocation for the year and 14.25% higher than its allocation in 2023 (see figure 11).

2.5 ALLOCATIONS TO THE ANNUAL BUDGET FUNDING AMOUNT (ABFA)

The Annual Budget Funding Amount is the proportion of petroleum revenues allocated to the government's annual budget to support development financing. Section 21(4) of the PRMA requires that not less than 70% of the ABFA is utilised for public investment expenditures. The ABFA also allocates funds to the Public Interest and Accountability Committee and the Ghana Infrastructure Investment Fund. The PRMA prescribes that the expenditure of the ABFA should be guided by a medium-term expenditure framework aligned with a long-term national development plan. In the absence of a national development plan, the finance minister is required to prioritise up to four of the sectors outlined in the Act every three years for ABFA expenditures.

The ABFA realised US\$493.25 million from the 2024 total petroleum receipts, being about 14.27% lower than the budgeted allocation for the year despite the higher than projected petroleum revenue in the year. This was, however, 1.5% higher than the receipt for 2023.

The PIAC 2024 Report indicates that the ABFA at the end of 2023 stood at GH ξ 592.57 million. The US ξ 493.25 million distributed to the ABFA was converted at the prevailing FX rate amounting to GH ξ 7.03 billion. Hence, a total of GH ξ 7.61 billion was available for distribution in 2024 due to the additional GH ξ 592.57 million realised from unutilised ABFA balance in 2023.

Out of the GH $\$ 7.61 billion available for spending, a significant 60.49% (GH $\$ 4.61 million) was disbursed for expenditure on Roads, Rail, and other critical infrastructure while about 31.50% (GH $\$ 2.40 million) was disbursed for expenditure on Physical infrastructure and service delivery in health and education. An amount GH $\$ 0.917 million was allocated to PIAC representing 0.12%.

The Report also indicates that "ABFA utilisation under Goods and Services amounted to $GH^{\zeta}_{2.49}$ billion representing 31.60% while the total utilisation for Public Investment Expenditure (Capital Expenditure) was $GH^{\zeta}_{5.20}$ billion representing 68.40%. Therefore, the Government slightly exceeded the statutory Goods and Services and CAPEX ratio of 30:70 respectively."

The Agriculture Priority Area received just 7.89% of the total ABFA which was 0.01% higher than the budgeted allocation for the year and 39.03% higher than the actual disbursement to the Priority Area for 2023. Allocation to the Physical Infrastructure and Service Delivery in Education and Health Priority Area was 31.50% of the utilised ABFA. About 99% of the allocation to this area was used to fund the Free Senior High School Programme under the Education Service Delivery (Goods and Services) for the 2022/2023 and 2023/2024 academic years.

The ABFA disbursed to the Roads, Rail and Other Critical Infrastructure Priority Area was 60.49% of the ABFA utilised for 2024. The total allocations to this priority area were 21.72% higher than the amount disbursed to the Priority Area for 2023.

The Ministry of Finance disbursed an amount of GH¢351.62 million to the District Assemblies Common Fund (DACF) representing 5% of the total ABFA for 2024. This amount is 87.51% of the budgeted allocation to DACF for 2024 and 70.16% of the actual distribution to DACF for 2023 (see figure 12).

While about GH¢0.582 million was allocated to industrialisation in 2023, there was no allocation made for industrialisation in 2024.

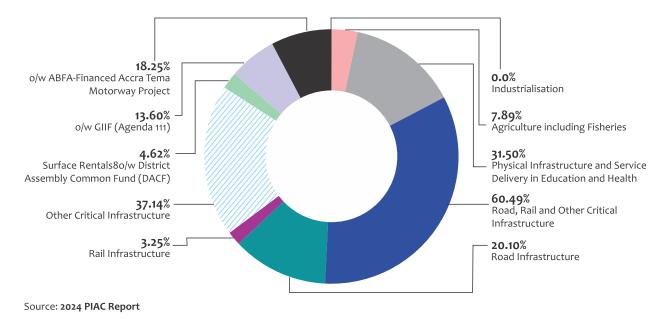


Figure 12: Percentage ABFA Disbursement in 2024

2.6 THE GHANA PETROLEUM FUNDS

The Ghana Petroleum Funds (GPFs) are funds owned by the government of Ghana and comprises GSF and GHF. While the GSF was established to smoothen consumption during periods of ABFA revenue shortfalls, the GHF, on the other hand, is an endowment fund to be used only when the oil and gas resources are depleted. The GHF is mainly an investment instrument to achieve intergenerational equity for utilising the country's petroleum wealth.

The PRMA prescribes the disbursement of the GPF to the GSF and the GHF in the ratio of 70:30. The law also allows the Finance minister to cap the GSF at a parliamentary approved level and withdraw the excess over the cap for contingency spending and into the Sinking Fund for debt servicing. In the determination of the retained balance in the GSF after the cap, the Finance minister is instructed by the Petroleum Revenue Management Regulations, 2019 (L.I. 2381) to ensure the amount is not less than the average ABFA over a three-year period.

IIn 2024, the GPF received US\$584.25 million out of which US\$408.97 million went into the GSF while the GHF received US\$175.27 million. The amount received by the GSF in 2024 was about 176.77% higher than the 2023 amount. Similarly, the GHF receipt in 2024 was about 176.75% higher than the amount receipt in 2023. The receipts into the GPF in 2024 brings the cumulative total receipts to the GPF from 2011 to 2024 to US\$3,696.41 million. Relatedly, the cumulative total disbursement to the GSF and the GHF is US\$2,593.85 million and US\$1,102.56 million respectively.

2.7 INVESTMENTS OF THE GHANA PETROLEUM FUNDS

The Bank of Ghana is responsible for the operational management of the Ghana Petroleum Funds under the terms of the Operation Management Agreement (OMA) with the Minister for Finance. Sections 25 (a) and (c) of the PRMA mandates the Minister for Finance to develop a policy for the investment of the GPF and make decisions in relation to the investment strategy and management of the GPF. Both the GSF and GHF are invested in dollar denominated debt instruments that generate returns as required by the PRMA. The GSF and GHF are meant to be invested into financial instruments for sustaining public expenditure capacity during periods of unanticipated petroleum revenue shortfalls and serve as an endowment to support the development of future generations, respectively within the same period.

According to the PRMA, Parliament is required to assess any limitations on transfers from the Heritage Fund every 15 years and to also transfer a portion of the accrued interest into any additional fund(s) created by the PRMA.

For 2024, the GPFs' net return on investments was US\$45.92 million a 35.78% increase from 2023. The GSF contributed about 18.95% to the net income while the GHF contributed about 81.05% to the net income. While the net income from the GSF increased from US\$4.82 million in 2023 to US\$8.70 million in 2024, that of GHF increased from US\$29.00 million to US\$37.22 million in the same period.

For the period under review, withdrawals from the GSF amounted to US\$411.14 million over the cap (see table 3).

Table 3: Net Accumulated Reserve of the Ghana Petroleum Funds (GPFs)

Fund Name	Allocations Since Inception (Injection)	Realised Income – Nov 2011 to Dec 2024	Total Allocation and Net Income Since Inception	Withdrawals	Closing Value of GPFs
	31-Dec-24	31-Dec-24	31-Dec-24	31-Dec-24	31-Dec-24
	US\$	US\$	US\$	US\$	US\$
Ghana Heritage Fund	1,102,562,868.05	156,297,155.07	1,258,860,023.12	-	1,258,860,023.1 2
Ghana Stabilization Fund	2,593,852,041.0 4	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

Source: BoG, 2024



ENERGY TRANSITION IN GHANA'S UPSTREAM INDUSTRY

3.1 IMPACT OF ENERGY TRANSITION ON THE UPSTREAM INDUSTRY AND THE WAY FORWARD FOR GHANA

The energy transition has introduced so much uncertainty in the global upstream industry, culminating in reduced investments in oil and gas exploration and production. The certainty about future oil demand and supply, resulting in oil price volatility in recent years, has stifled the appetite for investments in oil and gas exploration and production, especially long-term investments.

The uncertainties about the future of the upstream industry have also slowed down research and development in oil and gas exploration and production, thereby limiting technological advancements for optimal oil and gas recovery. This poses a risk of having a greater proportion of the world's hydrocarbon resources, particularly those in deep to ultra-deep waters, getting stranded.

These uncertainties have also made capital for hydrocarbon projects scarce, as most financial and lending institutions are sceptical about the returns on their investments in hydrocarbon projects vis-àvis renewable energy projects.

This, together with stringent regulatory reforms in favour of climate sustainability, has made hydrocarbon projects compete unfavourably with renewable and other environmentally friendly projects for capital, as most oil and gas companies are divesting their portfolios to include climate-friendly projects to mitigate their emissions and remain compliant and in business. This has significantly reduced the portion of capital available for oil and gas exploration and production.

As a result of the dwindling interest in oil and gas exploration and production, some countries, especially those in Africa, have been forced to review their fiscal terms to rekindle investor interest and avoid the stranding of their hydrocarbon assets. Between 2019 and 2023, Nigeria, Angola, Egypt, Ivory Coast, Mozambique, Libya, Algeria, Senegal, Tanzania and the Republic of Congo, among others, have either adjusted their fiscal terms such as royalty and tax or amended their legal and regulatory regimes to remain competitive and attractive to the investor community.

Ghana has had its share of the impacts of the energy transition, as all efforts to attract new investments to the country's upstream industry have proved futile since the energy transition became topical across the globe. Undeniably, other factors would have contributed to Ghana's inability to attract investments to its upstream sector, but the effects of the energy transition cannot be overlooked.

A palpable effect of the energy transition is the outcome of Ghana's maiden and only oil and gas licensing round. Launched in 2018 with the winning bidders announced in July 2019, the negotiations commenced in September 2019 and spanned more than three years without end in sight, owing largely to the unwillingness of the potential contractors to make certain commitments and to agree to provisions of the agreement that, under normal circumstances, would be readily accepted. The behaviour of the potential contractors stemmed from the uncertainty in the upstream industry and the scarcity of capital for hydrocarbon projects orchestrated by the energy transition and the Covid-19 pandemic.

The industry in Ghana also witnessed delays in the execution of the work programmes of the contractors in some of the contract areas because of funding challenges and the high cost of rigs and other equipment, emanating from the ripple effects of the energy transition.

The exit of Aker Energy Ghana Limited from the Deepwater Tano/ Cape Three Points Petroleum Agreement and AGM Petroleum Limited from the South Deep Water Tano (SDWT) Petroleum Agreement in 2023 can be attributed to the impacts of the global energy transition.

The energy transition has therefore led to delays in the development of Ghana's petroleum resources and continues to adversely impact the industry, with the stranding of the country's petroleum resources looming if nothing is done. It threatens the livelihoods of some Ghanaians and has the potential to deny the good people of Ghana the benefits of the country's petroleum endowments.

To avert this imminent calamity and remain attractive to the investor community, Ghana intends to review its fiscal and regulatory regimes, like other African countries, to introduce more flexibility in the country's upstream fiscal regime and deepen the transparency and predictability of the industry. It is believed that this could rekindle investor interest and confidence in Ghana despite the global energy transition agenda.

In recognition of the importance of data and infrastructure in the upstream business, the State also intends to participate in data acquisition programmes to ensure the availability of adequate and high-quality data in the country's sedimentary basins and provide drill-ready blocks to investors to shorten the time between exploration and production. It is also pursuing efforts to augment the country's oil and gas processing/refining, storage, transportation, and transformation infrastructure to maximise the value of the country's petroleum resources and accelerate oil and gas exploration and production. These interventions will not only sustain oil and gas exploration and production but will also aid in attracting new investments to the country.

Infrastructure-led exploration is also being pursued as a strategy to immediately respond to the country's declining petroleum reserves and production. This approach allows contractors with producing assets to undertake exploration within their development and production areas and tie-back commercial discoveries to their existing production facilities without signing a new petroleum agreement for the additional activities.

In relation to this, the State will also ensure the sustenance of the current producing assets through the extension of the validity period of the petroleum agreements covering the producing assets, depending on the amount of recoverable reserves remaining in these contract areas.

The State also encourages infrastructure sharing and hub-based development to foster and accelerate the development of marginal fields or discoveries that are not economical on a standalone basis.

The foregoing and several other interventions are being pursued to attract new investments and increase the country's oil and gas exploration and production. The State is also insisting on sustainable practices in its quest to explore and exploit its petroleum resources to safeguard the environment while ensuring the full benefits of the country's petroleum resources are realised.

3.2 ENERGY TRANSITION AND GLOBAL PERSPECTIVE ON GAS

The attainment of the energy transition goals depends on several factors, including the rate of development of renewable energy and other clean energy sources, the cost of renewable energy, the rate of development and cost of energy storage technologies, among others.

While renewable energy generation is growing globally, it is still limited by its intermittency and high cost of generation, the high cost of energy storage technologies and the slow pace of development of such technologies to curb the intermittency.

Apparently, renewable energy alone cannot meet the world's energy needs in the short to medium term, thereby making natural gas very much part of the energy transition process. Globally acclaimed as the transition fuel because of its reduced emission levels and ability to provide a reliable and scalable source of energy for power generation and industrial processes, natural gas has the potential to provide the world's energy needs, drive the global energy transition and mitigate the impact of greenhouse gas emissions on the climate. Natural gas will catalyse the global energy transition, given the high energy requirements for industrial processes to manufacture the clean energy infrastructure, including batteries, which renewable energy alone cannot provide.

Given its prospects, the global demand for gas is projected to continue to increase until 2040, even in faster decarbonization scenarios, as natural gas is needed to meet energy demands and provide a stable energy supply. Its demand beyond 2040, however, depends on various factors, including the pace of technological advancements in renewable energy and energy storage, as well as policy decisions.

This notwithstanding, natural gas could still be in high demand in the long-term because of the well-established infrastructure for its extraction, transportation and distribution in many regions across the world. This gives it an advantage over renewable energy, as integrating natural gas into the energy mix will be easier and more cost-effective than new renewable energy projects. Presently, the dominance of natural gas infrastructure accounts for its wide usage in residential heating to electricity generation.

Natural gas will continue to find uses in the petrochemical industry, as this industry will remain an important supplier of parts for the manufacturing of solar panels, wind turbines, batteries, and electric vehicles, among others.

It will also find uses in transportation and other sectors of the global economy since its derivative, hydrogen, is a highly sought-after fuel in the energy transition agenda to help decarbonise the transportation and other sectors.

In Ghana, natural gas accounts for almost 70% of the country's energy mix and will continue to play a leading role until renewable energy and other clean energy sources are scaled up and can meet the country's energy demands. Taking cognisance of this, concerted efforts are being made to augment the gas processing and transportation infrastructure as well as gas production from the country's producing fields.

Ghana's reliance on gas for power generation while gradually scaling up renewable energy and other clean energies is part of the country's strategy under the National Energy Transition Framework to decarbonise the economy and ensure an affordable and reliable supply of energy to all its citizens.



UPSTREAM LEGAL

4.1 TULLOW TAX DISPUTE WITH GHANA REVENUE AUTHORITY

In 2024, Tullow Oil, instituted an action against Ghana at the International Chamber of Commerce (ICC), to prevent a USD320 million Branch Profit Remittance Tax (BPRT) assessment on it by Ghana Revenue Authority (GRA), contending that the assessment was in breach of the tax stability provisions in the petroleum agreements entered into, that is, the 2004 West Cape Three Points petroleum Agreement and the 2006 Deepwater Tano Petroleum Agreement. The Tribunal ruled in Tullow's favour, ruling that the BPRT did not apply to Tullow's operations under its petroleum agreements. Thus, Tullow was not liable to pay the USD320 million BPRT assessment and further, would not be liable to any such future assessments in respect of its operations under the petroleum agreements.

4.1.1 Background

On 24th December 2024, the International Chamber of Commerce (ICC) gave its decision in respect of a tax dispute between Tullow Ghana Limited (TGL), the Claimant, and the Republic of Ghana, the Respondent, in respect of the liability of the Claimant to pay Branch Profits Tax (BPT) as assessed by the Ghana Revenue Authority (GRA) for the taxation years, 2018, 2019 and 2021.³

The issue arose out of two petroleum agreements. The first was that executed on 22nd July 2004 between the Respondent, its national oil company, Ghana National Petroleum Corporation (GNPC), Kosmos Energy Ghana and the EO Group in respect of the West Cape Three Points (WCTP) contract area. This agreement was ratified by Parliament on 13th July 2004 in accordance with Article 268 of Ghana's constitution.

The second related to the agreement executed on 10th March 2006 between the Respondent, GNPC, Kosmos Energy and Sabre Oil and Gas in respect of the Deepwater Tano (DWT) Contract area. This agreement was ratified by Parliament on 19th July 2006.

Some discoveries were identified to be straddling the two contract areas, in respect of which a Unitisation and Unit Operating Agreement was signed on 13th July 2009. The thrust of the issue that arose for determination before the ICC was that Ghana's imposition of the BPT on the Claimant from 2018 to 2021, infringed protections accorded to the Claimant under the two named petroleum agreements.

After failing to settle the matter domestically, Tullow Ghana filed a request for arbitration with the Secretariat of the ICC on 5th October 2021. Arbitration proceedings began in 2023, with the final hearing held in London on June 25, 2024 leading to the verdict in December, 2024.

4.1.2 Issues in Contention

The main issues in contention which had to be resolved by the arbitral Tribunal were whether the assessments breached article 12.1 of the petroleum agreements, which protected the Claimant from the imposition of certain taxes and further, whether they breached the stabilization clause in Article 26.2 which provides fiscal stability of the contract.

4.1.3 Relevant Contractual Provisions

The dispute primarily concerned the construction of Article 12 of the DWT as well as WCTP petroleum agreements.⁴

Article 12

Article 12 of the DWT petroleum agreement provides:

12.1 No tax, duty, fee or any other impost shall be imposed by the State or any political subdivision on the Contractor, its Subcontractors or its Affiliates in respect of activities related to Petroleum Operations and to the sale and export of Petroleum other than as provided in this Article.

³ Final Award In the Matter of an Arbitration under the Rules of Arbitration of the International Chamber of Commerce; ICC Arbitration Between 26579/AB/CPB Between Tullow Ghana Limited (Claimant) and the Republic of Ghana; Page 15, Par 50

⁴Page 18, para 70

- 12.2 Contractor shall be subject to the following:
- (ii.) Income Tax in accordance with the Petroleum Income tax Law 1987 (PNDCL 188) levied at the rate of thirty-five percent (35%) as stipulated in the Petroleum Income Tax Law, 1987, PNDCL 188. Where a new income tax rate comes into force as a result of the promulgation of a new Petroleum Income Tax law currently before Cabinet, Contractor shall have the option of either applying the new income tax rate to this Agreement or remaining under the Petroleum Income Tax Law, 1987 PNDC Law 188;

Article 12 of the WCTP Petroleum agreement is similarly worded and states:

- 12.1 No tax, duty, fee or any other impost shall be imposed by the State or any political subdivision on the Contractor, its Subcontractors or its Affiliates in respect of activities related to Petroleum Operations and to the sale and export of Petroleum other than as provided in this Article.
- 12.2 Contractor shall be subject to the following:
- (ii) Income Tax at the rate of thirty-five percent (35%), calculated in accordance with the Petroleum Income Tax Law 1987 (PNDCL 188) or at such lower rate as may be applicable under amended Petroleum Income Tax Law;

In summary, Article 12.2 (ii) in the petroleum agreements provide that income tax shall be imposed at a rate of 35% and calculated in accordance with the PITL or in respect of the WCTP petroleum agreement, at any lower rate applicable under an amended PITL whilst in the case of the DWT petroleum agreement, at any rate applicable under an amended PITL at the option of the Claimant.

Both agreements define "petroleum operations" as:

All activities both in and outside Ghana, relating to the Exploration for, Appraisal, Development, Production, handling and transportation of Petroleum contemplated under this Agreement and includes Exploration Operations, Development Operations and Production Operations and all activities in connection therewith.

Article 26

Both agreements – the DWT and WCTP Petroleum agreements – have stabilization clauses contained therein in Articles 26.2 and 26.3, in identical terms.

Article 26.2 of the Agreements contain a freezing stabilization clause, which states:

The State, its Departments and agencies, shall support this agreement and shall take no action which prevents or impedes the due exercise and performance of rights and obligations of the Parties hereunder. As of the effective date of this Agreement and throughout its term, the State guarantees Contractor the stability of the terms and conditions of this Agreement as well as the fiscal and contractual framework hereof specifically including those terms and conditions and that framework that are based upon or subject to the provisions of the laws and regulations of Ghana (and any interpretations thereof) including, without limitation, the Petroleum Income Tax Law, the Petroleum Law, the GNPC Law and those other laws, regulations and decrees that are applicable thereto.

Article 26.3 of the Agreements contain an economic equilibrium clause which states,

The Agreement and the rights and obligations specified herein may not be modified, altered, or supplemented except upon the execution and delivery of a written agreement executed by the Parties. Any legislative or administrative act of the State or any of its agencies or subdivisions which purports to vary any such right or obligation shall, to the extent sought to be applied to this Agreement, constitute a breach of this Agreement by the State; provided however, if the Petroleum (Exploration and Production) Law, 1984 (PNDCL 84) is amended or replaced (superseded), Contractor shall be entitled to enjoy and this Agreement (and any new petroleum agreement referred to herein) shall be deemed to include (or include – as applicable) the terms and conditions in such agreement or replacement law that favourably affect the rights and/or obligations of the Contractor under this Agreement

Article 12.12 of the WCTP Agreement contained an additional stabilization clause, couched as; "Contractor shall be entitled to economic and fiscal stability according to the rights and benefits as defined in this Agreement." This Article is however not included in the DWT petroleum agreement.

4.1.4 Claimant's Contention

The Claimant argued that it had contractual protections. Tullow contended that the assessments violated Articles 12.1 and 26.2 of the petroleum agreements, which basically protected the Claimant from the imposition of certain taxes, including that being imposed. Further, it was the Claimant's position that the Development Plan was "based on assumptions as to the tax costs that the contractors, including TGL, would incur in connection with income earned from their Petroleum Operations and the sale and export of petroleum relating to the Jubilee Field." The Claimant submitted that the Development Plan was "premised on the contractual protections in Articles 12, 26.2 and 26.3 of the Petroleum Agreements, and so assumed that the only applicable income tax would be income tax charged pursuant to the [Petroleum Income Tax Law 1987] (PNDCL 188)] (PITL 1987)."

In summary, Article 12.2(ii) in the petroleum agreements provides that income tax is to be imposed at the rate of 35% and calculated in accordance with the Petroleum Income Tax Law or in the case of the WCTP petroleum agreement, at any lower rate applicable under an amended Petroleum Income Tax Law.⁸ In the case of the DWT petroleum agreement, it is worded as at any rate applicable under an amended Petroleum Income Tax Law, at the option of the Claimant.

4.1.5 Relief Claimed by Claimant

The Claimant requested the Tribunal:

- a. Declare that the BPT assessment in whole or, alternatively in part, constituted a breach by the Respondent of Article 12 and/or Article 26.2 of the petroleum agreements.
- b. Order the Respondent to indemnify and/or otherwise pay a monetary award to the Claimant in respect of any amount the Claimant was compelled to pay pursuant to the BPT assessment, and any losses or costs incurred as a result of any action taken to enforce any such assessment, plus interest on any such payments made, or losses at a rate to be determined by the Tribunal.
- c. Dismiss the Counterclaim of the Respondent.
- d. Order the Respondent to pay all the costs and expenses of the arbitration, including the fees and expenses of its counsel, witnesses and experts, Tribunal and any experts appointed by the Tribunal, the ICC's fees and expenses and any other costs incurred by the Claimant.
- e. Order such further reliefs as the Tribunal may deem fit.9

4.1.6 Respondent's Response

The Respondent requested that the Tribunal:

- a. Declare that the Tribunal lacked jurisdiction to determine the Claimant's claims.
- b. In the alternative, order each of the Claimant's claims dismissed.
- c. Order the Claimant pay all costs and expenses of the arbitration including the fees and expenses of the counsel of the Respondent, Tribunal and the ICC.

⁵ Page 20 Par 77-78

⁶Claimant's Memorial, 26 August 2022; also see Page 18 par 69 of Final Award

[₹]lbid;

⁸ Page 19, Par 74

[°]Claimant's Post Hearing Brief at 71; confirmed in Claimant's reply submissions on Computational issue, 11th March 2024 at 36

4.1.7 Decision of the Tribunal

The Tribunal made the following declarations, directions and orders:

- a. Declared that the BPT assessments in whole, constituted a breach by the Respondent of Article 12 and 26.2 of the petroleum agreements.
- b. Ordered the Respondent to indemnify the Claimant in respect of any amount the Claimant was compelled to pay pursuant to the BPT assessments (including amounts by way of interest) and any costs or losses incurred as a result of any action taken to enforce any such assessment, plus interest on any such payments made, costs or losses; such interest to commence from the date the payment was made or the costs or losses were incurred and run until the obligation of indemnity was performed, and such interest was to be at a rate of 5% per annum simple interest.
- c. Dismissed the Respondent's counterclaim.
- d. Ordered the Respondent to pay costs and expenses relating to the arbitration, being GBP 1,946, 589.44 and USD\$ 294,228.72 in respect of the Claimant's legal costs and other costs of arbitration and USD\$ 574,000 in respect of the Claimant's deposit in respect of fees of the Tribunal and ICC; interest on the amounts at a rate of 5% per annum simple interest from the date of the award to the date of payment.
- e. Rejected all other requests and claims. 10

4.1.8 Reasoning of the Tribunal

The ICC ruled that the BPRT assessment did not apply to the operations of Tullow under the petroleum agreements. The Tribunal's position was that BPRT did not fall under the specific tax regime encapsulated in Tullow's petroleum agreements. The Tribunal found that the BPRT fell outside the tax regime provided in the petroleum agreements. Article 12.1 noted that no "tax, duty, fee or any other impost" other than as provided under that Article was to be imposed upon the Claimant. Article 12.2 noted the tax to be imposed and BPRT was not mentioned and as such was ousted under the petroleum agreement. This was further backed by Article 26.1 of the Agreement which provided for a freezing stabilization clause which basically prevented the government from making any changes to its laws which would adversely affect the Claimant. As such, bound by the stabilization clauses, the government could not purport to later introduce any new taxes to impose upon Tullow and so to attempt to do so, would be a breach of the petroleum agreements.

4.1.9 Conclusion

As a result of the decision, Tullow was not liable to pay the \$320 million BPT assessment, nor was it liable to pay any future BPT liabilities in respect of those agreements. This represented a significant victory for Tullow and its share price soared by 14% to 25 pence. Referring to the matter in its 2024 Full Year Report, Tullow phrased it thus: "Successful resolution of the Ghana Branch Profits Remittance Tax (BPRT) arbitration, which removed a potential \$320 million liability and endorses the sanctity of our contracts." 12

In the Western press, The BPRT demand was portrayed as a 'shake down' by the government of Ghana in order to unfairly extricate funds from international companies. Commenting on this, World Oil stated; "Ghana handed back-tax demands to some of the biggest companies operating there, including MTN Group Ltd., Goldfields Ltd. and Kosmos Energy Ltd., in recent years. The country was seeking additional revenue after losing access to international capital markets because of its ballooning debt and loan-service costs." ¹³

¹⁰ Page 141, par 600

[&]quot;Norvan Reports, "Tullow Shares Gain 14% on \$320 million Ghana Tax Arbitration case Win" (norvan Reports, 2025 <"https://norvanreports.com/tullow-shares-gain-14-on-320-million-ghana-tax-arbitration-case-win/> accessed 20 April 2025

¹² Tullow Oil "Tullow Oil PLC – 2024 Full Year Results" (Tullow Oil, 2025) https://www.tullowoil.com/application/files/4417/4288/4975/Tullow_Oil_Plc__2024_FY_Report_-"_FINAL.pdf#:~:text=In%20January%202025%20we%20successfully%20resolved%20our,removed%20a%20material%20overhang%20from%20our%20business." Accessed 20 April 2025

¹³ Paul Burkhardt "Tullow Gains Following Legal Victory in \$320 million Ghana Tax Case" (World Oil, 2025) https://www.worldoil.com/news/2025/1/3/tullow-gains-following-legal-victory-in-320-million-ghana-tax-case/ accessed 24 April 2025

Ghana risks causing injury to its reputation as adhering to the doctrine of "pacta sunt servanda" that is respecting the sanctity of contracts. In an era where the Western media is particularly rearing to always paint a picture of the country as a rogue nation when it appears that demands are placed on IOCs which are misplaced, Ghana needs to pay particular attention to that in order to safeguard the reputation of, and investments into its industry.

4.2 ARBITRAL DECISION - ENI GHANA EXPLORATION AND PRODUCTION LIMITED AND VITOL UPSTREAM GHANA LIMITED v. THE REPUBLIC OF GHANA AND GHANA NATIONAL PETROLEUM CORPORATION

4.2.1 Introduction

On 8th July 2024, the arbitral tribunal of the Stockholm Chamber of Commerce rendered a decision in the case of ENI Ghana Exploration and Production Limited and Vitol Upstream Ghana Ltd v Republic of Ghana and Ghana National Petroleum Corporation. ENI Ghana Exploration and Production Limited and Vitol Upstream Ghana Ltd were "the Claimants" in this case, with the Republic of Ghana and its national oil company, Ghana National Petroleum Corporation (GNPC), being the Respondents. The Tribunal's jurisdiction was triggered on the basis of Article 24 of the petroleum agreement between the parties which referred such dispute to be settled under international arbitration "under the auspices of the Arbitration Institute of the Stockholm Chamber of Commerce, Stockholm, Sweden." 14

4.2.2 Background to the Case

Springfield Exploration and Production Ltd., GNPC and its subsidiary, Explorco entered into a petroleum agreement with the Government of Ghana, effective 26th July 2016, in respect of the West Cape Three Points Block 2 ("WCTP 2") contract area. Springfield is the operator of the block with a participating interest of 84%, and GNPC and Explorco hold the remaining interest.

ENI Ghana Exploration and Production Ltd. and Vitol Upstream Ghana Ltd. are the contractor of the Offshore Cape Three Points ("OCTP") petroleum agreement which became effective on 5th May 2008, with ENI being the Operator.

In March 2018, Springfield wrote to the Minister for Energy indicating that per its analysis, the Sankofa Field in the OCTP contract area, extended into its WCTP 2 Contract area and requested the Minister to direct the parties in both contract areas, to commence unitization discussions.

Subsequent to Springfield's letter, the Ministry requested GNPC to furnish it with an independent opinion on the veracity or otherwise of Springfield's claim. GNPC, by a letter dated 5th June 2018, with an accompanying technical report, opined that based on interpretation of seismic data, the Sankofa Field extended into the WCTP-2 Contract area. Based on this opinion, and to ensure that there was ample evidence to justify unitization, the Ministry advised Springfield to drill their side of the reservoir to confirm the seismic data interpretations.

This resulted in the Afina-1X Cenomanian discovery in the WCTP2 contract area. Given the identical reservoir and fluid properties between the Afina Cenomanian discovery and the Sankofa Cenomanian reservoir, per Springfield's assessment, it reiterated the request for unitisation of the Afina discovery and the Sankofa field. The Ministry, thereafter, referred the matter to the Petroleum Commission for further technical evaluation. The Commission, after engaging both Eni and Springfield and conducting an independent assessment of the parties' positions, suggested that the Afina-1X Cenomanian discovery and the Sankofa Cenomanian accumulation could be one and the same and advised the Minister to direct the parties to hold pre-unitisation discussions, among others.

. .

¹⁴ Article 24.8 of the Petroleum Agreement

The Ministry, after carefully studying all the submissions, directed Eni and Springfield in a letter dated 9th April, 2020 to undertake the following:

- Exchange relevant data to establish the structural extent and distribution of the petroleum between the two Contract Areas; and
- Within 30 days from the date of this letter begin the process leading to the unitization or otherwise of the Afina and Sankofa fields and furnish the Ministry with a draft unitization and unit operating agreement for review and approval within 120 days of the date of this letter.

However, Springfield and Eni failed to adhere to the Ministerial directives, disagreeing on various things, leading to a suspension of the directives on 27th July, 2020, and the imposition of new directives on 19th August, 2020, requiring Springfield and Eni to:

- Execute a Confidentiality Agreement (CA) and exchange data by 26th August 2020;
- Complete each party's respective analysis of the data by 2nd September, 2020; and
- Submit a joint report on their respective interest to the Minister by 18th September, 2020.

Again, the Minister's second directives were not complied with and on 14th October, 2020, the Minister imposed terms and conditions on Eni and Springfield to unitise the Afina-1X discovery and the Sankofa field, among others.

ENI and Vitol wrote to the Ministry of Energy questioning the basis for the imposition of the terms and conditions and to a large extent, rejecting them. The Claimants requested the Ministry to withdraw the October directive on the ground that the relevant regulations had not been followed and further, they had not received data showing that the area was ripe for unitization.¹⁵

On 6th November 2020, the Ministry of Energy sent a letter to ENI stating that compliance with the terms and conditions in the Ministry of Energy's letter dated 14th October 2020 was "non-negotiable."

On 4th December 2020, ENI and Vitol sent a Notice of Dispute to the Republic of Ghana, via the Minister for Energy, and later provided GNPC with a Dispute Notice pursuant to Article 24.1 of their petroleum agreement in respect of the Offshore Cape Three Points Area.

By a Notice of Arbitration dated 16th August 2021, ENI Ghana Exploration and Production Limited ("ENI")¹⁶ and Vitol Upstream Ghana Limited ("Vitol")¹⁷ brought an action before the Stockholm Chamber of Commerce ("SCC") against the Republic of Ghana and GNPC requesting the Tribunal to among others, "order that the Respondents take no further action to implement the purported unitisation of the Sankofa Field and Afina Discovery..."

The Tribunal noted that it was empowered to rule over a dispute "in relation to or in connection with or arising out of" the petroleum agreement. It thus noted that its mandate extended to "determining whether Ghana breached the Petroleum Agreement by the manner in which it exercised its unitization powers under Ghanaian law." It noted that in other words, it was only through the prism of a possible contract violation that the Tribunal could review the State's compliance with unitization rules. 20

4.2.3 Decision of the Tribunal

On 8th July 2024, the Tribunal declared/ordered that:

i. The "Republic of Ghana breached the Petroleum Agreement by issuing the Unitisation Directives in the circumstances in which they were issued."²¹

¹⁵ Page 112, Par 386

¹⁶ Eni Ghana Exploration and Production Limited, Bradley Tower Building, William Tubman Road, Ridge, PMB KA 185 – Accra, Ghana

¹⁷ Vitol Upstream Ghana Limited; Grand Oyeeman Building, Liberation Road, 5th Floor, Airport Commercial Area, KIA 9448 – Accra, Ghana

¹⁸ Page 95, par 333

¹⁹ Ibid

²⁰ Ibid

²¹ Page 144, Par 489

- ii. Each Party bear its own costs:
- iii. Ghana pay Eni Ghana Exploration and Production Limited and Vitol Upstream Ghana Limited EUR 189,900 for the costs of the arbitration and SCC.
- Dismissed all other requests for relief. iv.

4.2.4.1 Rationale for the Decision of the Tribunal

The Tribunal noted that the statutory trigger for unitization had not been satisfied, the imposition of the unitization terms was unlawful, and the determination of the tract participation was arbitrary.²²

4.2.4.1.1 Statutory Trigger for Unitization Had not Been Satisfied

The conditions required under Section 34 of the Petroleum (Exploration and Production) Act, 2016 (Act 919) and Regulation 50 of the Petroleum (Exploration and Production) (General) Regulations, 2018 (L.I. 2359) had not been satisfied.

The Tribunal noted that Section 34 (Coordination of Petroleum Activities and Unitization) provides the principles for the operation of unitization by virtue of Ghanaian law.²³ It noted that the provision "sets out the scenario under which unitization may proceed..."²⁴ Section 34(1) of the Petroleum (Exploration and Production) Act states as follows:

Where an accumulation of petroleum extends beyond the boundaries of one contract area into one or more other contract areas, the Minister in consultation with the Commission may, for the purpose of ensuring optimum recovery of petroleum from the accumulation of petroleum, direct the relevant contractors, to enter into an agreement to develop and produce the accumulation of petroleum as a single unit

The Tribunal noted that, "The sole substantive criterion for unitisation that the law provides is therefore the existence of a straddling accumulation of petroleum, the position that Ghana has consistently maintained throughout, including in its past unitisation of the Jubilee field."25 The Tribunal noted that, "Thus, for Section 34(1) to be triggered, there must exist a single accumulation of petroleum straddling two or more contract areas."26

The Tribunal came to the conclusion that, "On the basis of the evidence...the MoE did not determine the existence of a single accumulation within the meaning of Section 34(1) of the Petroleum Act prior to commencing the process of unitisation."27 Thus, the Tribunal found that the Ministry's decision to require ENI and Springfield to furnish it with a draft unitisation and unit operating agreement was made at a time when the Ministry's discretion under Section 34 of the Petroleum Agreement had not been triggered.

4.2.4.1.2 The imposition of the unitization terms was unlawful

The Tribunal noted that there were "several procedural and substantive shortcomings" to the Ministry's decision to impose the unitization terms through the October and November directives.

The Tribunal noted that Regulation 50 of the Petroleum (General) Regulations, aim to "give effect to Section 34 of the Petroleum Act"29 and that Subsection (4) and (5) provide time limits within which contractors must submit to the Ministry a draft unitization agreement or an agreement to coordinate and develop separate petroleum accumulations. Regulation 50(4) and (5) state:

²² Page 103-104, par 359

²³ Page 38, par 129

²⁴ Ibid, par 130

²⁵ Page 81, par 282

²⁶ Page 104, par 360

²⁷ Page 111, par 384

²⁸ Page 112, par 387 29 Page 39, par 135

³⁰ Ibid, par 137

- (4) The relevant contractors shall submit to the Minister a draft unitisation and unit operating agreement or an agreement to coordinate and develop separate petroleum accumulations based on the model agreement described in subregulation (1) within six months after the finalisation of appraisal of the petroleum accumulation.
- (5) The Minister may approve the agreement referred to in subregulation (4) at the same time as the time for approval of the initial development plan for the area or at any other time as determined by the Minister.

The Tribunal noted that the 120 day time limit prescribed in the April directive for the provision of a draft UUOA was inadequate. The expert witness for the Respondents noted though that from his experience, 120 days was a short time for the execution of a UUOA and a shorter duration than expected was not aligned with industry practice.³¹ Thus, the Tribunal noted that apart from lacking substantive basis, the time limit for the provision of a draft UUOA was improper and could not justify the imposition of the October and November directives.³²

Secondly, the decision to react to the Claimants' alleged failure to cooperate with Springfield by imposing unitization terms was deemed as not being in conformity with the legal framework as no straddling petroleum accumulation had been established.³³ The Tribunal noted that the only substantive basis on which the October directive relied was a 2020 GNPC Report, which provided no ground to positively conclude on the presence of a single accumulation as understood under Section 34 of the Petroleum Act.³⁴

Further to that, the Tribunal noted that although the October directive invoked the 2020 GNPC Report to impose unitization, the record showed that the Ministry had made that decision to impose unitization well before it commissioned the GNPC Report³⁵ and "the 2020 GNPC Report did not form a substantive basis for the MOE's decision to impose unitization."³⁶

The Tribunal noted that thirdly, it was not disputed that the unitization measures were imposed when Springfield had not conducted an appraisal of its discovery, which would have determined the commerciality of the discovery. The Tribunal referred to Regulation 50(4) of the Petroleum (General) Regulations which envisages the possibility of entering into a UUOA only after the completion of an appraisal.³⁷ Further, the Tribunal took note of the fact that pursuant to Section 25 of the Petroleum (Exploration and Production) Act, it requires that an appraisal take place after the notification of a petroleum discovery within a period stipulated in the agreement. Under Springfield's agreement, it had two (2) years to complete the appraisal, that is by November 2021.³⁸

The Tribunal asserted that instead of mandating Springfield to comply with the requirement, the Ministry appeared to have rather permitted it to bypass that obligation and rather shifted it onto the Claimants. The Tribunal concluded that, "Such result defies commercial logic of the distribution of risks under the Petroleum Agreement and finds no support in the applicable regulations." Regulation 50(4) expressly envisaged an appraisal to precede the conclusion of a UUOA. The Tribunal asserted that, "The Respondents have not substantiated why the MoE decided to reverse the ordinary sequence envisaged by the Petroleum Act by imposing unitisation prior to requiring Springfield to appraise the Afina discovery under Section 25 of the Petroleum Act."

The Tribunal concluded by noting that "the imposition of the unitization terms by the October and November directives violated important procedural and substantive rules applicable under the Petroleum Act and the Petroleum Regulations."⁴²

32 Ibid, Par 389

³¹ Ibid

³³ Page 113, Par 390

³⁴ Ibid, Par 391

³⁵ Ibid, Par 392

³⁶ Ibid, Par 394

³⁷ Page116, par 403

Page116, par 40Ibid, Par 404

³⁹ Ibid, Par 405

⁴⁰ Ibid, Par 406

⁴¹ Ibid, Par 407

⁴² Ibid, Par 409

4.2.4.1.3 The Determination of the Initial Tract Participation was arbitrary

The Tribunal noted that it was inappropriate for the Ministry to determine the tract participations solely based on the 2020 GNPC Report without calling for an independent analysis, and that GNPC in fact stood to benefit directly from affording a higher proportion to the Afina partners.⁴³ The Tribunal thus noted that the initial tract participations determined by the Ministry lacked justification.⁴⁴

The Tribunal noted that the Ministry's unsubstantiated choice increased the tract participation of the Afina partners to the detriment of the rights of the Claimants under the petroleum agreement. 45

The Tribunal noted in conclusion that overall, the unitization measures adopted by Ghana suffered multiple substantive and procedural flaws. 46

4.2.5 Effect of the Decision of the Tribunal

Consequent upon the decision of the Tribunal, the Minister for the rebranded Ministry of Energy and Green Transition, by a letter dated 25th February 2025, and addressed to the Managing Director, ENI Ghana Exploration and Production Ghana Limited; the Country Manager, Vitol Upstream Ghana Ltd. and Springfield Exploration and Production Ghana Limited, headed *Withdrawal of Unitization Directives*, formally communicated the Ministry's decision to withdraw the unitization directives. It, however, noted that, "the withdrawal of the directive is without prejudice to the power of the Minister to issue new directives upon subsequent evidence that such a measure is required for the equitable and efficient development of Ghana's petroleum resources." ⁴⁷

4.2.6 Conclusion

This arbitration delayed the development of the petroleum resources in both contract areas, particularly the WCTP2 contract area, where the contractor waited for about four years for the outcome of the arbitration to appraise the Afina-1X discovery. Eni, on the other hand, was demotivated by the unitisation directives, which probably affected their willingness to invest more in their operations in Ghana.

A more tactical approach encompassing all the technical considerations and international best practices could have saved Ghana the impacts of the arbitration and accelerated the development of the petroleum resources in these contract areas for the benefit of the Ghanaian people.

4.3 AMENDMENTS TO BE MADE TO GHANA'S PETROLEUM REVENE MENAGEMENT ACT, 2011 (ACT 815) AS AMENDED BY THE PETROLEUM REVENUE MANAGEMENT (AMENDED) ACT 2015 (ACT 893)

4.3.1 Introduction

The Government of Ghana has decided to cause amendments to be made to the *Petroleum Revenue Management Act*, 2011 (Act 815) hereinafter referred to as "PRMA" as amended by the Petroleum *Revenue Management (Amendment) Act*, 2015 (Act 893). The Bill which is expected to be passed in 2025 is to provide for the Annual Budget Funding Amount (ABFA) to be used almost solely for infrastructural development. A few amendments have been proposed with the explanation from officials of the Ministry of Finance being to increase the portion of petroleum revenue channelled to the Annual Budget Funding Amount (ABFA), to make more money available for the Big Push – a government

⁴³ Page 121, par 418

⁴⁴ Ibid

⁴⁵ Ibid, par 420

⁴⁶ Page 121, par 421

⁴⁷ Page 2, Letter with Reference Number SCR/KB.6/211/9B dated 25-2-2005, addressed to Managing Director, ENI Ghana Exploration and Production Limited, Country Manager, Vitol Upstream, Springfield Exploration and Production Limited; signed by John Abdulai Jinapor, Minister for Energy and Green Transition, with Attorney General; Chief Director, Director of Petroleum, Director of Legal at the Ministry, Chief Executive Officers of GNPC and Petroleum Commission in copy.

initiative to improve road infrastructure and connectivity across the country. This will take away the 70:30 public investment expenditure to recurrent expenditure ratio currently enshrined in the Act.

4.3.2. Proposed Amendments

There are three main proposed amendments to the existing framework.

4.3.2.1 Section 21 – Use of the Annual Budget Funding Amount

Section 21(a) of the PRMA as amended by the Petroleum Revenue Management (Amendment) Act, 2015 (Act 893) states:

For any financial year,

- (a) A minimum of 70% of the Annual Budget Funding Amount shall be used for public investment expenditure consistent with the long-term national development plan..."
- (b) A maximum of 25% of the amount allocated for public investment expenditure under Paragraph (a) shall be allocated to the Ghana Infrastructure Investment Fund for the purpose of infrastructure development.

Further, in the case of *Benjamin Komla Kpodo and Richard Quashigah v. AG*, the District Assemblies Common Fund (DACF) was added to the recipients of the ABFA, to receive five percent (5%). As the Supreme Court noted, "Total Revenue of Ghana, for purposes of allocation to the District Assemblies Common Fund shall include Petroleum Revenue allotted as Annual Budget Support amount and non-tax revenue paid to Central Government." Commenting on this decision, PIAC noted, "The decision means that for every fiscal year, the Government of Ghana is required to allocate and disburse to the District Assemblies Common Fund five percent (5%) of the ABFA, where any such petroleum funds were so allocated."

Thus, first and foremost, the first proposal for amendment is that the 70:30 ratio between Capital Expenditure and Goods and Services for the utilization of ABFA is proposed to be varied to 95% to Capital Expenditure and 5% to the District Assembly Common Fund. This would be an amendment to the already amended Section 21 of Act 815.

Secondly, the 25% allocation of ABFA to the Ghana Infrastructural Investment Fund (GIIF) is to be discontinued.

Thirdly, the Public Interest and Accountability Committee (PIAC) which has the mandate to "monitor and evaluate compliance with this [Petroleum Revenue Management] Act by government and other relevant institutions..."⁵¹ receives funding under the PRMA as amended. Section 57(c) of the Act as amended, with the title *Funding and Allowances* stipulates that, "Subject to subsection (1), the budget on the annual programme of the Accountability Committee shall be a charge on the Annual Budget Funding Amount for each financial year." Thus, PIAC is funded directly from money from the Annual Budget Funding Amount, that is, a portion of petroleum revenue allocated to the national budget. As such, each year, under the Act, PIAC submits a budget on its annual programme to the Minister for inclusion in the annual national budget."⁵²

Under the proposed amendment, allocation of ABFA to PIAC under Act 893 is to be discontinued. Under the new arrangement, PIAC will be funded from no particular fund but the general government fund. In effect, the source has been relocated to the Consolidated Fund.

Further, the allocation to GNPC has also been varied. Under the PRMA as amended, Section 16(3) states;

For a period not exceeding fifteen years after the commencement of this Act, the cash or barrels of oil equivalent of petroleum ceded to a national oil company shall

 $^{^{48} (}J1/03/2018) [2019] GHASC39 (12 June 2019); 1. Benjamin Komla Kpodo, MP2. Richard Quashigah, MPv. The Attorney-General. And the state of the$

⁴⁹ Public Interest and Accountability Committee, "Semi-Annual Report on the Management of Petroleum Revenues for Year 2020" 27.

⁵⁰ In the case of Benjamin Komla Kpodo v AG, ⁵⁸ the Supreme Court declared that "....Upon a true and proper interpretation of Article 252 Clause 2 of the constitution, neither Parliament nor the Minister responsible for Finance may allocate an amount that is less than five per cent (5%) of the total revenues of Ghana to the District Assemblies Common Fund."

 $^{^{51}\,}Section\,52-Objects\,of\,the\,Accountability\,Committee$

⁵² Section 57(2)

"(a)Not exceed 55% of the net cash flow from the carried and participating interests of the Republic after deducting the equity financing cost..."

Currently, GNPC receives roughly 30% based on this provision. In order to free up more money for the BIG PUSH, it is envisioned that in practice, allocation to GNPC will now be limited to about 15% of the Carried and Participating Interest (CAPI).

4.3.3 Conclusion

These are proposed amendments and it remains to be seen which, if any at all, will actually find its way into law. With respect to the first proposed amendment – the use of the Annual Budget Funding Amount – apart from the disbursement to the DACF, in effect, the entirety of the ABFA will now form part of the Consolidated fund and will be used to finance infrastructure. This is not likely to receive that much pushback or critique and is likely to be viewed as a step in the right direction. In respect of PIAC no longer being funded from the PRMA, this is likely to cause some apprehension – particularly within PIAC - that the independence of the institution will be weakened as it has to be funded through the Ministry of Finance and that any funding allocation subject to the discretion of the Minister for Finance could see PIAC inadequately financed.

In respect of the reduction in funding to GNPC, this is likely to receive some pushback as the argument will be made that the national oil company will be severely hampered by such a cut, coupled with the politics of it that, GNPC is largely viewed as a piggy bank and a source of funding for all sort of projects which need funding.

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DOWNSTREAM SECTOR POLICY REVIEW

5.1 BIOFUEL DEVELOPMENT AND COMMERCIALISATION INITIATIVE

Following the launch of the **National Energy Transition Framework** at **COP 27**, the Ministry of Energy initiated significant steps to meet Ghana's 2030 net-zero targets, with a strong emphasis on promoting biofuel blends as a transitional and greener transportation fuel.

In furtherance of this, the Ministry introduced the **Biofuel Development and Commercialisation (BDC) Initiative**, which aims to integrate biofuels with conventional fuels into biofuel blends as the standard transportation fuel in the country. The BDC initiative is envisioned to establish a well-coordinated value and supply chain system that will assure the supply of at least three billion litres of biofuels to the Ghanaian market by 2035 for blending with conventional fuels. This initiative not only prioritises the environmental sustainability of energy systems to mitigate global warming but is also keen on fostering the socio-economic development of the country.

The Ministry engaged key stakeholders in the petroleum downstream industry to create awareness, solicit inputs and build consensus on the initiative. The cross-sectoral nature of this initiative, however, required a broader scope of stakeholders across relevant sectors of the economy to achieve a more harmonised and coordinated approach to the objectives of the BDC Initiative. This prompted the Ministry to establish an inter-ministerial Memorandum of Understanding (MoU) among the Ministries of Transport; Food and Agriculture; Environment, Science and Technology; Trade and Industry; Finance; and Local Government, Decentralisation and Rural Development. The MoU was signed in June 2024.

Prior to the signing of the MoU, the Ministry conducted a pre-feasibility study as a preliminary assessment of the initiative to examine the viability of the biofuel blending concept before significant resources are invested to realise the intended objectives. Further to this, a Multi-Sectoral Steering Committee was formed to take a deep dive into the proposed pathways outlined in the pre-feasibility study report and develop an action plan that guides the development and commercialisation of biofuels for transportation in the country.

The Committee conducted a detailed feasibility study to determine, among others, the range of possible biofuel blend ratios, biomass and infrastructure development required, and potential GHG emission reduction gains.

A stakeholder forum was organised, convening experts from academia, industry, state institutions and civil society organisations (CSOs), to gather further insights to feed into the feasibility study toward drafting a robust National Biofuel Development and Commercialisation Action Plan.

Consequently, the Action Plan was drafted and submitted to the Ministry of Energy for consideration.

Overview of the Draft Biofuel Development and Commercialisation Action Plan (2025 – 2035)

The Draft Action Plan proposes a phased increase in blending ratios, aiming for a 5% bioethanol and biodiesel shares and a 2% Sustainable Aviation Fuel (SAF) share in the fuel consumption mix by 2035. Achieving this goal will require the construction of twenty-two (22) biorefineries and the sustainable utilisation of over two billion tonnes of biomass, including cassava, soybean, and oil palm.

The Draft Action Plan will serve as a structured roadmap to operationalise the BDC Initiative, outlining three distinct implementation phases:

Phase 1 (2025–2027): Initiate biofuel use by importing blends from established markets, utilising existing fuel infrastructure, enhancing policy and regulations, and investing in outreach and workforce development.

Phase 2 (2027–2030): Expand local production by supporting infrastructure, sustainable feedstock supply, and regulatory approvals for diverse biofuel types, while strengthening coordination with suppliers and users.

Phase 3 (2030–2035): Ensure long-term sustainability by reducing carbon intensity, maximising environmental benefits, and upholding high environmental standards across the supply chain.

The next step is to implement the Low Carbon Fuel Promotion Scheme (LCFPS) to promote the adoption of low-carbon intensive transportation fuels, which include biofuels.

5.2 GNGC ACQUISITION OF GCMC AND THE REVAMPING OF THE COMPANY

The Board of Directors of the Ghana National Gas company (GNGC) in 2022 took a strategic decision to acquire Ghana Cylinder Manufacturing Company Limited (GCMC), a private limited liability company, 100% owned by the Government, which manufactures good quality LPG cylinders. This decision by the board of directors received the approval by the President of Ghana in 2023.

The strategic objective of this acquisition is two-pronged. It is expected to enable GCMC to reposition itself as a key player in the manufacture of gas cylinders, increasing the company's market share. Also, through forward and backwards integration, it will enable Ghana Gas to position itself within the gas supply chain in the downstream.

Ghana Gas will acquire 100% shares of GCMC and maintain GCMC as an autonomous subsidiary, having its own Board and Management. Ghana Gas would have a representation on the board of GCMC.

The acquisition comes in two phases. In phase 1, Ghana Gas will recapitalise GCMC to ensure continuity of operations and further restructure and expand the operations of the company in phase 2, to play a significant role in the gas supply chain, particularly the CRM Programme.

Towards achieving this goal, the government through GNGC is facilitating a **USD 8 million investment** to GCMC to cover the costs of:

- a) retooling GCMC's existing production facility.
- b) purchasing three (3) trucks to transport LPG cylinders and cookstoves.
- c) purchasing raw materials for the manufacturing of LPG cylinders and cookstoves.

Consequently, the Hon. Minister for Energy established a committee to:

- a) ensure value for money on the facility to be raised to attain the goals of the Government.
- b) prepare and submit an investment plan for consideration to the Minister and the Board.

In May 2025, the Committee submitted its report to the Ministry for consideration and necessary action.

5.3 GOLD-FOR-OIL PROGRAMME

In response to unsustainable increases in ex-pump fuel prices and the need to ensure uninterrupted petroleum products supply, the Government introduced the Gold-for-Oil (G4O) programme in 2023 as a temporary intervention. The programme aimed to reduce the impact of the continuous depreciation of the Cedi against the US dollar on pump prices and also to secure affordable fuel for consumers during a period when local supply fell short due to global market disruptions, such as the Russia-Ukraine conflict and post-COVID-19 demand surges, compounded by domestic structural and economic challenges (unavailability of forex to cover cost of import).

Under the G4O programme, the Bulk Oil Storage and Transportation Company Limited (BOST) was designated as the implementing agency, responsible for procuring and selling petroleum products. The Bank of Ghana (BoG) fully underwrote the required foreign exchange (FX), enabling BOST to offer competitive prices to end users.

CBOD observed that the BoG's forex allocations to BIDECs fell from about 40% of bi-weekly forex bids in 2022 to 20–25% in 2023–2024. Forex supply was instead prioritised for BOST to fulfil G4O imports. Consequently, most BIDECs sourced forex from costlier alternatives, placing them at a competitive disadvantage. Moreover, laycan administration by the National Petroleum Authority (NPA), as directed by the Ministry, prioritised BOST cargoes—often at the expense of BIDECs—incurring added costs from demurrage and delayed offloading.

Despite these constraints, BIDECs had to match BOST's G4O product pricing and continue fulfilling their licensing fee obligations, which BOST was exempt from under the current regulatory framework. This uneven playing field created significant financial strain, undermining BIDECs' sustainability.

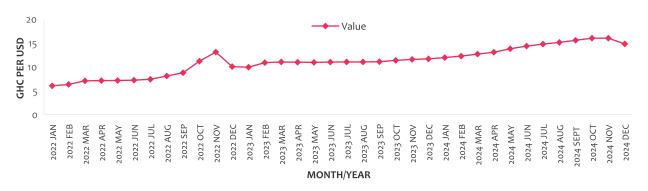
From the government's perspective, the BoG's involvement in fuel trading and financing under G40 exposed the Bank to considerable financial, operational, and forex risk. Cases where BOST imported more fuel than it could sell, quickly resulted in accumulating losses on the BoG's books. Additionally, when the cost of acquiring domestic gold, including associated charges, exceeded the forex value received through barter or sale, the programme's financial sustainability was further threatened. As of 31st December 2024, BOG had committed seed capital amounting to GHS4.69 bn to the G40 programme and recorded a loss of GHS1.82 bn for the financial year ended 31st December 2024, alongside a loss of GHS317 mn in 2023. In view of these losses, the Board of Directors has approved the Bank's withdrawal from the programme and is currently reassessing its role in providing preferential forex rates to the energy sector going forward.

5.3.1 Gold for Oil (G4O) Programme Review by Centre for Environmental Management and Sustainable Energy (CEMSE)

According to the Centre for Environmental Management and Sustainable Energy (CEMSE), the G4O programme as introduced was to achieve two main objectives, thus, ex-pump price stability and exchange rate (USD/Ghc) stability. It reviewed the policy based on its key objectives, profitability of BOST before and after the programme, and transparency. CEMSE, reviewed the G4O programme as follows.

5.3.1.1 Exchange rate stability

Figure 13: Trend Analysis of Monthly Exchange Rate (2022 – 2024)



Source: Bank of Ghana Database portal

From Figure 13, the exchange rate was relatively stable from Jan to Aug 2022, rising gradually from GHS6.01 to GHS8.74 per USD. However, there was a sharp spike in October 2022, hitting GHS13.07 by November — a major depreciation. In 2023, after the G4O policy was introduced, the exchange rate stabilized between GHS10.9 and GHS11.6 — a noticeable flattening compared to the sharp volatility in the last quarter of 2022. However, into 2024, the exchange rate resumed a gradual upward trend, reaching GHS15.98 in October before falling slightly in December. This implies that while G4O with other macroeconomic and other market driven factors contributed to stabilising the rate temporarily, they did not fundamentally stop the depreciation. However, the strong appreciation of the USD by over 20% in 2024 suggests that G4O alone was insufficient to reverse long-term currency decline without broader macroeconomic reforms.

5.3.1.2 Ex-pump prices before and after G4O

Ex-pump prices at the pump were very stable before the Russia-Ukraine conflict, which saw supply disruptions and bullish factors hiking prices of petroleum products on the international market in 2022.

In January 2022, ex-pump prices of petrol ranged from GHS6.65 per liter to GHS6.80 per liter, and diesel prices from GHS6.60/Ltr to GHS6.90/Ltr. However, ex-pump prices for diesel peaked at GHS23.49 per liter and petrol peaked at GHS17.99 per liter which was caused by a drastic depreciation of the Ghana Cedi against the US dollar in October 2022. However, in December 2022, ex-pump prices for petrol dropped to a range from GHS13.00 per liter to GHS13.40 per liter, and diesel drops to a range from GHS15 per liter to GHS16 per liter. Before G40 products got to the market in the 2nd window of January 2023, ex-pump prices for petrol ranged from GHS10.99/Ltr to GHS12/Ltr and diesel ranged from GHS13.99/Ltr to GHS14.60/Ltr. However, when G40 products landed in the market in the 2nd Window of January 2023, prices increased by an average of 7% rising prices especially Diesel to above GHS15/Ltr. Although prices were volatile after the introduction of G40, the ex-pump prices of petrol as at end of December 2024 ranged from GHS14.45/Ltr to GHS15.30/Ltr and Diesel ranged from GHS14.50/Ltr to GHS15.79/Ltr.

An observation of ex-pump prices of diesel and petrol before and after the G4O indicates that G4O and other macroeconomic as well as other market driven factors stabilised prices but comparatively average ex-pump prices before the G4O were cheaper than after the G4O.

5.3.1.3 BOST profitability before and after the G4O

From Figure 14, the performance of BOST in terms of profitability before the G4O was on the surge, a profit before tax net loss of GHS154 million in 2019 to a net profit of GHS424 million in 2022. BOST profit after tax (PAT) grew by about 109% from GHC 163.9 million in 2021 to GHC 342.5 million in 2022. However, after the introduction of G4O PAT declined by about 39% from GHS342.5 million to GHS208 million in 2023. This could be attributed to cost of sale being higher compared to the sales of products by the company in 2023, as indicated in figures 14 and 15.

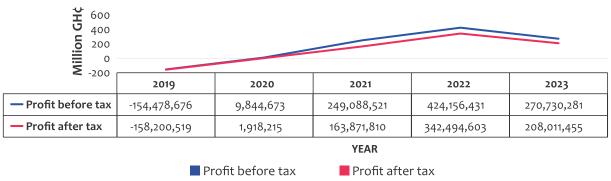
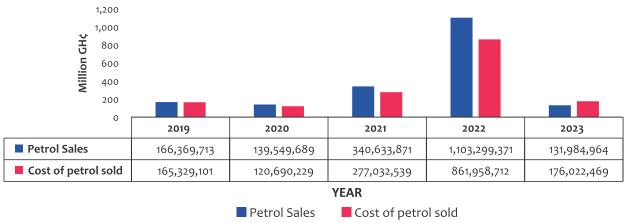


Figure 14: Profit before tax and Profit after tax

Source: **BOST Annual Report**

From figure 15, it is realised that the cost of sales of the company has always been lower compared to revenues from their petrol sales between 2020 and 2022. There was minimal profit margin in the years 2019 and 2020. The year 2021 shows a noticeable increase in the profits with sales slightly higher than the cost. The highest profit margin was recorded in 2022 with a clear difference between the sales and cost of sales. However, after the introduction of G4O in 2023, the cost of sales of petrol was higher than the revenues from sales of petrol. In 2023, cost of sales of petrol was GHS176,022,469 compared to revenue of about GHS131,984,964, implying that the company's commercial operation of petrol realised gross operational loss.

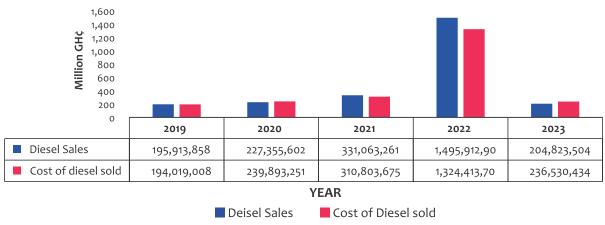
Figure 15: Petrol Sales and Cost of Petrol Sold



Source: **BOST Annual Report**

Figure 16 highlights the profit margins in the diesel market from 2019 to 2023. There was negligible profit in 2019 with sales and cost being almost the same while 2020 recorded no profit with a slight loss in the market. Sales however edged out cost in 2021 showing a growth in sales over cost. In 2022, the highest gross profit margin was recorded within the period with a large gap between revenue and cost of sales. However, sales and cost reduced drastically in 2023 with cost of sales exceeding revenue realised from diesel. The cost of sales for diesel was GHS236,530,434 compared to revenue of GHS204,823,504 in the same year. The implication is that BOST recorded losses in its internal commercial operations after the introduction of G4O in 2023.

Figure 16: Diesel Sales and Cost of Petrol Sold



Source: **BOST Annual Report**

5.3.1.4 Transparency of G40

The Bank of Ghana allocated almost US\$948 million in 2023 and about US\$529 million in the first half of 2024 to BOST to pay for products associated with the G40. However, this expenditure and its source was not disclosed in either the 2023 nor in the 2024 budget. Additionally, the buyer selection of Ghana's gold on the international market and the supplier of refined petroleum products to BOST were undisclosed raising issues of accountability and good corporate governance.

In January 2025, the Ministry of Energy, in collaboration with the Ministry of Finance, initiated a holistic review of the G4O programme's effectiveness. A Committee was established in March to lead this process and submitted its report with recommendations to the Minister forc Energy and Green Transition in May 2025. During the review period, BOST was instructed not to extend existing contracts or enter into new ones under the G4O framework.

5.3.1.5 Next Steps

The Ministry of Energy and Green Transition is preparing a Cabinet Memorandum on a new programme structure to guarantee access to foreign exchange - on a spot basis, and through traditional or bespoke forward rates - for the Bulk Import, Distribution, and Export Companies (BIDECs), refineries, the Electricity Company of Ghana (ECG), and BOST.

5.4 IMPLEMENTATION OF THE NATIONAL LPG PROMOTION PROGRAMME

The Ministry of Energy continued to pursue the implementation of the National LPG Promotion Programme (NLPGPP), which aims at ensuring a minimum of 50% of Ghanaians have access to safe, clean and environmentally friendly LPG for domestic and industrial usage by 2030.

In 2024, sixteen thousand (16,000) LPG cookstoves with accessories were distributed across eleven (11) MMDAs compared to 2023 when 16,000 cookstoves were distributed to seven (7) MMDAs under the Programme. In total, 38,000 cookstoves and accessories have been distributed, since the launch of the National LPG Promotion Programme (NLPGPP) in 2022. It is anticipated that the World Bank's support under their Program-for-Results (*PforR*) module will enable the Ministry to scale up the distribution of cookstoves to benefit some 72,000 households in 2025.

5.5 CYLINDER RECIRCULATION MODEL

The government of Ghana has rolled out the Cylinder Recirculation Model (CRM) to increase LPG penetration at the household level by 50% by the year 2030, which is in line with the Nationally Determined Contributions published in 2021 and the National LPG Promotion programme (NLPGPP). The CRM was launched in September 2023, and this led to the licensing of Petroleum Service Providers (PSPs) who will operate cylinder exchange points in Greater Accra, Greater Kumasi Area and other regions in Ghana. Licensed Cylinder Exchange points are expected to exchange filled cylinders of different sizes from 6kg to 14.5kg with empty cylinders of similar sizes. With the advancement of technology, a GPS-enabled delivery system could be used to optimised delivery. By developing a mobile app, LPG could be purchased online and delivered to the customer using the GPS location. Moreover, automatic shut-off valves, leak detection systems, and pressure regulators systems could also be imbedded into the CRM cylinders to enhance safety.

CRM and New LPG pricing

The CRM introduced and added US\$8o/MT (Cylinder Investment and Distribution Margin) on the Price Build-Up of LPG, through LI2481. The LI2481 specified that US\$36/MT of the US\$8o/MT be allocated for Cylinder Investment while the remaining US\$44/MT be allocated for bottling of cylinders by the Cylinder Bottling Plants. The US\$8o/MT converted into kilograms means that the consumer is paying an additional GHS1.30 per kilogram on the price of LPG. Already, the price build-up of LPG has GHS2.17 per kilogram in the form of tax, levies and margins, and for that matter the consumer currently pays GHS3.47 for each kilogram of LPG bought. Comparing the tax, levies and distribution margins, the LPG consumer pays GHS0.20 higher than Petrol users and GHS0.18 higher than Diesel users, making LPG very expensive cetris paribus. On the market as at 7th April 2025, the average price of LPG was GHS18 per kilogram while the average price of Petrol was about GHS14.20 per liter and Diesel was about GHS15.00 per liter.

The introduction of the US\$80/MT levy, of which US\$36/MT is earmarked for cylinder acquisition by bottling plants, represents a significant cost transfer to consumers. Under this arrangement, consumers would effectively pay more than 5 times the actual cost of a cylinder over its 10-year lifespan. For instance, a consumer purchasing 5kg of LPG monthly would pay between GHS365 and GHS700 for a cylinder currently priced at approximately GHS120. Likewise, a consumer using 14.5kg of LPG monthly would pay no less than GHS900 to the NPA through this levy, despite the market price of a 14.5kg cylinder being around GHS400. This arrangement raises serious concerns about affordability and equity, as it disproportionately burdens end-users and undermines the policy objective of promoting wider LPG adoption, especially among low-income households.

The introduction of the US\$80/MT is to use US\$36/MT of the said amount to invest in cylinder acquisition by the bottling plants. This makes the consumer pay over 300% of the cost of cylinder because the average lifespan of an LPG cylinder is 10 years, consumers will be paying between GHS365 and GHS700 for a 5kg, which is currently sold at GHS120; assuming they purchase 5kg of LPG monthly. Also, a consumer that purchases 14.5kg of LPG monthly will be paying at least GHS900 to NPA for the Cylinder through this imposition when the current market price of a 14.5kg Cylinder is just about GHS400.

The US\$44/MT out of the US\$80/MT will be used to pay the bottling plants which should be critically relooked at because it does not promote competition among bottling companies because margins have been fixed for them by the Authority. Secondly, margins for LPG marketers are charged in Cedis, which makes margins in dollars very disingenuous to the end user.

Revenue made by NPA

The revenue is calculated based on the consumption of LPG from April 2024 to December 2024 (see table 4).

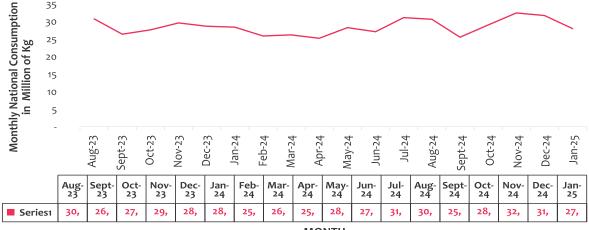
Table 4: CRM and Consumption

Months	Volumes of LPG in metric	Ll2481 Margin (\$80/Mt)	Revenue (USD)
April	25,136	\$8o/Mt	2,010,880
May	28,172	\$8o/Mt	2,253,760
June	27,009	\$8o/Mt	2,160,720
July	31,039	\$80/Mt	2,483,120
August	30,538	\$8o/Mt	2,443,040
September	25,450	\$8o/Mt	2,036,000
October	28,954	\$8o/Mt	2,316,320
November	32,348	\$8o/Mt	2,587,840
December	31,622	\$8o/Mt	2,529,760
TOTAL			20,821,440

Source: Authors compilation

The main objective of the CRM was to increase penetration especially in the Greater Accra and Greater Kumasi areas, later extending to other parts of the country. The other objective is to improve safety in the distribution of LPG cylinders. However, as at the time of publishing this report, there has not been a comprehensive study on the adherence or otherwise of the safety protocols at the various cylinder exchange points. On the other hand, consumption could be assessed based on LPG consumption patterns since the launch of the model. In this regard, we review the trend in consumption of LPG from August, 2023 till January, 2025, to ascertain whether CRM has increased, stagnated or declined LPG consumption (see figure 17).

Figure 17: Monthly National Consumption of LPG in Ghana

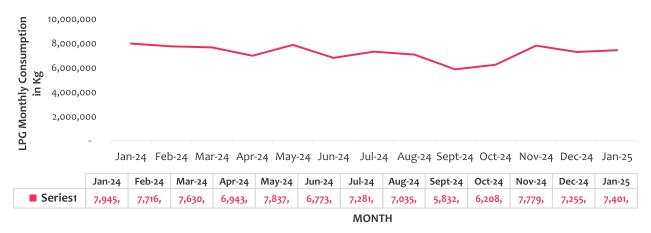


Source: NPA

MONTH

From Figure 18, it is observed that there is volatility in the consumption of LPG with an average month-on-month decline of 0.12% indicating a slight overall decrease. The implication is that CRM has not significantly changed the consumption pattern of LPG in Ghana since its roll-out in September 2023. Although 2024 recorded it's highest monthly consumption of LPG of 32,348,285kg in November, it also recorded it's lowest monthly consumption of 25,136,070 kg in April.

Figure 18: Monthly LPG Consumption in Greater Accra after the Launch of CRM



Source: NPA

From Figure 18, the average month-on-month change was approximately -0.28%, indicating a slight overall decline in consumption over the period. The highest monthly consumption occurred in January 2024 with 7,945,969kg of LPG and the lowest consumption was recorded in September 2024 with 5,832,137kg of LPG. The data shows significant fluctuations, with notable drops in April, June, and September 2024. These fluctuation were largely occasioned by significant spikes in LPG pump prices in April, June, and September.

Figure 19: Yearly Consumption of LPG



Source: NPA

From Figure 19, the data reveals a generally upward trend in LPG consumption from 2019 to 2024, with a notable exception in 2022. The 13.66% total growth over five years suggests increasing reliance on LPG, though the growth hasn't been consistent year-to-year. The Post CRM consumption is still below 2021 consumption data which implies a volatile LPG consumption in Ghana.

Reasons for Volatility in the Consumption of LPG

International Market Price

The Price of LPG is a major determinant of its consumption in Ghana. The 2022 geopolitical crisis as well as the supply disruptions caused by the Russian-Ukraine war increased international market prices of LPG from about US\$700/MT in January to about \$1000/MT with a sustained price above US\$800/MT until June 2022. Surges on the international market increases the price of LPG locally because about 60% of national consumption is imported. One of the reasons why consumption plummeted in 2022 was as a results of price hikes on the international market, which caused ex-pump prices to surge.

Exchange rate

Another determinant of ex-pump price is the exchange rate. Depreciation of the Cedi against the dollars cause a surge in the ex-pump price of LPG locally. It is established that a percentage depreciation of the cedi against the dollar causes a GHSo.20 surge in the price of LPG. Continues depreciation of the cedi increases price beyond the expectation of the consumer, thereby deterring their usage of LPG.

Tax/Levies and Margins

The LPG user in Ghana pays more than GHS3 per kilogram in the form of tax, levies and distribution margins. The worrisome nature of benchmarking the Cylinder Investment and Bottling of US\$80/MT exacerbates the plight of the LPG user because anytime the cedi depreciates the LPG user pays high for cylinder investment and bottling. In real terms, service providers who manufacture cylinders and fill LPG cylinders will retain their investment in the shortest possible time while the consumer suffers. For example, a 10-year payment of the margin will yield over \$250 million, which could far exceed the cost of investment. However, compared to Nigeria, the Nigerian government announced the removal of VAT and all import duties on LPG to increase LPG utilisation. La Côte d'Ivoire is subsidising to the tune of about 20% to 25%.

Interventions to improve LPG Consumption in Ghana

LPG consumption in Ghana's urban center is higher than it's rural areas by nearly four folds. Urban penetration of LPG is about 51.3% while rural consumption is still lagging at 14.8% as at 2022. Greater Accra's penetration is about 68% compared to less than 5% in North East or Savannah Region as at 2021 (Ghana Statistical Service, 2021). One of the major barriers of penetration in the rural areas is cost of LPG and their accessories (equipment). In Ghana, consumption has been associated with high income earners while low income earners rely on wood fuels as their cooking fuels.

To increase penetration, there must be accessibility, promotion and financing options.

Accessibility

Government must support LPG distributors through tax exemptions and low credit facilities to expand exchange points across rural Ghana. This helps reduce the cost of investment in setting up exchange points across the country, and reflective lower margins by LPGMCs.

Promotion

Government must promote the usage of LPG in rural areas through faith based and community based organisations as well as schools and other community institutions. Rural population must be trained on LPG use and safety as well as its impact on climate change.

Financing Options

- 1. Government could use subsidies as is the case of Angola, Cameroon, Senegal, Morocco Cote d'Ivoire, India, Indonesia and Ecuador to increase penetration.
- 2. Removal of taxes on the price of LPG.

Conclusion

The Regulator should independently track cylinders outside the control of bottling plants to ensure transparency and fiscal prudence in verifying and settling cylinder investment claims. The cylinder tracking must cover the entire value chain—from manufacturers and bottling plants through LPGMC exchange points to the final consumer—enabling the NPA to accurately determine cylinder population, LPG penetration, and safety status.

Effective monitoring of cylinder safety at the consumer level is essential to ensure timely withdrawal of cylinders due for maintenance. Reliance on LPGMCs or bottling plants for such actions may compromise objectivity, as these entities may have a financial incentive to withhold accurate information.

Accurate data on cylinder population is equally critical for the Ministry of Energy and other stakeholders to prevent artificial cylinder shortages that could justify emergency procurements and deplete the Cylinder Margin Fund. The Regulator and industry stakeholders must therefore independently verify and maintain reliable data on cylinder availability and usage.

5.6 Profitability of Petroleum Service Providers (PSPs)

The petroleum downstream has only three service providers in the sector that report their profitability to the public. These companies are Ghana Oil Company Limited (GOIL), Vivo Energy (Shell) and Total Energy Ghana Marketing Company Limited. Two Oil Marketing Companies including Puma and Engen petroleum also publish their performance. However, their profit reports are integrated into the reports of their parent companies outside Ghana.

Of the companies that reports their profitability, Total Energy Ghana recorded the highest profit in 2024 with a profit of about GHS287 million and an increase of about 69% compared to 2023. The profit of GOIL increased to GHS24 million in 2024 from GHS17 million in 2023 representing 41% increase in profitability. Vivo recorded a net profit of Ghc149 million in 2024 from Ghc71 million in 2023. (see figure 20).

The Ghanaian petroleum downstream is dominated by private limited liability companies and for that matter, they are not mandated to publish their profitability or annual reports to the public.

400,000 300,000 200,000 100,000 2020 2021 2022 2023 2024 GOIL 81,306 61,557 61,319 17,000 24,681 TOTAL 113,684 161,674 287,632 112,744 169,933 VIVO 53,120 74,138 89,400 71,351 YEAR

Figure 20: Trend of the Profitability of GOIL, TOTAL and VIVO ENERGY from 2020 - 2024

Source: Annual Reports (GOIL PLC, Total Energies, Vivo Energy)



DOWNSTREAM FINANCIAL REVIEW

6.1 SUPPLIERS' PREMIUMS

The Suppliers' Premium in the petroleum products Price Build-Up (BPU) was created for the full cost recovery of investment of BIDECS in the importation of petroleum products. This ensures the viability of petroleum products importers to guarantee the sustainability of petroleum products supply into the country. It consists of the various cost incurred by BIDECs in landing petroleum products into the petroleum storage terminals. The Suppliers' Premium does not include the international market price of the products (Free On Board).

The Suppliers' Premium in this Report is computed, using the ex-refinery prices of BIDECs in the Enterprise Relational Database Management System (ERDMS) of the NPA. BIDECs upload into the ERDMS the prices (ex-refinery price) at which they sell products to the Oil Marketing Companies (OMCs). These ex-refinery prices are averaged for each window and are used to extrapolate the Suppliers' premiums through a backward calculation by adopting the estimated exchange rate for the pricing window.

Suppliers' Premiums declined drastically in 2024 largely as a result of the decline in the IOTC premiums, freight and insurance costs compared to the unprecedented surge recorded in 2023. The surge in 2023 was mostly attributed to the downgrade in the country's credit rating in the third quarter of 2022 and the Debt Exchange program that commenced in 2023. Standard and Poor's ("S&P") Global Ratings and Moody's Ratings downgraded the country's foreign and local currency credit ratings from 'B-/B' To 'CCC+/C' and Long-Term Issuer and Senior unsecured bond Ratings to Caa1 from B3 respectively. These impacted the confidence of IOTCs on the credit worthiness of the country, thereby increasing premiums in 2023.

The estimated Suppliers' Premium of petrol declined significantly by about 59.83% in 2024, from an annual average of USD159.35/mt in 2023 to USD64.01/mt, after increasing by about 146.80% in 2023. It is observed that average premium of petrol was higher in Q1 than Q4 by about 18.39%.

The Suppliers' Premiums of LPG and diesel averaged USD40.51/mt and USD56.03/mt in 2024 a decline of about 80.95% and 56.46% respectively. The significant decline in the Suppliers' premium of LPG was largely due to the introduction of the LPG tender system by the NPA in February 2023. Figure 21 below shows the trend of Suppliers' premiums in 2024. The trend reveals a declining pattern of suppliers' premiums in the period. Figure 21 reveals the sharp decline in premiums from Q1 to Q4.

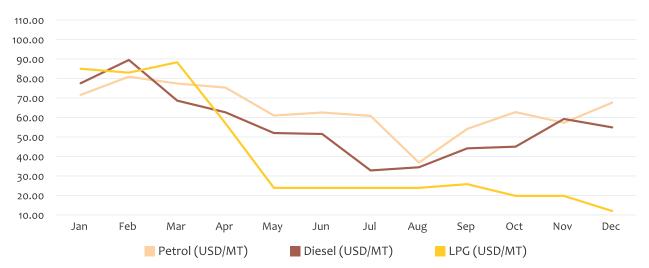


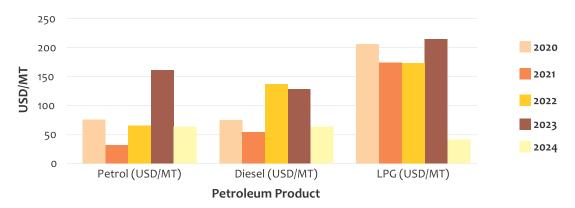
Figure 21: Trend of Suppliers ' Premiums for 2024

Source: Authors compilation

Observing the trend of Suppliers' Premiums reveal a sharp decline in average annual Suppliers' Premiums for all petroleum products. Suppliers Premiums in 2024 fell below their 2022 values when suppliers' premiums rose significantly due to the Russia - Ukraine war, Covid-19 pandemic, and the

downgrade of the country's credit rating in 2022, the Debt Exchange Program in 2023 and the Israel – Hamas war. Figure 22 shows a five-year comparison of Suppliers' Premiums of petrol, diesel and LPG.

Figure 22: Suppliers ' Premiums from 2020 to 2024



Source: Authors compilation

The BIDECs subsector after the deregulation is being confronted with stiff competition leading to price undercutting in the industry. Widely complained about by industry players, this phenomenon of underpricing and undercutting continue to threatened the survival of BIDECs. The NPA in 2024 implemented price floors to mitigate the constant price undercutting that threatened the survival of PSPs. The price floors were however suspended for the BIDECs but maintained in the OMC sector. Table 5 below shows the estimated average Suppliers' premiums by NPA for each month.

Table 5: Suppliers' Premiums for 2024

MONTH	PETROL (USD/MT)	DIESEL (USD/MT)	LPG (USD/MT)
JAN	71.57	77.52	85.00
FEB	80.90	89.52	83.00
MAR	77.40	68.63	88.33
APR	75.34	62.62	56.95
MAY	60.99	52.00	23.89
JUN	62.55	51.51	23.89
JUL	60.81	32.82	23.89
AUG	36.85	34.44	23.89
SEP	54.15	44.15	25.79
ост	62.75	45.00	19.75
NOV	57.23	59.25	19.75
DEC	67.62	54.92	12.00
AVERAGE	64.01	56.03	40.51

6.2 MARKETERS AND DEALERS MARGINS

The estimated "Marketers and Dealers Margins" used by OMCs for **petrol** ranged between GHSo.51/Lt and GHS1.36/Lt, and averaged GHSo.89 compared to GHSo.76/Lt in 2023, up by 17%. This was however lower than the 32% increased recorded from 2022 to 2023. The lowest margin was recorded in July while the highest margin was recorded in March.

The estimated "Marketers and Dealers Margins" used by OMCs for **diesel** ranged between GHSo.41/Lt and GHS1.16/Lt, and averaged GHSo.80/Lt, about 45% higher than the GHSo.55/Lt recorded in 2024. The lowest margin was recorded in February while the highest margin was recorded in October.

The estimated "Marketers and Dealers Margins" used by OMCs for LPG ranged between GHS0.74/Kg and GHS1.37/Kg, and averaged GHS0.91/Kg, down from the 2023 average of GHS0.96/Kg by about 5%. The lowest margin was recorded in November while the highest margin was recorded in October (see figure 23).

1.60 1.40 1.20 1.00 0.80 0.60 0.40 0.20 0.00 Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Petrol (GHS/Lt) Diesel (GHS/Lt) LPG (GHS/Kg)

Figure 23: Trend of Marketers and Dealers Margins for 2024 (GHS/Lt;Kg)

Table 6: Average Marketers' and Dealers' Margins in 2024

	Petrol (GHS/Lt)	Diesel (GHS/Lt)	LPG (GHS/Kg)
Jan	0.73	0.72	0.83
Feb	1.13	0.41	0.83
Mar	1.36	0.96	0.85
Apr	1.20	0.95	0.79
May	1.09	0.95	0.96
Jun	0.69	0.54	0.97
Jul	0.51	0.84	0.98
Aug	0.77	0.94	0.78
Sep	0.70	0.70	0.85
Oct	0.98	1.16	1.37
Nov	0.62	0.69	0.74
Dec	0.92	0.69	1.01
Average	0.89	0.80	0.91

6.3 BOG AUCTION

The Bank of Ghana's arrangement with BIDECs to provide FX for petroleum product importation continued in 2024. This special FX auction to BIDECs commenced in April 2022 and is conducted not less than three (3) days before the start of a pricing window. The aim of this initiative was to provide FX to BIDECS at favorable rates for the importation of petroleum products into the country. It was also intended to aggregate BIDECs' FX demand and to eliminate the impact of FX demand duplication on the commercial market.

The BOG reviewed the volume of FX they auction to BIDECs from an average of about USD97mn monthly in 2022 to USD40mn monthly from March 2023 through to December 2024. This was due to attempts by the BOG to increase its foreign exchange reserves which had declined in 2022 to 2.7 months of import cover. The African Development Bank reported that Ghana's gross international reserves shrank from USD6.3 billion at the end of 2022 (2.7 months of import cover) to USD5.0 billion (2.3 months) in November 2023⁵³. However, the Gross International Reserves increased to USD8.98 billion at the end of 2024 (4 months of imports cover).

Due to the decline in the reserves, the BOG reduced it's allocation to BIDECs by about 50% from about USD1,166mn in 2022 to USD578mn in 2023 and to USD48omn in 2024. Plagued by rising inflation and volatile depreciation of the cedi, the BOG auction rate depreciated by about 23% in 2023, from an average of GHS9.3450/USD to GHS11.4729/USD and further to GHS14.4612 (a depreciation of 26% in 2024). As a result of the depreciation of the cedi, petroleum products prices at the pumps increased by 27%, 8%, and 9% for LPG, Petrol, and Diesel respectively in 2024. In 2024, the BOG auction was only about 26% of BIDECs total bids compared to 43% in 2022 and 27% in 2023 (See table 7).

Table 7: Summary of BOG's Auction from 2022 to 2024

	2022	2023	2024
Total Bid (USD)	2,936,063,551	2,161,879,495	1,826,181,211
Amount Offered (USD)	1,166,354,693	577,989,862	480,000,000.00
Percentage Offered	43%	27%	26%
Auction FX Rate (GHS/USD)	9.3450	11.47286	14.4612

A summary of the BOG bi-weekly auction to BIDECs is shown in table 8.

Table 8: Summary report of BoG FX Auctions for BIDECS in 2024

Window	Total Bid (USD)	Amount Offered (USD)	Percentage Offered	Auction FX Rate (GHS/USD)
1 -15 Jan 24	107,421,618	20,000,000.00	19%	12.1497
16 - 31 Jan 24	64,613,301	20,000,000.00	31%	12.1369
1 - 15 Feb 24	95,011,939	20,000,000.00	21%	12.3948
16 - 29 Feb 24	85,300,210	20,000,000.00	23%	12.4888

⁵³ https://www.afdb.org/en/countries/west-africa/ghana/ghana-economic-outlook#:~:text=Gross%20international%20reserves%20shrank%20from,to%2013.96% 25%20in%202023).

Table 8: Summary report of BoG FX Auctions for BIDECS in 2024 (Cont.)

Window	Total Bid (USD)	Amount Offered (USD)	Percentage Offered	Auction FX Rate (GHS/USD)
1 - 15 Mar24	88,055,327	20,000,000.00	23%	12.7291
16 - 31 Mar 24	91,663,353	20,000,000.00	22%	12.9737
1 - 15 Apr 24	66,520,927	20,000,000.00	30%	13.116
16 - 30 Apr 24	64,516,129	20,000,000.00	31%	13.2259
1 - 15 May 24	68,965,517	20,000,000.00	29%	13.8643
16 - 31 May 24	86,819,814	20,000,000.00	30%	14.1419
1 - 15 Jun 24	86,807,431	20,000,000.00	23%	14.8388
16 - 30 Jun 24	69,078,476	20,000,000.00	29%	15.0523
1 - 15 Jul 24	93,990,641	20,000,000.00	21%	15.3169
16 - 31 Jul 24	70,274,403	20,000,000.00	28%	15.4526
1 - 15 Aug 24	68,965,517	20,000,000.00	29%	15.5647
16 - 31 Aug 24	72,791,333	20,000,000.00	27%	15.7311
1 - 15 Sep 24	70,173,094	20,000,000.00	29%	15.6062
16 - 30 Sep 24	64,163,411	20,000,000.00	31%	15.6631
1 - 15 Oct 24	62,334,729	20,000,000.00	32%	15.799
16 - 31 Oct 24	50,299,840	20,000,000.00	40%	15.868
1 - 15 Nov 24	75,740,024	20,000,000.00	26%	16.393
16 - 30 Nov 24	70,552,497	20,000,000.00	28%	16.209
1 - 15 Dec 24	75,307,604	20,000,000.00	27%	15.5388
16 - 31Dec 24	76,814,075	20,000,000.00	26%	14.813
Total	1,826,181,211	480,000,000.00		
Average			26%	14.4612

Source: CBOD's Compilation

6.4 STOCK ACCOUNTING IN THE SECTOR

6.4.1 National Stock Reconciliation

Due to the increasing demand for energy in Ghana, several refined petroleum products including Gasoline, Gasoil, Fuel oil, Unified, Kerosene, LPG, Premium, Premix and ATK are consumed regularly. However, Gasoline and Gasoil are the most consumed petroleum products in the country. Large quantities of these products are imported while a small quantity is produced by local refineries. Petroleum products consumed in Ghana are subject to various taxes, levies and regulatory margins. Taxes and levies on the sale of these products (GHS1.90 on Gasoline and GHS1.88 on Gasoil) accounted for about 12% of total domestic tax revenue in 2024 emphasising the importance of petroleum tax revenue to the Government's fiscal policy. This also underscores the need to monitor stock movement and accounting to ensure the optimization of this revenue by the State.

In accounting for stock movements, this report considers the following elements as depicted in the formula below: Opening Stock positions, Stock Inflows (Imports and Production), Closing Stock, Domestic Reported sales and Exports and provisions for operational losses.



The analysis develops an expectation of sales in line with stock accounting principles after adjusting for operating losses, where applicable, and compares it with officially reported sales (domestic and exports).

An analysis of the position using official records of the NPA revealed that in 2024, about 105.13mn litres of stocks of gasoline delivered into the country were not accounted for and may have evaded Ghana's tax regime by about GHS199.74mn. The analysis also revealed that 28.83mn litres of stocks of gasoil delivered into the country were not accounted for, amounting to GHS54.21mn in potential government taxes. The total estimated tax revenue associated with these unreported stocks of petrol and diesel led to a loss of government revenue by about GHS253.95mn.

The unaccounted stock is largely attributed to illegal activities in the sector despite the automations and other initiatives by the Regulator. CBOD raised concerns that the frequent transfers of refined products from depots to some of the modular refineries could be an avenue for illegal transfer of products to retail outlets to evade taxes. This calls for stricter monitoring of petroleum product stocks along the entire value chain. Moreover, we recommend that strict protocols should be issued in relation to export of products to neighboring countries to avoid diversion and tax evasion (development of a comprehensive petroleum products export manual). Permits for exports should be follow up with payments by LCs from international bank or confirmation of payment by BoG.

Additionally, it is recommended that the NPA and stakeholders should develop a guideline that will the govern the transfers of refined products from refinery tanks to commercial tanks at the refineries. Thus, all the modular refineries must be onboarded into the ERDMS and ICUMS to monitor their inflows, production and outflows. This will prevent attempts to load products into BRVs from refinery tanks unto to the retail outlets to evade taxes.

7,000.00 6,128.02 5,994.06 6,000.00 4,892.03 5,250.88 5,429.76 **VOLUME - MILLION LITRES** 4,850.87 126.71 4,808.37 4,490.93 5,000.00 4,740.65 4,611.29 4,466.46 4,039.59 3**,9**59.02 756,10 4,000,00 3,465.33 3,000.00 2,000.00 781.63 1,000.00 621,40 1<mark>3</mark>3.96 124.16 (41.15) (574.25) (1,000.00) 2024 2023 2022 2021 2020 2019 2018 2017 ■ Expected Sales 6,12 5,25 5,42 4,85 4,49 4,61 3,46 4,74 Actual Sales 5,99 5,12 4,80 4,89 4,46 3,75 4,03 3,95 Variance 133. 124. 621. (41. 24.4 855. (574 781. **YEAR**

Figure 24: Expected vs Actual sales and Variances (2017 – 2024)

Actual Sales

Variance

Expected Sales

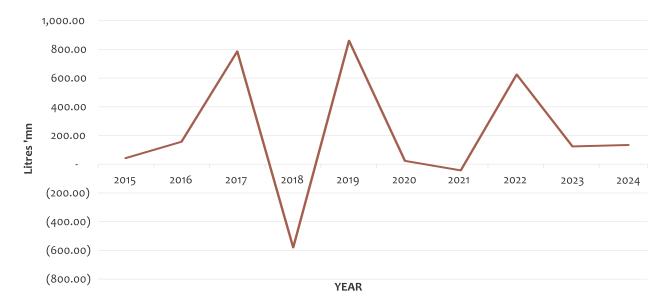


Figure 25: Growth in Official Unaccounted Stocks (2015-2024)

6.5 TAXES AND LEVIES ON PETROLEUM PRODUCTS

Government taxes and levies have been imposed on the consumption of various petroleum products to generate revenue for government. These taxes and levies are imposed on the sale of petroleum products such as Gasoline, kerosene, gasoil, Liquefied Petroleum Gas (LPG), Marine Gas Oil (MGO), Naphtha, and Residual Fuel Oil (RFO).

The Energy Sector Levies Act (ESLA), Act 899 in 2015, was enacted to consolidate existing energy sector levies to promote prudent and efficient utilisation of proceeds generated from the levies. The ESLA therefore consolidated the existing petroleum taxes and related levies (cross-subsidy levy, energy levy, hydrocarbon exploration levy, road levy, specific levy, and the Tema Oil Refinery debt recovery levy) into four new levies. Following the ESLA, the petroleum excise was abolished in 2017. This was part of the government's efforts to reduce the tax burden on consumers of petroleum products, manage the liabilities of the Energy Sector State-Owned Enterprises, facilitate sustainable long-term investments in the energy sector, and support road maintenance activities.

The petroleum product Price Build-Up had the following levies imposed infused in it as part of the ESLA.

- Energy Debt Recovery Levy (EDRL),
- 2. Price Stabilisation and Recovery Levy (PSRL),
- 3. Road Fund Levy (RFL),
- 4. Energy Fund Levy (EFL),
- 5. Energy Sector Recovery Levy (ESRL),
- 6. Sanitation and Pollution Levy (SPL) and
- Special Petroleum Tax (SPT).

Other regulatory margins on petroleum products include the BOST margin, Primary Distribution margin (PDM), UPPF margin, Fuel Marking Margin (FMM), and the LPG promotion Margin. It is also worthy of note that the NPA in the year under review imposed a levy of USD80/MT on LPG of which USD36/MT is a cylinder investment margin for the acquisition of cylinders by the bottling plants, and USD44/MT is a Bottling Plant Margin.

It must be noted that ESLA is not only imposed on the consumption of petroleum products but on electricity consumption through Public Lighting Levy and National Electrification Scheme Levy. See table 9

Table 9: Taxes, Levies and Regulatory Margins, 2024

TRM COMPONENTS	Gasoline (GHp/ltr)	Gasoil (GHp/ltr)	LPG (GHp/KG)	
ENERGY DEBT RECOVERY LEVY	49	49	41	Debt recovery of Tema Oil Refinery; downstream petroleum sector foreign exchange under-recoveries; boost investments in power infrastructure
ROAD FUND LEVY	48	48	-	Support road maintenance
ENERGY FUND LEVY	1	1	-	Support activities of the Energy Commission
PRICE STABILISATION & RECOVERY LEVY	16	14	14	Used as a buffer for under- recoveries, or subsidies to stabilise petroleum prices for the consumer
SANITATION & POLLUTION LEVY	10	10	-	Support the re-engineering and maintenance of landfill sites; support fumigation of public spaces, schools, health centres and markets; construct waste disposal and treatment plants; and improve urban air quality and combat pollution
ENERGY SECTOR RECOVERY LEVY	20	20	18	Support the payment of capacity charges and gas supply bills in the energy sector
PRIMARY DISTRIBUTION MARGIN	26	26	-	To cater for inter-depot transfers
BOST MARGIN	12	12	-	For BOST infrastructure development
FUEL MARKING MARGIN	9	9	-	This caters for the marking of petrol and diesel
SPECIAL PETROLEUM TAX	46	46	48	For government revenue generation
UPPF	90	90	85	For the cost of transporting product to retail outlets
DISTRIBUTION/PROMOTION MARGIN	-	-	5	
TOTAL	327	325	211	

Source: Authors compilation

The SPT was introduced by the government in 2014 (Special Petroleum Tax Act, 2014, Act 879), at an ad valorem rate of 17% on the ex-depot price of petroleum products but it is currently a specific rate on per litre or kilogram of petrol, diesel, LPG, natural gas, and kerosene as shown in table 9.

The SPL was introduced to address the rising sanitation issues in the country as well as improve the quality of air in the urban areas, provide dedicated support for maintenance and management of major landfill sites and other waste treatment plants and facilities, eliminate open defecation, and serve as a buffer for the fumigation of public spaces.

In terms of Government revenue classification, the Energy Fund Levy, Road Fund Levy, and SPT are classified as tax revenue, and this is because the levies are deposited into the 'Ghana Consolidated Fund'. Revenue collections from the Energy Debt Recovery Levy, Price Stabilisation and Recovery Levy, Energy Sector Recovery Levy and the Sanitation and Pollution Levy are classified as 'other revenue' and this is because they are earmarked into specific accounts other than the Consolidated Fund.

According to the ESLA Report for 2024 presented to Parliament by the Ministry of Finance, actual Energy sector levies amounted to GHS8,679.27 mn in 2024 against a revised target of GHS9,233.19 mn due to lower than anticipated petroleum products consumption and unpaid invoices by OMCs and LPGMCs. Notwithstanding, this is a 18% increase over 2023 collections of GHS6,703.30. About GHS7,984.80 mn out of the total ESLA collections was collected from Petroleum products levies, representing 92% of ESLA's contribution. Collections for the electricity levies amounted to GH¢694.48 million, underachieving its target by GH¢122.22 million representing 15.0% on account of unrealised power sales due to commercial and technical losses, and unpaid invoices by the consumers of electricity (see table 10).

Collections from the EDRL increased by 17.08% in 2024 from GHS2,435.24mn in 2023 to GHS2,851.08mn in 2024. However, this was about 21.51% lower than targeted amount. Collections from the ESRL increased by 16.58% in 2024 to GHS1,163.74mn. Total collection from the SPL amounted to GHS551.38mn representing a 17.10% increased over collections in 2023. Collections from the RFL and EFL increased by 17.46% and 16.92% respectively. The increase in collections is attributed to the increase in petroleum products consumption in 2024 particularly petrol, diesel, and LPG (see figure 26).

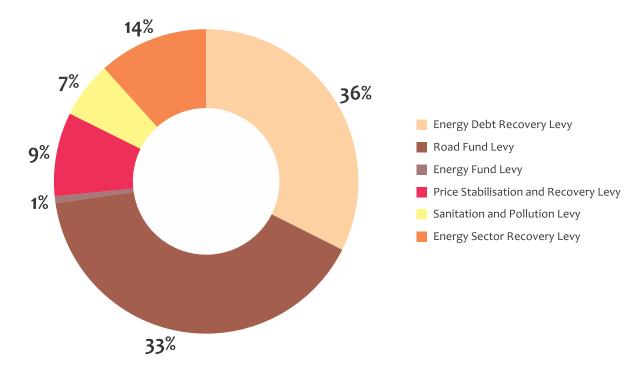
The PSRL which is collected by NPA amounted to GHS715.94mn in 2024. An outstanding amount of GHS115.16mn owed by 24 OMCs/LPGMCs was yet to be paid as at the end of the year. Goil owed about GHS110.34 mn out of the total outstanding amount. The Ministry of Finance released GHS263.55mn for the payment of outstanding subsidy on premix fuel owed to BIDECs that supplied products to the local market.

Table 10: ESLA Contribution

	Tax component	2024 GHS	2023 GHS	2022 GHS
1	Energy Debt Recovery Levy	2,851,077,368.21	2,435,242,091.79	2,269,637,618.08
2	Road Fund Levy	2,646,750,429.93	2,253,246,713.75	2,095,002,024.55
3	Energy Fund Levy	55,906,791.89	47,817,339.03	44,322,331.15
4	Price Stabilisation and Recovery Levy	715,935,122.53	610,435,579.14	504,246,122.96
5	Sanitation and Pollution Levy	551,384,047.27	470,877,332.27	452,008,576.24
6	Energy Sector Recovery Levy	1,163,741,378.75	998,227,903.80	959,857,946.77
	ESLA Contribution	7,984,795,138.58	6,815,846,959.78	6,325,074,619.75

Source: 2024 ESLA Report

Figure 26: Share of Petroleum Contributions to ESLA



Source: 2024 ESLA Report



MARKET REVIEW

7.1 NATIONAL CONSUMPTION

Ghana's gross national consumption⁵⁴ recorded 5.27 mn mt in 2024. This is a 17% increase from the 4.49 mn mt consumed in 2023 (see figure 27). A total of 5.25 mn mt was consumed by the non-power sector representing 99.6% of the gross consumption while 0.4% was consumed by the power sector (fuel oil and gasoil for power). The 5.25 mn mt consumed by the non-power sector was a 17% increase from the 4.48 mn mt consumed in 2023. Aksa Energy Company Ltd and Cenpower used refined products in their generation process.

The rise in growth in the consumption by the non-power sector was mainly due to the increase in consumption for all petroleum products except naphtha, kerosene, fuel oil (industrial), and gasoil rig. The main petroleum products (Gasoil Regular and Gasoline) each recorded increase of 16% in 2024 from 2023. There was a significant increase in the volume of MGO Local and Gasoil (Cell Site) by 85% and 264%, respectively from 2023 to 2024. Although ATK consumption witnessed an increase of 6% in 2024, its consumption was 8% less than the highest annual volume recorded in 2019 i.e. pre-COVID-19 pandemic.

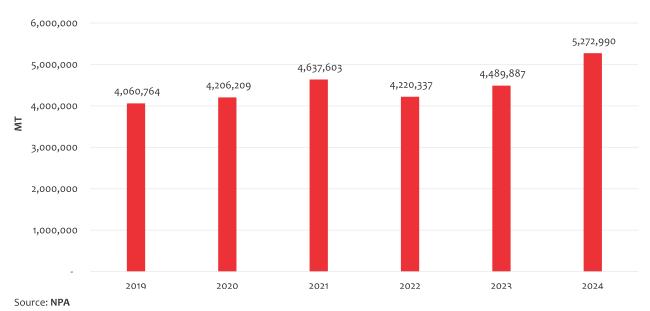


Figure 27: Trend of Petroleum product consumption (2019-2024)

7.1.1 **Gasoil**

Gasoil remained the largest consumed product in the country in 2024, accounting for 50% of total petroleum products consumption. Its consumption increased to 2.65mn mt in 2024 from the 2.16mn mt recorded in 2023. This represents a 23% increase in the 2024 volume consumed. The increase was driven by the rise in the consumption of gasoil regular, gasoil mines, gasoil cell site, gasoil power plant, marine gasoil local and foreign by 16%, 9%, 264%, 3104%, 85%, and 270% respectively. Consumption of gasoil rig in 2024 decreased by 56% (see figure 28). Of the total gasoil consumption in 2024, 30% was additivated, same as in 2023. The trend of gasoil consumption from 2019 to 2024 is presented in figure 29.

⁵⁴ Gross national consumption is the sum of petroleum products (including fuel for power generation)

Figure 28: Gasoil Consumption (2023-2024)

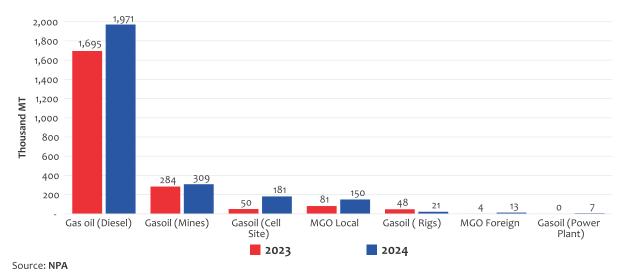
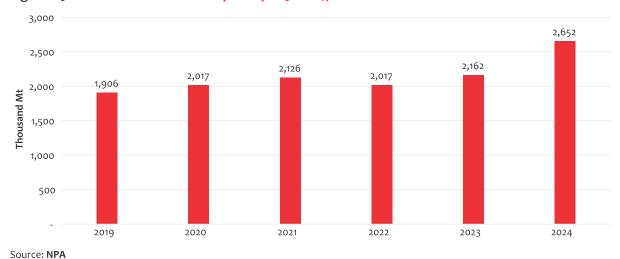


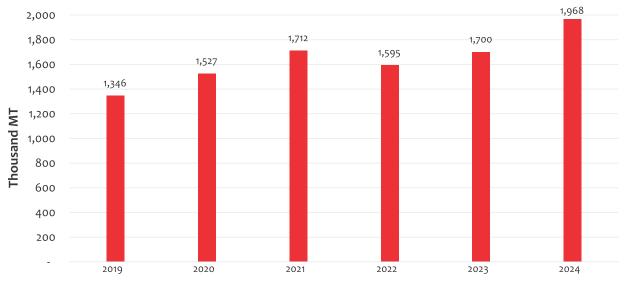
Figure 29: Trend of Gasoil Consumption (2019-2024)



7.1.2 Gasoline

Gasoline was the second highest consumed product in Ghana, accounting for 37% of total refined products consumption in 2024 (see figure 30). It's consumption increased to 1.97 mn mt in 2024 from 1.70 mn mt in 2023. This represents a 16% increase, compared to the 7% rise in 2023. Regular gasoline (RON 91) accounted for 81% total gasoline consumption, same as recorded in 2023. Premium gasoline (RON95) accounted for 19% of total gasoline consumption, same as in 2023. Of the regular gasoline consumption, 27% was additivated in 2024, compared to 23% recorded in 2023.

Figure 30: Gasoline Consumption, 2019 - 2024 (mt)

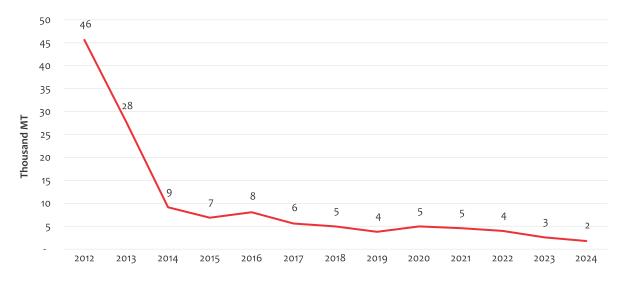


Source: NPA

7.1.3 Kerosene

The consumption of kerosene declined by 31% to 1,777mt in 2024 from 2023, reflecting the downward trend witnessed over the years (see figure 31). The significant drop in the consumption of kerosene is largely attributable to the reduction in the use of the product as an adulterant for gasoil after the NPA introduced the Fuel Marking Programme in 2013 and the removal of the kerosene subsidy in 2013. The government's LPG Promotion policy, which seeks to replace the consumption of wood fuels with the use of LPG also contributed to the significant fall in the consumption of kerosene over the years. The increasing urbanisation of the Ghanaian population also contributed to driving the switch from the use of kerosene to cleaner sources such as LPG.

Figure 31: Kerosene Consumption (2012 -2024)



Source: NPA

LPG 7.1.4

The consumption of LPG increased from 317,465 mt in 2023 to 340,492 mt in 2024 representing an increase of 7% from 2023 (see figure 32). The increase in consumption witnessed in 2024 could be attributed to improvement in the country's economic activities in 2024. Despite the average 24% increase in LPG retail prices in 2024, demand growth was robust at 7%. It is envisaged that LPG demand will further increase on account of further improvement in the macroeconomic indicators. Although LPG consumption seems to be rising, this is highly constraint by the higher taxes on LPG pump prices. It is recommended that taxes on LPG should be removed to promote domestic consumption. However, due to the concerns of LPG being diverted for autogas, government could promote LPG usuage for domestic consumption by removal taxes on LPG distributed through the CRM.

450 394 400 359 345 340 340 332 350 317 305 281 279 Thousand MT 300 268 252 242 250 200 150 100 50 2012 2013 2015 2016 2017 2018 2019 2020 2021 2022 2024 2014 2023 Source: NPA

Figure 32: Domestic LPG Consumption 2012-2024

Premix Fuel 7.1.5

Consumption of premix fuel rose from 25,879 mt in 2023 to 29,059 mt in 2024, representing an increase of 12%. The 2024 recovery follows a cumulative 75% reduction in consumption during the previous two years largely on account of supply constraints driven by government's delay in paying the subsidy due bulk suppliers (see figure 33). The CBOD and other stakeholders continue to call on government to consider alternative ways of supporting the people in the fishing communities other than the use of premix fuel subsidy. About GHS217mn of premix fuel under-recoveries was recorded in 2024, this could have potentially ben used to undertake several developmental projects in the fishing communities that will directly benefit the indigens.

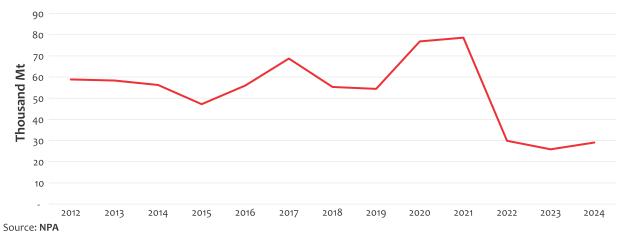


Figure 33: Premix Consumption 2012-2024

80

7.1.6 Fuel Oil

Consumption of fuel oil declined from 79,723 mt in 2023 to 68,114 mt in 2024, representing a decrease of 15% on account of the steep 20% decrease in the consumption of fuel oil by industries (see figure 34). The decline in consumption of industrial residual fuel oil was mainly due to supply constraints occasioned by reduction in local production of the product. Moreover, the government within the year removed the subsidies on RFO, this also largely accounted to the decline in consumption. Fuel oil consumption in 2024 comprised 12,736 mt (19%) of heavy fuel oil for power generation and 55,377 mt (81%) of residual fuel oil for industries (see figure 35).

Figure 34: Fuel Oil Consumption 2012-2024

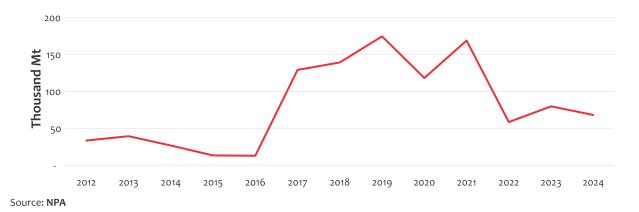
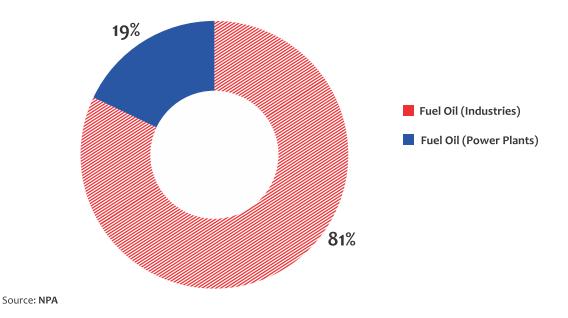


Figure 35: Fuel Oil Consumption, 2024



7.2 OMC/LPGMCs PERFORMANCE

A total of 175 Marketers retailed about 5.27 mn mt of petroleum products on the local market in 2024. This was 17% higher than the 4.22mn mt sold in 2023. Amongst the products marketed were gasoline (petrol), gasoil, LPG, premix fuel, RFO, ATK, marine gasoil, kerosene, and naphtha. Of the 175 OMCs/LPGMCs that operated in 2024, 72 sold products above 10,000mt, while 103 sold products below 10,000mt. Thirty-six (36) Marketers were inactive, compared to 27 in 2023.

Goil Plc, although the market leader for the 10th consecutive year, lost ground with its share decreasing from 20% in 2022 to 11.7% in 2024. Goil's reduction in market share was largely driven by decreases in its gasoil and gasoline sales by 9% and 10%, respectively from 2023. Star Oil maintained its second position, gaining 1.3% share in 2024 to 9.7%. Vivo Energy, TotalEnergies, Zen Petroleum, Puma Energy, and Benab Oil lost market shares in 2024, while Dukes, Gaso, and Desert Oil recorded gains in market share. Desert Oil displaced Frimps Oil from the top 10 marketers in 2024 (see figure 36). This could be attributed to the additional 17 retail outlets by Desert oil in 2024 whiles Frimps Oil maintained its number of outlets. Star Oil increased its number of Outlets by about 27 whiles Benab increased its outlets by about 12. Goil, Puma, Petrosol, and Gas had their number of retail outlets reducing by 10, 9, 6, and 1. It could be inferred that there is a positive correlation between the number of retail outlets and the OMC market share performance.

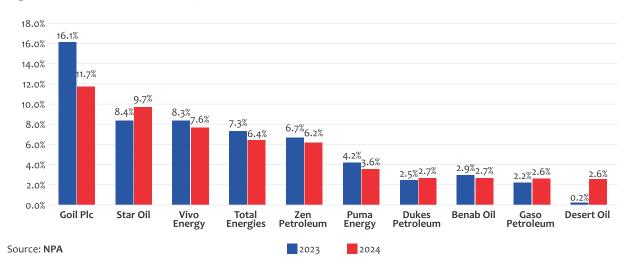


Figure 36: Market shares of Top 10 OMCs

Goil Plc marketed and retailed over 600,000 mt of refined products in 2024, down by over 100,000 mt from 2023. Star Oil marketed over 500,000 mt, Vivo Energy over 400,000 mt, while TotalEnergies and Zen Petroleum marketed over 300,000mt each. The rest of the 5 companies marketed between 100,000mt and 200,000mt (see figure 37).

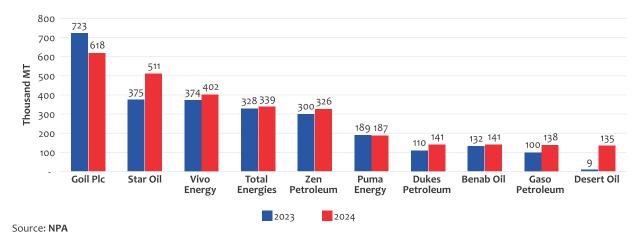


Figure 37: Top 10 OMCs by Volumes Sold (MT)

7.2.1 Market Trends

While majority of the top 10 OMCs marketed gasoline and regular gasoil as their main products, Zen Petroleum has gasoil mines as its lead product, while Puma Energy had ATK as its main product.

The sale of gasoline in 2024 stood at 1.97mn mt, representing a 16% increase over the 1.70mn mt sold in 2023. Although Goil Plc maintained its leadership of the gasoline market in 2024, it recorded a 10%

reduction in sales from 2023 (see figure 38). Star Oil retailed the 2nd highest gasoline volumes, as well as gaining the most volumes amongst the top 10 marketers in 2024. Except for Goil Plc, the other top 10 marketers recorded increases in gasoline sales volumes. Overall, the top 10 OMCs commanded 68% compared to 64% in 2023.

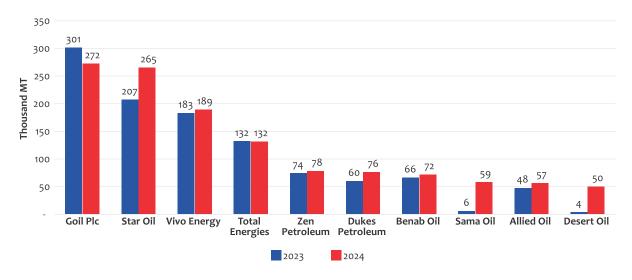


Figure 38: Top 10 Marketers of Gasoline (MT)

The sale of regular gasoil recorded an increase of 16% in 2024, with volumes increasing from 1.69mn mt in 2023 to 1.97mn mt in 2024. Except Goil Plc, the rest of the top 10 OMCs recorded increases in sales volumes in 2024 from 2023. The top 10 OMCs in the market commanded 64% of the market, compared to 63% in 2023. Star Oil, Desert Oil, and Sama Oil were the most gainers increased its 2023. Star Oil, Desert Oil, and Sama Oil recorded the highest increments in 2024 (see figure 39). Star Oil and Desert Oil added about 40 and 17 retail outlets respectively, whiles Sama Oil increased its number of outlets from 3 to 5 in the period.

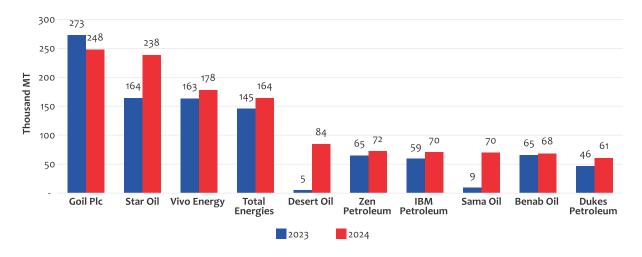
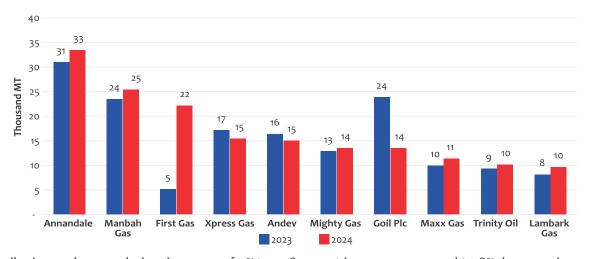


Figure 39: Top 10 Marketers of Regular Gasoil (MT)

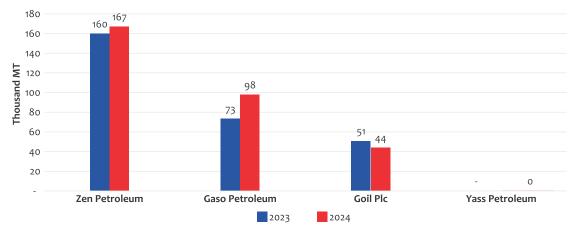
The sale of LPG recorded an increase of 7% in 2024, with volumes increasing from 317,465 mt in 2023 to 340,492 mt in 2024. The top 10 OMCs in the market retailed 50% of the market share, compared to 51% in 2023. Except for Xpress Gas, Andev, and Goil Plc, the other top 10 OMCs recorded increases in volumes in 2024. First Gas recorded the highest gain of 325%, while Goil Plc recorded the highest loss in 2024 compared to 2023 (see figure 40).

Figure 40: Top 10 Marketers of LPG (MT)



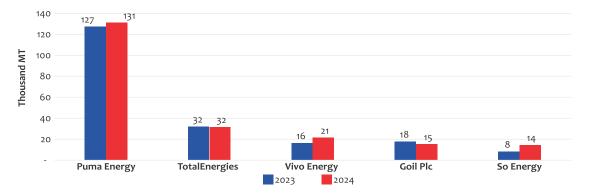
Gasoil mines sale recorded an increase of 9% to 308,559mt in 2024, compared to 8% decrease in 2023. Only 4 marketers sold gasoil mines in 2024, compared to 3 in 2023. Zen Petroleum retailed over 54%, Gaso Petroleum over 32%, Goil Plc retailed about 14%, Yass Petroleum retailing a small volume of gasoil mines in 2024 (see figure 41). Zen Petroleum has consistently dominated the gasoil mines market since 2014, after replacing Total Energies as the largest marketer of gasoil to the mines.

Figure 41: Marketers of Gasoil Mines (MT)



The ATK market continue to be controlled by five marketers, with total volumes increasing by 6% to 213,625mt in 2024. Puma Energy continue to lead the market with a share of 61%, while So Energy recorded market share of a 7% in 2024. So Energy, Vivo Energy, and Puma Energy recorded increases in sales volumes of 77%, 30%, and 3% respectively. However, Goil Plc and TotalEnergies recorded reductions in sale of 15% and 3% respectively in 2024 (see figure 42).

Figure 42: Marketers of ATK (MT)



Premix marketed in 2024 increased by 12% to 29,059mt, having recorded a cumulative 75% reduction in the past two years. Goodness Energy strengthened its leadership position with market share increasing to 19% in 2024 from 16th in 2023. Finest Oil, Frontier Oil, and Cash Oil were the major gainers, with sales increasing by 316%, 218%, and 124% respectively in 2024 from 2023. Except for Tel Energy, the rest of the top 10 marketers recorded robust increases in sales volumes during the period under review (see figure 43).

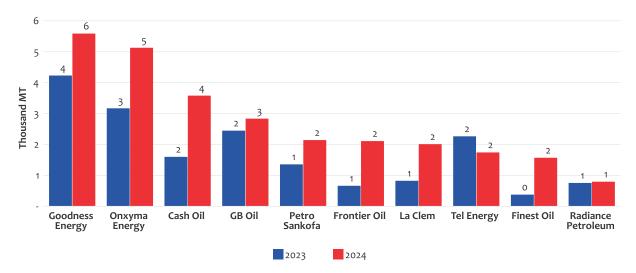


Figure 43: Top 10 Marketers of Premix (MT)

7.3 BIDECs MARKET

A total of about 5.27 mn mt of petroleum products were distributed on the local market in 2024. This was 17% higher than the 4.49 mn mt distributed in 2023. The BIDECs/Refinery market saw the cumulative market shares of the top five increasing from 56% in 2023 to 63% in 2024. Except for Go Energy, the other four distributors recorded increases in their 2024 volumes (see figure 44). Blue Ocean was dislodged from the top five list by Cirrus Oil Services Ltd. Go Energy, the market leader for the past five years, lost grounds to Juwel Energy in 2024, with its share of the market reducing further to 12% from the 16% and 20% recorded in 2023 and 2022 respectively. Juwel distributed over 870,000mt (17%), while Go Energy distributed over 615,000mt (12%) for the period under review (see figure 45).

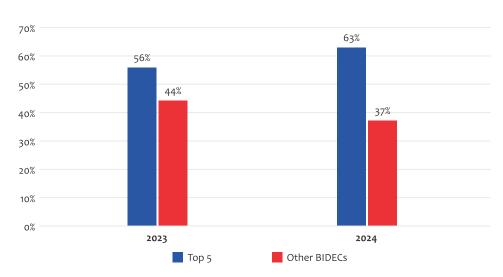


Figure 44: BIDEC Market Share – Top 5 vs Others

Figure 45: Top 5 BIDECs (MT)

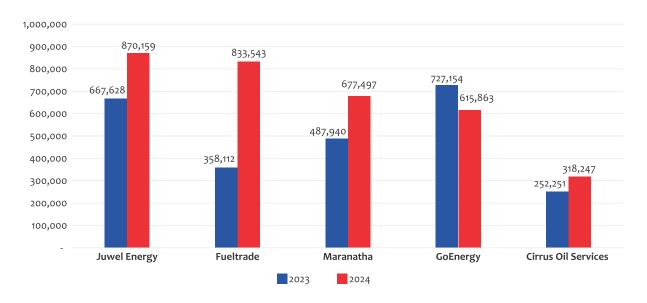
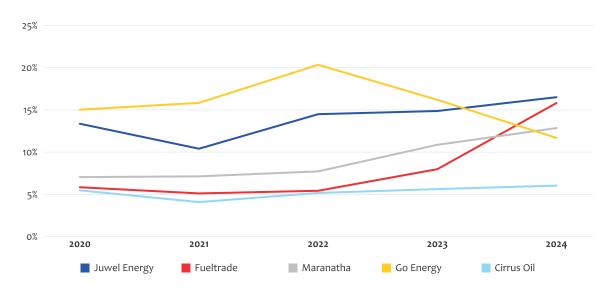


Figure 46: Top 5 BIDECs Evolution



7.3.1 Gasoil Regular

A total of 2.65mn mt of gasoil was distributed in 2024. This was 23% higher than the volumes distributed in 2023. This included regular gasoil (1.97mn mt), gasoil mines (308,559mt), gasoil cell site (181,303mt), MGO local (149,714mt), gasoil rig (21,221mt), MGO foreign (13,139mt), and gasoil power plant (7,122mt).

The top five distributors of regular gasoil in 2024 (Fueltrade, Juwel Energy, Maranatha, Go Energy, and Cirrus Oil) distributed a total of 1,352,032mt, representing 69% of the total market share (see figure 47).

Four players participated in the sale of gasoil to the mines in 2024 as compared to three in 2023. Astra Oil Services maintained its lead distributorship of gasoil (mines) in 2024. The company distributed 167,007mt, representing 54% of the total gasoil mines distribution, as compared to the second ranked distributor, Fueltrade, who distributed 97,705mt (32%) of total gasoil mines in 2024.

Go Energy and Astra Energy were the only companies to sell gasoil rig in both 2024 and 2023. Go Energy maintained its firm grip of the market, distributing 98% of gasoil rig in 2024.

A total of 28 companies distributed MGO local in 2024, compared to 26 companies in 2023. For MGO local, Fueltrade displaced Maranatha as the market leader with (35,752 mt), representing 24% of the total MGO local market. Fueltrade maintained its position as the largest distributor of MGO foreign in 2024 with market share of 71%.

450,000 415,122 400,000 331,528 350,000 309,196 300,000 264,245 247,123 250,000 213,297 200,000 129,630 150,000 89<u>,7</u>16 94,014 100,000 50,000 **Fueltrade Limited** Juwel Energy Maranatha Cirrus Oil Go Energy

Figure 47: Top 5 Gasoil Regular Distributors (MT)

Source: NPA

7.3.2 Gasoline

The top five distributors of gasoline were Juwel Energy (27%), Maranatha (16%), Go Energy (14%), Cirrus Oil (10%), and Fueltrade (6%). They accounted for a total of 1,430,549mt, representing 73% of the total market share. Maranatha moved up to become the second largest gasoline distributor in 2024, increasing its share to 310,518mt in 2024, representing a 42% growth. Except for GoEnergy, the rest of the top five recorded robust increase in their sales volumes.

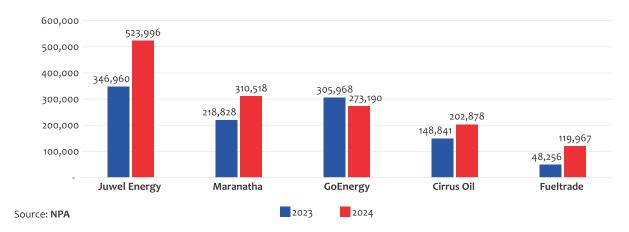
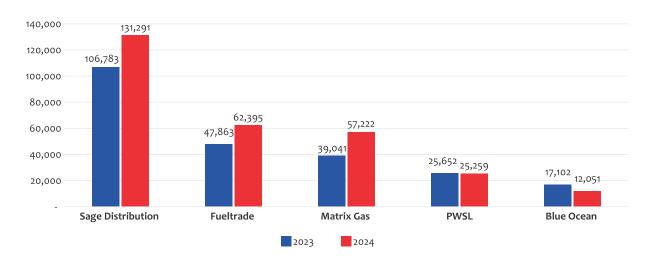


Figure 48: Top 5 Gasoline Distributors (MT)

7.3.3 LPG

A total of twenty-one (21) BIDECs distributed LPG in 2024, compared to sixteen (16) in 2023. The 340,492mt of LPG distributed was mainly for domestic, vehicular, and industrial consumption, with none consumed by the power sector. This represented a 7% rise in the bulk distribution of LPG from 317,465mt in 2023. The largest of the top five distributors of LPG in 2024, distributed 85% of total LPG distributed, with Sage distributing 39%, Fueltrade 18%, and Matrix Gas 17% in 2024.

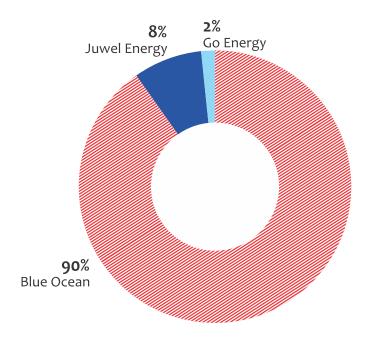
Figure 49: Top 5 LPG Distributors (MT)



7.3.4 Kerosene

Only three companies (Blue Ocean, Juwel, and Go Energy) distributed kerosene in 2024 totalling 1,777mt. This represented a 31% decline in the distribution of kerosene from 2,582mt in 2023 (see figure 50). Kerosene consumption has significantly declined (94%) since the liberalisation of kerosene prices, as well as the introduction of biomarkers from 2012.

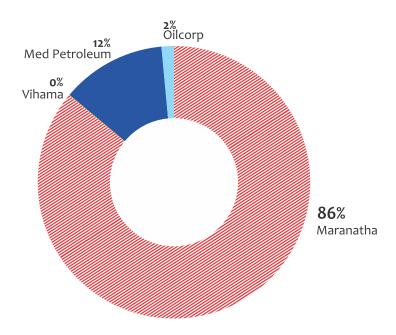
Figure 50: Kerosene Distributors (2024)



7.3.5 Premix fuel

Four BIDECs distributed premix fuel in 2024, compared to two in 2023. Maranatha strengthened its position as the market leader supplying over 86% (equivalent to 24,992mt) of the total premix consumed in the country, while Med Petroleum supplied about 12% (equivalent to 3,578mt) in 2024.

Figure 51: Premix Distributors (2024)



7.4 REGIONAL CONSUMPTION

As expected, the Greater Accra Region maintained its place as the largest consuming region with 1.50mn mt, representing 28.5% of national consumption, compared to 32.4% in 2023. The region lost about 4% share of consumption in 2024 from 2023. The Ashanti and Western Regions followed with consumption accounting for 15.4% each of national consumption. Except for Central and Volta regions, all other regions recorded increases in consumption in 2024 (see figures 52&53). The North East, Oti, and Savannah regions were the least three consuming regions in Ghana during the period under review.

Figure 52: Regional Consumption (MT)

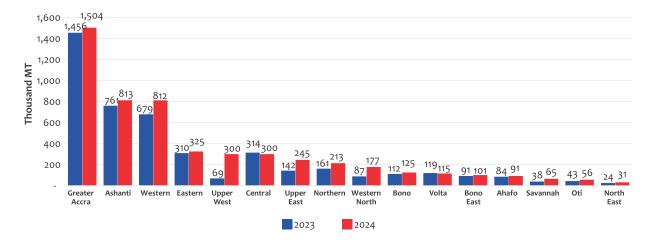
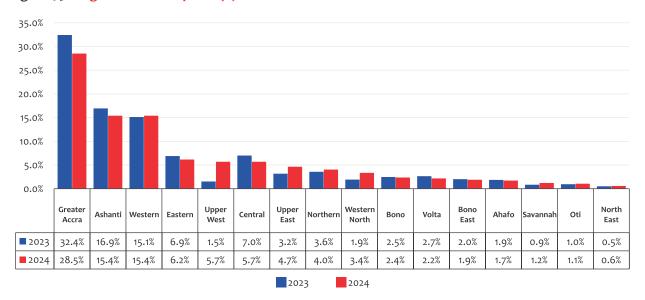


Figure 53: Regional Consumption (%)



7.5 PRODUCTION

Ghana witnessed a 60% increase in total refinery output in 2024. Total output increased to 482,475mt in 2024 from 301,405mt in 2023. The rise in refinery output was mainly driven by the operations of the 40,000bps Sentuo Oil Refinery. Sentuo's output accounted for 65% of total output in 2024. Except for Sentuo Oil Refinery, the rest of the refineries recorded reductions in output in 2024 from 2023. Sentuo's significant increase in output is mainly due to its year-round operations in 2024, compared to the November 2023 commencement in refinery activities. The other refineries' output reductions were largely due to challenges with crude oil procurement for processing. Gasoil, gasoline, and LPG were the largest products obtained from refinery/gas processing operations in 2024, with shares of 34%, 27%, and 25% respectively.

Figure 54: Output of Local refineries (MT)

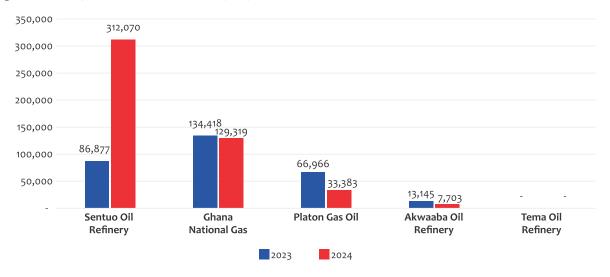


Figure 55: Total Refinery Output (2017-2024)

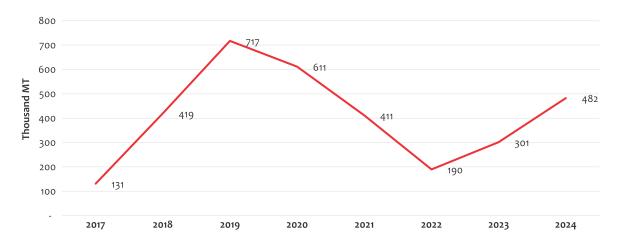


Figure 56: Refinery Output (MT)

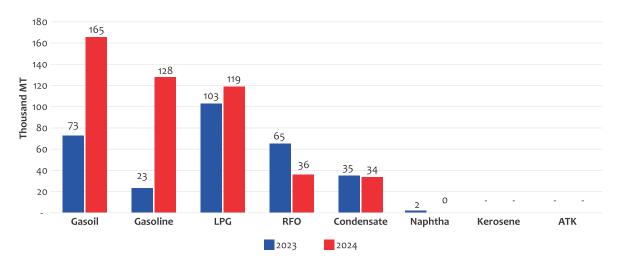
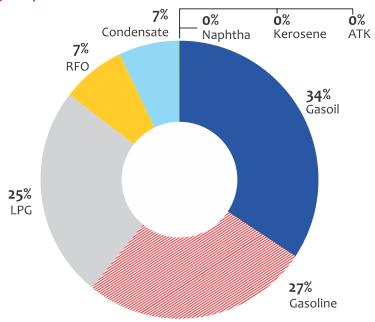


Figure 57: 2024 Refinery Output share



7.6 IMPORTS

Imports of crude oil and refined products increased by 4% in 2024 from 2023. Total imports of crude oil and refined products reached 5.35mn mt in 2024 from 5.14mn mt in 2023. Crude oil imports accounted for 5% (285,771mt) while refined products accounted for 95% of total imports (see figure 58). Majority (80%) of crude oil imports was used for refinery purposes while the remaining 20% was used for power generation.

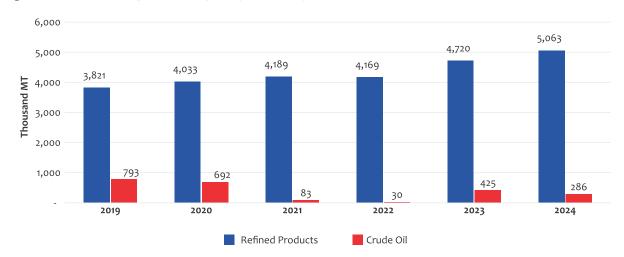


Figure 58: Petroleum product import (2019-2024)

During the period under review, all refined products imports volumes recorded increases from 2023. Gasoil, gasoline, LPG, ATK, and RFO recorded increase of 8%, 3%, 11%, 12%, and 130%, respectively. Crude oil, however, recorded a decrease of 33% from 2023.

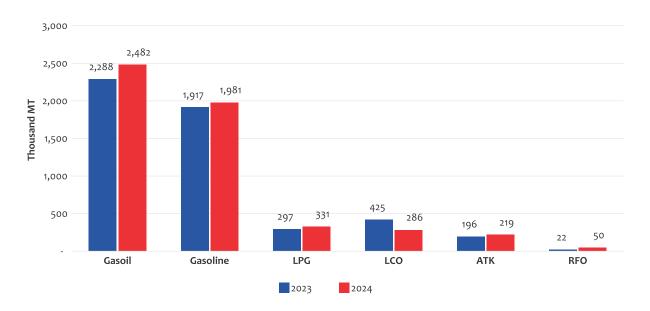


Figure 59: Refined product import

A total of 27 BIDECs (in addition to Sonabhy which transits through Ghana to Burkina Faso) imported products in 2024. Fueltrade imported the highest volume of refined petroleum products, accounting for a quarter of refined imports in 2024. Compared to 2023 volumes, Fueltrade doubled its imports in 2024, underscoring their impressive performance during the year under review.

BOST lost grounds to place second mainly on the back of moderation in G4O imports in 2024. GoEnergy lost further grounds to place 9th, from 6th in 2023 and 1st in 2022. For the past three years GoEnergy has lost 18.4% market share on the back of government utilising BOST as the exclusive importer under the G4O program. Except for Fueltrade, BP Ghana, Juwel Energy, and PWSL, the rest of the top 10 importers lost market share in 2024. PWSL displaced Dominion from the top ten importers in 2024.

For the crude oil space, Sentuo Oil Refinery, Chase Petroleum, Platon Gas Oil, and Akwaaba Oil Refinery imported 70%, 21%, 6%, and 2% respectively for the period under review.

30.0% 24.5% 25.0% 18.9% 20.0% 16.8% 14.5% 14.4% 15.0% 12.4% 10.2% 10.0% 7.0% 7.0% 7.1% 6.7% 5.6% 4.9% 4.3% 3.9% 3.7% 5.0% 2.1% 0.9% 1.4% 0.0% **GO** Energy **Fueltrade BOST BP Ghana** Juwel Maranatha Blueocean Cirrus Stratcon **PWSL** 2023 2024

Figure 60: Top 10 Importers (2024 vrs 2023)

7.7 EXPORTS

A total of 516,432mt of refined products was exported in 2024, representing an increase of 116% from 239,367mt in 2023. This was made up of 313,128mt of gasoline, 103,141mt of LPG, 91,691mt of gasoil, and 8,473mt of RFO (see figure 61). It is highly recommended that the Regulator should develop a comprehensive export manual to guide the exportation of products. The guidelines should restrict issuance of permits for exports only when there is a valid contract to export, and payments or LCs issued by recognised international banks.

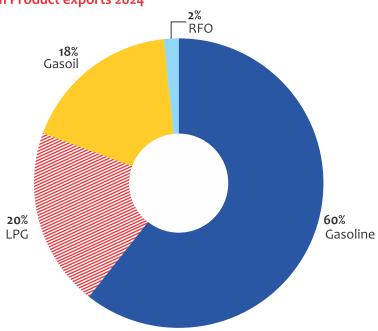


Figure 61: Petroleum Product exports 2024

7.8 PRICING REVIEW

Dated Brent crude prices averaged USD81.03/bbl in 2024, down 2% from 2023. Although prices were influenced by both bullish and bearish sentiments, the bearish sentiments outweighed the bullish sentiments. The downward pressure was mainly on the back of a largely calm geopolitical environment which minimised supply disruptions. Also, slower-than-expected post-pandemic economic growth dampened global oil demand, reinforcing the trend of declining prices.

The biweekly FOB prices of Dated Brent for the year 2024 ranged between USD73.97/bbl and USD90.39/bbl (see Figure 62). The lowest price was recorded in the second window of December while the highest price was recorded in the second window of April. The biweekly FOB price of Dated Brent in 2024 recorded a cumulative decrease of 4%, compared to 2% in 2023.

The biweekly FOB prices of **gasoline** (**petrol**) for the year 2024 ranged between USD675.70/MT and USD942.30/MT, and averaged USD793.82/MT, representing a decrease of 7% from 2023. The lowest price was recorded in the first window of December while the highest price was recorded in the first window of May. The biweekly FOB price of petrol in 2024 recorded a cumulative decrease of 11%, compared to 6% in 2023.

The biweekly FOB prices of **gasoil (diesel)** for the year 2024 ranged between USD658.23/MT and USD871.75/MT, and averaged USD753.92/MT, representing a decrease of 10% from 2023. The lowest price was recorded in the first window of October while the highest price was recorded in the first window of March. The biweekly FOB price of diesel in 2024 recorded a cumulative decrease of 12%, compared to 6% in 2023.

The biweekly FOB prices of **LPG** for the year 2024 ranged between USD438.20/MT and USD643.90/MT, and averaged USD546.16/MT, representing an increase of 4% from 2023. The lowest price was recorded in the second window of June while the highest price was recorded in the second window of March. The biweekly FOB price of LPG in 2024 recorded a cumulative decrease of 1%, compared to an increase of 16% in 2023.

The biweekly FOB prices of **Aviation Turbine Kerosene** (ATK/Jet) for the year 2024 ranged between USD694.23/MT and USD908.40/MT, and averaged USD803.24/MT, representing a decrease of 10% from 2023. The lowest price was recorded in the first window of October while the highest price was recorded in the second window of February. The biweekly FOB price of ATK in 2024 recorded a cumulative decrease of 19%, compared to 6% in 2023.

The biweekly FOB prices of **Residual Fuel Oil** (RFO) for the year 2024 ranged between USD459.07/MT and USD528.10/MT, and averaged USD490.92/MT, representing an increase of 0.3% from 2023. The lowest price was recorded in the first window of October while the highest price was recorded in the second window of April. The biweekly FOB price of RFO in 2024 recorded a cumulative increase of 2%, compared to 7% in 2023.

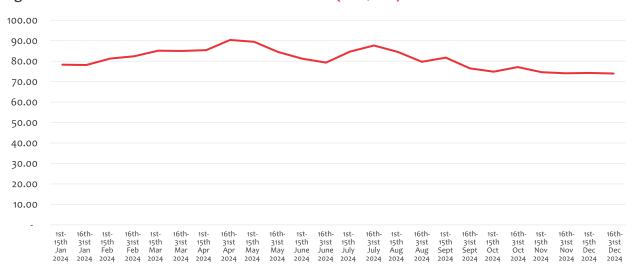


Figure 62: Trend of Dated Brent Crude Oil FOB Prices (USD/BBL)

Figure 63: Trend of Finished Products FOB Prices (USD/MT)

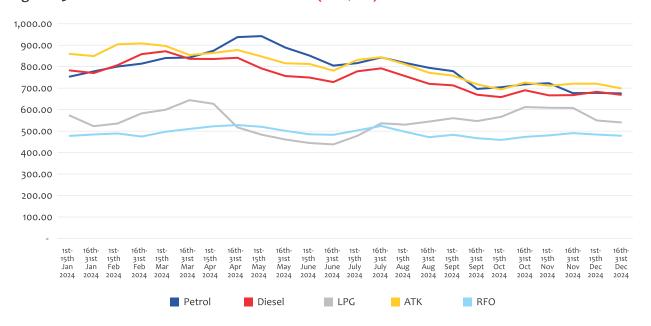


Table 11: 2024 Pricing window FOB Prices (USD/MT except Brent Dated in USD/BBL)

Pricing Window	Petrol	%age Change	Diesel	%age Change	LPG	%age Change	ATK	%age Change	RFO	%age Change	Brent Dated	%age Change
1st - 15th Jan, 2024	753.69	-1.76%	782.78	2.03%	572.39	-0.14%	859.58	0.37%	477.78	0.78%	78.29	-0.23%
16th - 31st Jan, 2024	778.05	3.23%	770.27	-1.60%	522.64	-8.69%	849.30	-1.20%	484.32	1.37%	78.13	-0.20%
1st - 15th Feb, 2024	800.84	2.93%	807.14	4.79%	535.41	2.44%	904.20	6.46%	488.80	0.93%	81.30	4.06%
16th - 28th Feb, 2024	814.05	1.65%	858.33	6.34%	582.50	8.80%	908.40	0.46%	474.50	-2.93%	82.43	1.39%
1st - 15th Mar, 2024	840.43	3.24%	871.75	1.56%	599.48	2.92%	896.50	-1.31%	496.84	4.71%	85.15	3.30%
16th - 31st Mar, 2024	842.53	0.25%	836.38	-4.06%	643.90	7.41%	854.20	-4.72%	509.95	2.64%	85.03	-0.14%
1st - 15th Apr, 2024	874.09	3.75%	835.64	-0.09%	627.30	-2.58%	864.34	1.19%	522.32	2.43%	85.44	0.48%
16th - 30th Apr, 2024	937.68	7.27%	841.38	0.69%	517.38	-17.52%	877.73	1.55%	528.10	1.11%	90.39	5.79%
1st - 15th May, 2024	942.30	0.49%	792.02	-5.87%	483.45	-6.56%	847.73	-3.42%	520.07	-1.52%	89.49	-1.00%
16th - 31st May, 2024	888.81	-5.68%	756.28	-4.51%	460.64	-4.72%	815.75	-3.77%	501.36	-3.60%	84.55	-5.52%
1st - 15th June, 2024	851.73	-4.17%	749.70	-0.87%	444.80	-3.44%	812.48	-0.40%	485.13	-3.24%	81.27	-3.88%
16th - 30th June, 2024	804.93	-5.49%	728.52	-2.83%	438.20	-1.48%	781.55	-3.81%	482.80	-0.48%	79.33	-2.39%
1st - 15th July, 2024	816.61	1.45%	778.32	6.84%	477.80	9.04%	831.43	6.38%	503.05	4.19%	84.70	6.77%
16th - 31st July, 2024	842.98	3.23%	792.32	1.80%	536.11	12.20%	844.23	1.54%	523.89	4.14%	87.69	3.53%
1st - 15th Aug, 2024	817.75	-2.99%	755-93	-4.59%	530.20	-1.10%	811.30	-3.90%	496.48	-5.23%	84.55	-3.58%
16th - 31st Aug, 2024	794.58	-2.83%	720.20	-4.73%	544.28	2.66%	771.63	-4.89%	471.50	-5.03%	79.72	-5.71%
1st - 15th Sept, 2024	779.10	-1.95%	712.88	-1.02%	559.95	2.88%	758.40	-1.71%	482.88	2.41%	81.75	2.55%
16th - 30th Sept, 2024	696.38	-10.62%	669.44	-6.09%	546.50	-2.40%	717.65	-5-37%	466.85	-3.32%	76.53	-6.39%
1st - 15th Oct, 2024	704.00	1.09%	658.23	-1.67%	566.36	3.63%	694.23	-3.26%	459.07	-1.67%	74.87	-2.17%
16th - 31st Oct, 2024	718.02	1.99%	690.32	4.88%	612.07	8.07%	726.18	4.60%	473.14	3.06%	77.14	3.03%
1st - 15th Nov, 2024	723.03	0.70%	666.38	-3.47%	608.65	-0.56%	710.85	-2.11%	480.08	1.47%	74.63	-3.25%
16th - 30th Nov, 2024	676.64	-6.42%	667.61	0.18%	607.98	-0.11%	720.52	1.36%	490.50	2.17%	74.09	-0.72%
1st - 15th Dec, 2024	677.82	0.17%	682.93	2.29%	549.39	-9.64%	720.64	0.02%	483.93	-1.34%	74.27	0.24%
16th - 31st Dec, 2024	675.70	-0.31%	669.23	-2.01%	540.41	-1.63%	698.95	-3.01%	478.64	-1.09%	73.97	-0.40%
Min	675.70		658.23		438.20		694.23		459.07		73-97	
Max	942.30		871.75		643.90		908.40		528.10		90.39	
Average	793.82		753-92		546.16		803.24		490.92		81.03	
Total Decreses		-42.22%		-43.40%		-60.58%		-42.88%		-29.44%		-35.59%
Total Increases		31.45%		31.40%		60.04%		23.94%		31.40%		31.14%
Net Change		-10.77%		-12.00%		-0.53%		-18.95%		1.96%		-4.44%

7.9 **EXCHANGE RATE**

The BoG Interbank exchange rate of the Ghana Cedi against the USD generally traded high throughout 2024. The average USD/GHS exchange rate monitored from the **Bank of Ghana** for the period ranged between USD/GHS11.6483 and USD/GHS16.3022, averaging USD/GHS14.0207. The average USD/GHS for 2024 depreciated significantly by 23% from the USD/GHS10.8593 recorded in 2023. The lowest exchange

rate was recorded in the first window of January while the highest exchange rate was recorded in the second of November.

The average USD/GHS exchange rate monitored from selected **Commercial Banks (Absa, Stanbic and Standard Chartered)** for the period ranged between USD/GHS12.0171 and USD/GHS16.4167, and averaged USD/GHS14.4323. The lowest exchange rate was recorded in the second window of January while the highest exchange rate was recorded in the second window of November. The average commercial banks' exchange rate monitored throughout the year depreciated by 18% from 2023. The spread between the BOG Interbank rate and the Market rate averaged GHS0.41 in 2024, down from the GHS0.99 recorded in 2023.

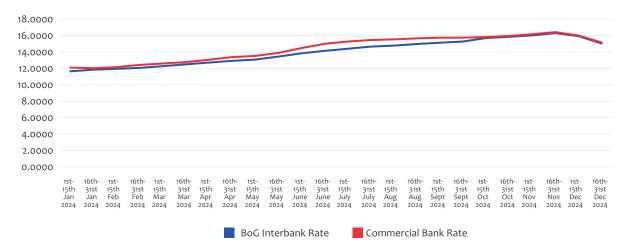


Figure 64: Trend of USD/GHS Exchange Rate in 2024

7.10 EX-REFINERY PRICES

The year under review saw the average biweekly ex-refinery price for petrol range between GHS8.78/Lt and GHS11.34/Lt, and averaged GHS10.06/Lt. The average ex-refinery price in 2024 increased by 6% from 2023. The lowest ex-refinery price was recorded in the first window of January while the highest was recorded in the first window of December. The ex-refinery price of petrol recorded a net increase of 22% in 2024, compared to a decrease of 0.75% in 2023. The ex-refinery price of petrol constituted 74% of the average ex-pump price for 2024.

The average biweekly ex-refinery price for diesel ranged between GHS9.15/Kg and GHS12.03/Kg, and averaged GHS10.58/Kg. The average ex-refinery price in 2024 increased by 6% from 2023. The lowest ex-refinery price was recorded in the first window of January while the highest was recorded in the first window of December. The ex-refinery price of diesel saw a net increase of 17% in 2024, compared to a decrease of 15% in 2023. The ex-refinery price of diesel constituted 74% of the average ex-pump price for 2024.

The average biweekly ex-refinery price for LPG ranged between GHS9.40/Lt and GHS15.68/Lt, and averaged GHS11.90/Lt. The average ex-refinery price in 2024 increased by 31% from 2023. The lowest ex-refinery price was recorded in the first window of January while the highest was recorded in the first window of November. The ex-refinery price of LPG recorded a net increase of 44% in 2024, compared to 12% in 2023. The ex-refinery price of LPG constituted 77% of the average ex-pump price for 2024.

18.0000 16.0000 14.0000 12.0000 10.0000 8.0000 6.0000 4.0000 2.0000 16th-16th-1st-15th June 16th-16th-1st-15th Aug 2024 16th-15th Mar 31st Mar 15th 31st Apr 15th May 31st May 31st June 31st July Apr 2024 2024 2024 2024 2024 Petrol Diesel LPG

Figure 65: Trend of Ex-Refinery Prices for 2024 (GHS/Lt;Kg)

7.11 EX-PUMP PRICES

The average biweekly ex-pump price of **petrol** in the year 2024 ranged between GHS11.82/Lt and GHS14.72/Lt, and averaged GHS13.62/Lt, up 7% from 2023. The lowest price was recorded in the first window of January while the highest price was recorded in the first window of November. The biweekly ex-pump price of petrol in 2024 recorded a net increase of 20%, compared to a decrease of 4% in 2023.

The average biweekly ex-pump price of **diesel** for the period ranged between GHS12.73/Lt and GHS15.31/Lt and averaged GHS14.21/Lt, up 8% from 2023. The lowest price was recorded in the second window of January while the highest price was recorded in the second window of December. The average biweekly ex-pump price of diesel in 2024 recorded a net increase of 18%, compared to a net decrease of 18% in 2023.

The biweekly average ex-pump price of **LPG** for the period ranged between GHS12.32/kg and GHS18.96/kg, and averaged GHS15.55/kg, up 24% from 2023. The lowest price was recorded in the first window of January while the highest price was recorded in the first window of November. The biweekly ex-pump price of LPG in 2024 recorded a net increase of 45%, compared to a net decrease of 13% in 2023.

Figure 66 presents a graphical representation of the trend of the ex-pump prices of gasoline, gasoil, and LPG in the year 2024.

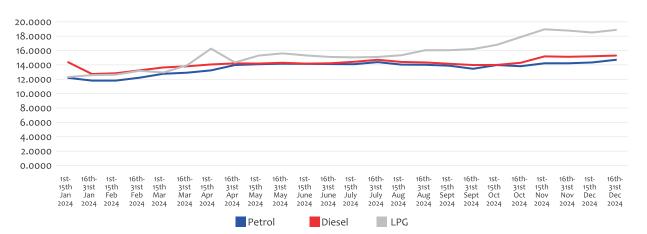


Figure 66: Trend of Ex-Pump Prices for the year 2024 (GHS/Lt;Kg)



MARKET REVIEW

8.1 BULK OIL STORAGE DEPOT

Total petroleum product and crude storage capacity in 2024 stood at about 2,778,529 m³, same as it was in 2023. This means that there was no additional storage capacity added in 2024. The current storage capacity in the country comprised 2,095,233 m³ of refined petroleum products (75.41% of total capacity) and 683,296 m³ crude oil (24.59% of total storage capacity).

The country's gasoil storage capacity is about 821,317 m 3 (29.56%) with gasoline storage capacity at about 986,586 m 3 (35.51%) and LGP storage at 72,187 m 3 (2.60%).

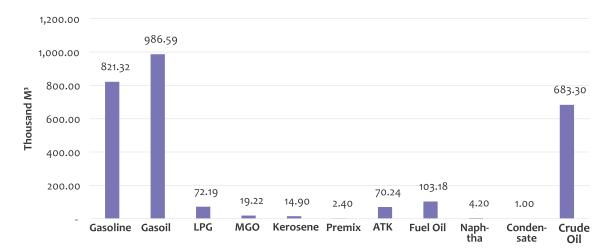


Figure 67: Product Distribution of Bulk Oil Storage Capacity in 2024

Share of ownership of storage facilities in the country between government and private sector is 54.18% and 45.92% respectively (see figure 68). The share of the private sector increased from 37% in 2022 to the current 45.92% due to the commissioning of the Sentuo Oil Refinery Ltd (SORL) with an installed capacity of 305,436 m3 in 2023.

The dominance of government entities is driven by the crude storage capacity held by the Tema Oil Refinery, being 1,040,537 m3 (66.59% of crude oil storage capacity). In the refined product storage capacity space, the private sector controls about 49.87% while government entities comprising of TOR and BOST controls about 50.13%.

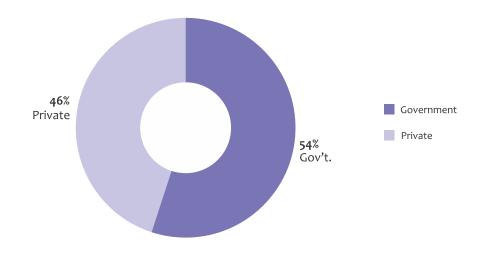


Figure 68: Ownership of storage facilities in 2024

The Tema Oil Refinery has storage capacity for all refined petroleum products and currently accounts for 69.12% of government-held depots across the country. TOR currently has about 59 storage tanks of which 15 tanks are currently under maintenance. TOR also holds 100% of the storage capacity of premix in the country. However, BOST is the most decentralized depot operator in the country. BOST owns about 29.01% of government-held storage depots, while Ghana Gas account for the least share (0.6%).

The private sector controlled about 33.41% of the crude oil storage capacity and 49.87% of refined product storage capacity in 2024. The Sentuo Oil Refinery which came on stream in 2023 accounts for 23.99% of privately held capacity, while Tema Tank Farm (TTF), Tema Fuel Company (TFC), Petroleum Hub, and Tema Multi-product Terminal accounted for 12.27%, 8.72%, 9.66% and 9.21% of privately held capacity in the bulk oil storage depot category (see figure 69).

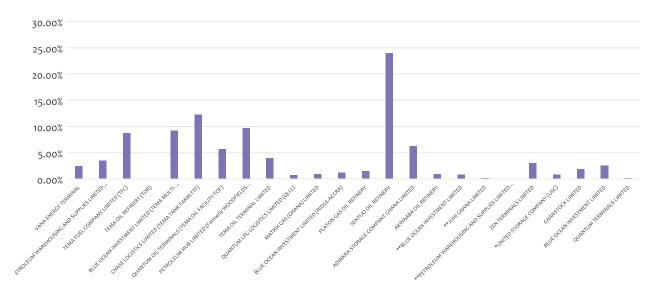


Figure 69: Privately Held Stake of Bulk Oil Storage Capacity in 2024

The geographical distribution of Ghana's storage infrastructure has been skewed towards the Greater Accra region, which is a host to about 87.05% of national bulk oil storage for both crude oil and refined products. The Tema enclave alone host about 99.06% of Greater Accra's storage capacity while the remaining 0.4% is located at the Kotoka airport, which hosts ATK storage tanks.

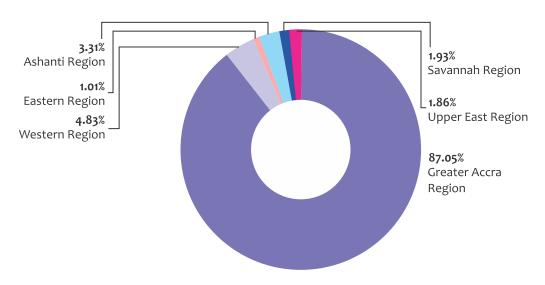


Figure 70: Regional distribution of storage capacity

The Western and Ashanti regions accounted for 4.83% and 3.31% respectively, while the Eastern region had the least (1.02%) storage capacity (see figure 70). The concentration of storage facilities in the Greater Accra region continues to impact the Unified Petroleum Pricing Fund (UPPF) and the Zonalization policy. Moreover, the rising concerns of security threats in the sub-region calls for increased security surveillance within the Tema enclave to avert any form of attacks.

It is worthy to note that petroleum products consumption is the middle and northern sectors have increased significantly over the years. However, storage facilities have been highly skewed to the southern sector. These continue to impact on the zonalisation policy leading to cross-zonal loading, which ultimately impacts the UPPF. It is recommended that government should incentivised the private sector to invest in storage facilities in the middle and northern sectors with interconnected pipelines for transfer of petroleum products from the depots in the southern middle and northern sectors. BOST should also be mandated to construct additional storage facilities in the middle and northern sectors to enhance the "one BOST system". Moreover, despite the ultra-modern mooring facility in the western region, storage and pipeline infrastructure is highly inadequate. This also calls for government to incentivise private sector players to invest in storage and pipeline facilities in the western region.

In addition, the persistent inadequacy of mooring facilities has created recurring congestion of vessels at the ports, undermining operational efficiency and inflating costs across the downstream petroleum value chain. The resulting demurrage charges have become a significant financial burden on industry players, particularly BIDECs, eroding profit margins and distorting pricing structures. To address this structural bottleneck, it is recommended that the policy restriction on the construction of mooring facilities be reviewed and lifted. Allowing for the development of additional mooring infrastructure within the Tema enclave would enhance port efficiency, reduce turnaround times, and ultimately mitigate the high demurrage costs that continue to constrain the competitiveness of the industry.

8.2 PETROLEUM PRODUCTS RETAIL OUTLETS

The number of petroleum product retail outlets increased by about 4.56% from 5,047 in 2023 to 5,276 in 2024 (see figure 72). Service stations accounted for the highest share (50%) of the retail outlets across the country. Filling stations, LPG refilling plants, and reseller outlet accounted for 32%, 15%, and 2% respectively (see figure 71). Following the policy initiative of the NPA to decommission all reseller outlets in metropolitan and municipal areas, the number of reseller outlets decreased from 117 to 108 in the period, after reducing by 16% in 2023. Reseller outlets are outlets with hand-pump dispensing units. The year 2024 also saw establishment of five Autogas outlets and nine cylinder distribution outlets for the CRM.

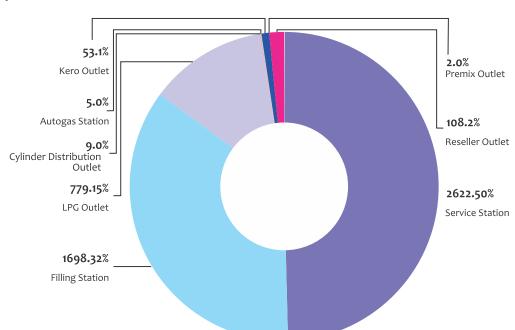
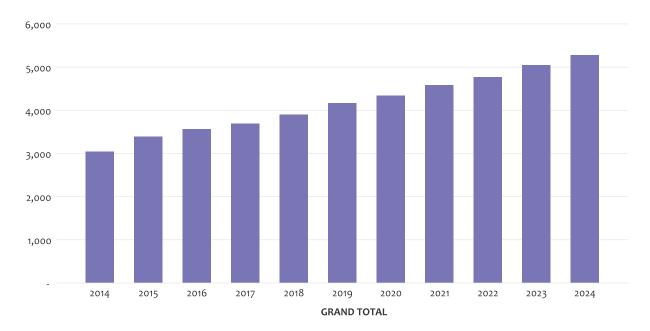


Figure 71: Distribution of Petroleum Retail Outlets in Ghana

Figure 72: Trend of Retail outlets from 2014 to 2024



The Greater Accra region is home to over a fifth (21%) of petroleum retail outlets in the country, followed by the Ashanti region (17%), Central (11%), Eastern region (9%), and the Western region (8%) concluding the top five regions with the highest number of retail outlets (see figure 73). As expected, these top five regions consumed the highest volumes of refined products. The North East accounted for the least (1.05%) share of retail outlets in the country for the period under review. The Western Region however, host about 32% of the Reseller outlets in the country, followed by the Ashanti and Oti regions with 13% and 11% respectively (see figure 74). This calls for extra effort by the Regulator to phase out these retail outlets to ensure safety and consumer welfare.

Figure 73: Regional Distribution of Petroleum Retail Outlet in Ghana

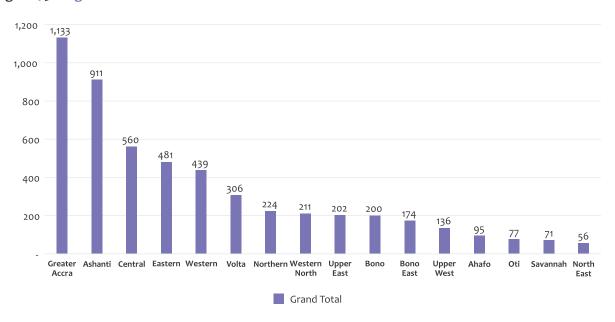
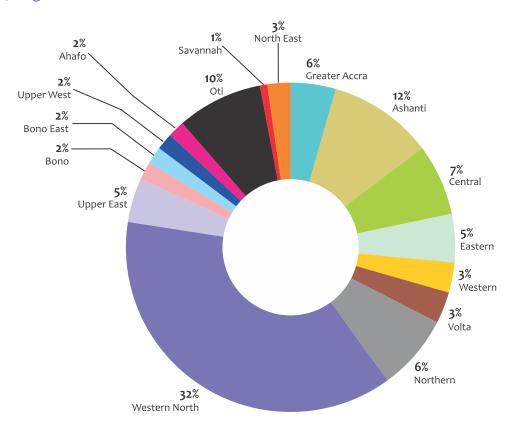
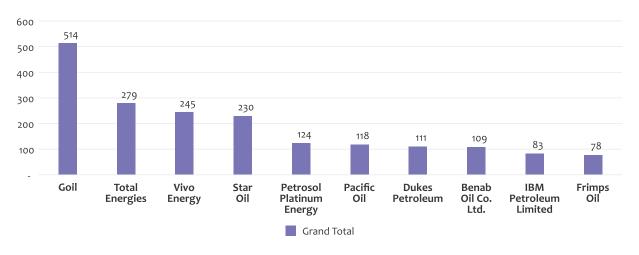


Figure 74: Regional Distribution of Reseller Outlet in Ghana



Goil has the highest number of retail outlets (514) across the country, followed by TotalEnergies with 279 outlets and Vivo energy with 245 outlets. Star Oil is placed 4th with 230 outlets, whiles Frimps Oil being the 10th OMC with the most number of retail outlets having 78 outlets (see figure 75). The data shows that about 154 OMCs have less than fifteen retail outlets. This emphasis the continuous calls for the restriction on the number of OMCs in the country.

Figure 75: Top 10 OMCs by number of retail outlets in Ghana



8.3 ZONALISATION POLICY AND CROSS-ZONAL LIFTINGS

Policy Overview

In 1998, the government of Ghana explored the idea of decentralising the distribution of petroleum products – primarily to combat fraud in the supply chain and mitigate its adverse impact on the Unified Petroleum Price Fund (UPPF). Since then, the zonalisation policy, as it came to be called, has undergone two major revisions, first in March 2015 and later in November 2021. This policy utilises a network of depots, managed by the Bulk Oil Storage and Transportation Company (BOST), to streamline fuel distribution and ensure consistent regional availability.

Under the zonalisation policy framework, all 16 regions of Ghana are assigned to designated depot-zones based on geographical proximity. These depot-zones, with a combined storage capacity of approximately 452,610 cubic meters, are strategically located as follows: Tema (211,000 m³), Kumasi (91,947 m³), Akosombo (12,156 m³), Buipe (51,780 m³), Takoradi (32,000 m³), and Bolgatanga (53,727 m³).

Across the country, the petroleum distribution system is run on a two-tier model: primary and secondary. Primary distribution (aka inter-depot transfer) relies on a combination of pipelines and river barges to facilitate product movements among four key depots: Tema, Akosombo, Buipe and Bolgatanga. The Kumasi depot, however, operates differently, relying mainly on bulk road vehicles (BRVs) for petroleum transport – due to its inland location. Secondary distribution in contrast is managed exclusively by licensed oil marketing companies (OMCs), who transport products from designated depots to retail outlets using BRVs.

A distinctive feature of Ghana's zonalisation policy is its structured approach to petroleum product distribution. Under this framework, Bulk Import Distribution and Export Companies (BIDECS) along with local oil refineries, are required to first deliver petroleum products into BOST's depots in the Tema zone before accessing them in any other zone – for sales to OMCs, operating freely across firms (e.g. BIDECS) and locations (e.g. regions) – while adhering strictly to depot-zone assignments (nearest depot). This coordinated movements of petroleum products, often referred to as the 'one-system rule', forms the backbone of the zonalization framework. By way of operations, the policy applies the following guidelines:

- 1. BIDECS, Refineries, and BOST shall endeavour to always stock the depots.
- 2. BIDECS, Refineries, and BOST should deliver petroleum products into the BOST system if such petroleum service providers (PSPs) intend to sell outside the Tema zone.
- 3. Supplies to OMC retail outlets should be obtained from the nearest zonal depots nationwide.
- 4. Loading at all depots shall be on first-come-first-served, based on the ordering and approval times as captured in the Enterprise Relational Data Management System (ERDMS).
- 5. The payment of freight claims for the delivery of petroleum products under the UPPF shall only be honoured if loading is done from the nearest zonal depots unless prior cross zonal authorisation for supplies from an alternative depot was obtained from the NPA.

Policy Exemptions

Recognising the complexity and operational realities of the zonalisation framework, the policy grants exemptions for certain temporary cross-zonal activities under specific conditions. These conditions include the availability of alternative transport modes and cases where primary distribution costs closely align with the secondary distribution costs under the UPPF.

For example, the Kumasi depot receives products exclusively via Bulk Road Vehicles (BRVs) for onward distribution within its zone. The transportation cost of petroleum products from Tema to Kumasi under the Primary Distribution Margin (PDM), is comparable to the cost of distributing same products within the Kumasi metropolitan area under the UPPF. To minimize double handling and reduce overall freight costs, the policy permits the direct transportation of gasoline and gasoil from Tema to Kumasi and its surrounding MMDAs within a 285km radius.

Similarly, the Buipe depot receives gasoline via BRVs, with primary distribution costs roughly equivalent to those under the UPPF. Therefore, the policy allows OMCs to transport gasoline directly from Tema to Buipe, to ensure cost effectiveness.

Cross-zonal Liftings: Patterns And Frequency

Despite its strategic design and targeted exemptions, the policy has increasingly faced criticisms for contributing to artificial shortages and market inefficiencies. This review employs two approaches: a blinded approach, which disregards current exemptions, and a restrictive one, which incorporates them. The objective is to specifically examine the prevalence of cross-zonal liftings, defined as instances where petroleum products are lifted from depot zones other than those officially assigned. The analysis is also limited to gasoline and gasoil, the two most widely consumed products in Ghana, accounting for 75% of total refined products in 2024.

Trends in Cross-zonal Liftings

Using the blinded approach, Figure 76 illustrates the overall trend in product liftings from 2021-2024, comparing the number of liftings from all four designated depot zones with those that were crosszonal. Each year, within-zone liftings exceeded cross-zonal liftings for both gasoline and gasoil. However, cross-zonal liftings saw a significant increase, with the year-on-year increase peaking at 27.4% in 2023 before declining to 21.6% in 2024.

A similar pattern emerges in the restrictive approach, which excludes MMDAs with authorisation to load from Tema to the Kumasi zone (radius = < 285km). Figure 77 reveals that in 2024, nearly a third (30%) of all liftings to non-exempted MMDAs were cross-zonal, up from 28% in 2023. This translates to an increase from 53,068 in 2021 to 96,926 in 2024 (blinded approach) and from 1,643 to 7,283 over the same period for the restrictive one. These trends strongly indicate a systematic increase in the challenges confronting the implementation of the policy.

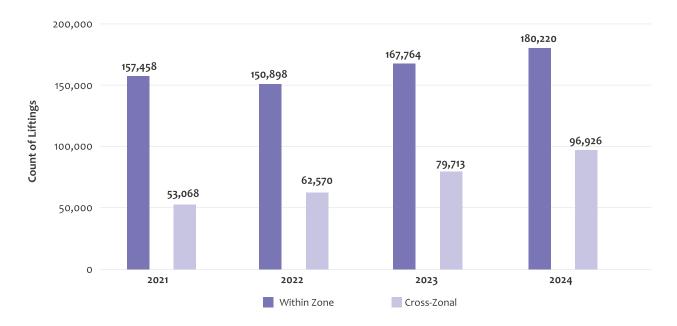
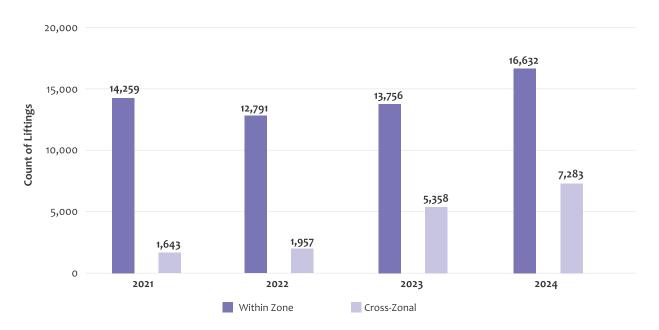


Figure 76: Count of Within and Cross-zonal Liftings among all Four Depot-zones (2021-2024)

Figure 77: Count of Within and Cross-zonal Liftings among selected MMDAs (radius > 285km) in the Kumasi depot zone

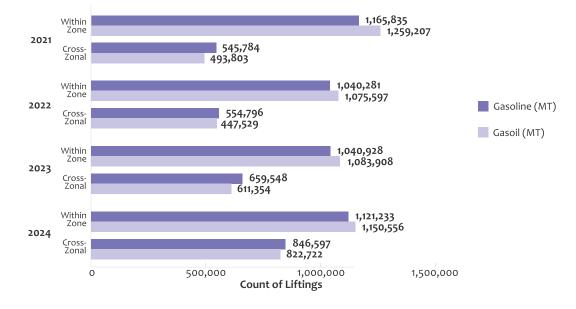


Depot-zone and Volume Variations

Across Ghana's five designated depot zones for petroleum product distribution, cross-zonal liftings showed considerable disparity. The Kumasi depot recorded the highest prevalence of cross-zonal liftings, averaging 43.1% followed by the Takoradi depot zone at 32.2%. In contrast, the Tema zone reported a negligible share of cross-zonal activity (0.2%), while the Buipe and Bolgatanga zones recorded a moderate prevalence level at 14.1% and 10.5% respectively. This prevalence likely signals growing operational challenges in the policy framework.

These cross-zonal activities in terms of volumes (figure 78), translate to approximately 846,597 MT and 822,722 MT of gasoline and gasoil respectively. The peak year for both within and cross-zonal liftings was 2021, with average volumes reaching 1.25 mn MT for gasoil and 1.16 mn MT for gasoline. Although gasoline and gasoil accounted for similar overall volumes, gasoline consistently accounted for higher volumes for cross-zonal liftings whereas gasoil showed an opposite trend over the four-year period.

Figure 78: Within and Cross-zonal Liftings by Product Type in Metric Tonnes (2021-2024)



Policy Considerations

The absence of clearly defined thresholds for cross-zonal activities under the current zonalisation framework, makes it hard to fully measure the policy's effectiveness. A crucial challenge confronting the zonalisation policy is the inability of BOST to properly construct a network of pipelines to interconnect its depots across the zones. Moreover, BOST does not have a depot in the Western Zone for the operation of the zonalisation policy. Operational inefficiencies in BOST are also well-known to be among the challenges confronting the operationalisation of the zonalisation policy being implemented exclusively by BOST.

This review suggests a high level of non-adherence to the policy, potentially driven by various supply and operational challenges. The need for a detailed assessment of the zonalisation policy, its challenges and overall utility has become increasingly apparent. Such thorough evaluation, however, should, in principle, incorporate key metrics of operational efficiency such as compliance with zonal assignments, turnaround time for product distribution, depot utilization rates, and stock variabilities across designated zones.



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