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BADAWI'S BLUEPRINT

A New Era for Egypt's Energy Sector

Exclusive Interview With **H.E. Eng. Karim Badawi**
Minister of Petroleum and Mineral Resources

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Editor's Letter

Dear Reader,

As we embark on a new year, the January issue of Egypt Oil & Gas Newspaper offers a detailed overview of what has been an exceptionally progressive year for Egypt's energy sector. The resilience of this sector in the face of numerous challenges has been nothing short of remarkable. Guided by tireless efforts, strategic vision, and innovative solutions, the industry has not only navigated obstacles but also transformed them into opportunities, setting the stage for a brighter future.

This issue is particularly special as we bring you an exclusive interview with Minister of Petroleum and Mineral Resources, Karim Badawi. The minister shares his visionary outlook for the sector, reflecting on the achievements of the past year and outlining the strategies poised to drive continued growth and sustainability. This rare insight from the sector's leadership underscores the commitment to advancing Egypt's position in the global energy landscape.

Our team of expert writers has also delved deep into the energy scene of 2024, offering thorough analysis of the updates in production, groundbreaking technologies, and forward-thinking strategies that have been adopted to strengthen the sector's foundations. Additionally, we examine the political and economic trends that shaped 2024 and provide valuable insights into what to expect in 2025, ensuring that our readers are well-prepared for the challenges and opportunities that lie ahead.

Furthermore, our research and analysis team presents a compelling overview of the investment environment within Egypt's energy sector. With data-driven insights and expert commentary, this piece sheds light on the sector's appeal to both domestic and international investors, highlighting the potential for growth and innovation.

We hope you find this issue as insightful and engaging as we intended it to be. As always, our goal is to keep you informed, inspired, and connected to the dynamic world of energy in Egypt and beyond.

Wishing you a year of prosperity, innovation, and success.

Happy reading!

Ihab Shaarawy
Managing Editor

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MONTHLY PUBLICATION

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TOP 5

Cabinet Approves 2 Oil, Gas Draft Agreements

The Cabinet, headed by Prime Minister Mostafa Madbouly, approved, on December 11th, two draft oil and gas commitment agreements with the Egyptian Natural Gas Holding Company (EGAS), the Egyptian General Petroleum Corporation (EGPC), and a number of international companies.

The first agreement is to search for and exploit natural gas and crude oil in the East Port Said marine area in the Mediterranean Sea.

Meanwhile, the second agreement is to search for and exploit oil in East of El Obeid area in the Western Desert, with a minimum investment for the two agreement projects estimated at approximately $133.8 million, in addition to drilling a minimum of four wells, and several training grants.

Bidding Opens for West Gharib-G Block in Gulf of Suez

Egypt Upstream Gateway (EUG) announced that the West Gharib-G- Block in the Gulf of Suez, in the General Petroleum Company (GPC), has officially been booked and is now open for bidding.

The announcement stated that the bidding period is open from the 10th of December until 12:00 PM (noon) Cairo local time on 9th January 2025.

Dana Gas Receives $20 Million Payment in Egypt

Dana Gas Company announced that it has received about $20 million payment from the Egyptian Government. This amount takes the funds received in Egypt in Q4 2024 to $24.5 million.

This payment, which will be reinvested in the Company's existing operations in Egypt, will allow the it to proceed with its planned investment program, a major milestone for the Company's operations in Egypt.

The program is part of the Consolidation Agreement negotiated with the Egyptian Government and expected to be formally signed shortly.

The agreement, which was ratified by the Egyptian Parliament in early June, is part of the government's strategic initiative to support Egypt's energy sector and increase domestic gas production. Dana Gas will also require future regular monthly payments from the Egyptian Government to ensure all phases of the program will be completed.

The new agreement will see the Company consolidate its existing producing concessions into a single concession with improved terms, which will enhance the economics of any future exploration and development activities.

The work program is expected to increase ultimate gas recovery by 80 billion cubic feet (bcf) including six exploration and five development wells, and significantly increase the value of Dana Gas Egypt assets.

This initiative will extend the life of Dana Gas's assets in the country, and yield cost savings of over $1 billion for Egypt's economy by reducing reliance on imported LNG and mazut for power generation.

ExxonMobil Unveils Plans for New Gas Exploration Well in West Mediterranean

ExxonMobil officials revealed plans to drill a new exploratory well for natural gas in the West Mediterranean area, slated to commence in mid-December. The announcement was made during a meeting between the company's officials and Minister of Petroleum and Mineral Resources Karim Badawi, held on the sidelines of the BEBA event.

Company officials expressed their desire to meet with the Egyptian President to present their investment plans in Egypt, with the aim of enhancing their involvement in well exploration and development in the country.

During the meeting with Minister Badawi, they discussed key areas of cooperation, particularly the company's activities and plans in exploration and field development. They emphasized the opportunity to export future production volumes through Egypt's robust infrastructure. Additionally, they addressed the profit-sharing mechanism and pricing ceiling for the produced gas, aiming to develop a mutually beneficial formula.

Both parties also expressed their intention to sign a letter of intent during the upcoming Egypt Petroleum Show (EGYPTS) conference and exhibition, reaffirming their commitment to strengthening joint cooperation.

GPC Successfully Maximizes Production from Unconventional Reservoir, Develops Local Demulsifier

The General Petroleum Company (GPC) announced that it has succeeded in increasing its production from the Eocene reservoir, which is known to be an unconventional reservoir, by using acid activation technique.

The company's work team succeeded in using a new method to pump acid at specific rates at specific distances and with a specific direction. This led to maximizing the productivity of the Eocene reservoir in the FF area, so that Eocene production rose to an initial production exceeding 700 barrels per day (bbl/d) after its production on that offshore platform reached zero.

Mohamed Abdel Mageed, the Chairman of the company, explained that this success is due to the complete integration between the company's existing expertise and the use of modern technologies, as the company's expertise developed some electrical recordings and combined them to develop a new recording – known as iCore – which was used for the first time in the world in the fields of the General Petroleum Company, which contributed to a better understanding of the nature of the reservoirs and then optimal use of acid activation.

This success story opens the way to repeating it to maximize production from the Eocene reservoir, which is one of the most important reservoirs that companies operating in the petroleum sector need to produce from.

Additionally, Abdel Mageed explained that the company has achieved another achievement, as it succeeded in developing a local demulsifier using mostly local raw materials.

A BLAST FROM THE PAST

In January 1886, Egypt made a groundbreaking discovery by drilling its first oil well, Gemsa D-1, in the Eastern Desert. This well marked the beginning of Egypt's petroleum industry, setting the stage for other major oil discoveries and attracting foreign investments.

It dates to 1869 when the French company Société Soufrière des Mines de Gemsah et de Ranga found oil seeps at Ras Gemsah while searching for sulphur. Recognizing the potential, the Egyptian government brought in foreign experts and imported machinery to explore the area.

In February 1886, an oil spring reached a depth of 32 meters, producing a small quantity of petroleum. But the second well was highly productive yielding 500 cubic meters daily of oil.

In 1907, the Egyptian Oil Trust Ltd, registered in London by Messrs Light and Fulton with a capital of £100,000, acquired 100 square miles of territory west of the Red Sea, including the waters of the Suez Canal.

By 1909, the company had successfully produced a large amount of oil from Ras Gemsah at a depth of 1287 feet. The well was producing two barrels of oil per minute.

Hence, Ras Gemsah became a very important source of oil to the country and attracted foreign companies like Shell and BP to invest in the neighboring areas. As a result, Storage tanks, with an aggregate capacity of about 100,000 tons, were established at Gemsah, Hurghada, and Suez where the crude oil is converted into commercial products in a refinery at Suez, with a processing capacity of 1200 tons a day.

UNDER THE Limelight

Estimated Minimum Investments for 2 Agreements

$ 133.8 MILLION

Cabinet Greenlights Agreements to Stimulate Growth

On December 11, 2024, the Egyptian Cabinet approved two draft oil and gas commitment agreements with the Egyptian Natural Gas Holding Company (EGAS), the Egyptian General Petroleum Corporation (EGPC), and several leading international companies. The first agreement pertains to the exploration and exploitation of natural gas and crude oil in the East Port Said offshore area in the Mediterranean Sea. The second focuses on crude oil exploration and exploitation in the East Al-Abiad area in the Western Desert. Alongside the drilling of at least four wells and the provision of several training grants.

These agreements are part of the Ministry of Petroleum and Mineral Resources' (MoPMR) efforts to enhance crude oil and natural gas research, exploration, creating a favorable investment environment and encouraging partners to direct more investments, ultimately leading to increased production.

Notably, the MoPMR announced that seven significant agreements have been signed in the first 10 months of 2024, with signature bonuses of $ 13.5 million, and a minimum investment of $ 367.5 million, alongside an obligation to drill at least 32 wells.

PRODUCTION

Petrobakr Begins Drilling at Arta 92 Well, Targeting 350 bbl/d Production

Petrobakr Petroleum Company announced the commencement of development drilling at the Arta 92 well, targeting a depth of 4,000 feet. The well is expected to begin production at a rate of approximately 350 barrels of oil per day (bbl/d) upon the completion of drilling operations.

This announcement was made during a visit by Minister of Petroleum and Mineral Resources, Karim Badawi, to the company's fields in the Ras Gharib concession area, Red Sea. The visit was part of the Minister's efforts to monitor the implementation of work programs aimed at increasing oil and natural gas production rates.

SUCO Surpasses Production Targets at Ras Badran

The Suez Oil Company (SUCO) has achieved distinguished progress at Ras Badran field, as it increased its production by 3,800 barrels of oil equivalent per day (boe/d) reaching to 7,500 boe/d compared to the initial plan of production of 3,100 boe/d during during three months of operations.

This progress is made due to intensive operation after activating the agreement with ADES Company (the contractor) on the 1st of August, and the drilling rig began operating on the 5th of September.

The steps to achieve the increase included repairing the damaged wells, drilling and processing operations without using a drill to accelerate the increase in production rates and testing the Matla layer. The initial results of testing the Matla layer in well RB-A3b were promising at 1,750 barrels of oil per day (bbl/d), which added a new dimension to production capabilities, as well as development well plans and developing the Matla layer in the Ras Badran field. This is in addition to drilling an exploratory well targeting the southwestern region of the field.

The future plans include adding a land rig to work in the Gebel El Zeit field, in addition to operating another offshore rig at Ras Badran, with the aim of reaching production rates of approximately 10,000 bbl/d, which would achieve more than three times the primary production line.

ACHIEVEMENTS

PMS Completes Strategic Development Project for Shoab Ali Oil Field

Petroleum Marine Services Company (PMS) announced that it completed the development project for Shoab Ali oil field which is one of the strategic projects to enhance production in the southern fields of the Gulf of Suez Petroleum Company (GUPCO).

PMS has implemented a new 18-inch offshore pipeline to connect the Shoab Ali offshore platform to Ras El-Ush field, with the aim of supporting the efficient transportation and production of crude oil from the southern fields.

This project was implemented by using advanced technologies to improve production efficiency and enhance operational processes in the area, using the company's marine units equipped with the latest international technologies.

First Batch Graduates from Zohr School for Applied Technologies in Port Said

The Minister of Petroleum and Mineral Resources, Karim Badawi, attended the graduation ceremony of the first batch from the Zohr School for Applied Technologies in Port Said. The event was also attended by the Minister of Education and Technical Education, Mohamed Abdel Latif, Port Said Governor Moheb Habashi, Italian Ambassador to Cairo Michele Quaroni, and several other officials.

The graduation ceremony celebrated the achievements of 240 graduates. During his speech, Minister Badawi emphasized that the initiative marks a vital step toward investing in human capital, which serves as a cornerstone for development and the energy industry.

EGAS Wins 1st Place in OAPEC Scientific Awards 2022 in Decarbonization

On the sidelines of the 113th Ministerial Meeting of the Organization of Arab Petroleum Exporting Countries (OAPEC), a team from the Egyptian Natural Gas Holding Company (EGAS) was honored for winning the first place of the OAPEC Scientific Award 2022 in the field of 'Decarbonization Technologies in the Petroleum Industry and the Circular Carbon Economy'.

The research was submitted under the title 'Decarbonization and Circular Carbon Economy in the Oil and Gas Field Implications for OAPEC Countries'.

The award comes as a continuation of the organization's policy towards encouraging scientific research and researchers and publishing scientific research in areas that could contribute to the development and improvement of industries related to petroleum and energy in all their forms in the Arab world.

The research offers a comprehensive analysis of the circular carbon economy, detailing various technologies for decarbonization and emission reduction in the oil and gas industries. This is presented within the context of the urgent need to combat global climate change and aligns with international efforts to achieve carbon neutrality by 2050.

Additionally, the study provides an overview of global carbon emission rates and their sources across different stages of oil and gas production and manufacturing.

DECARBONIZATION

Strategic Cooperation: Egypt and U.S. Sign Agreement to Combat Methane Emissions

Karim Badawi, Minister of Petroleum and Mineral Resources; Herro Mustafa Garg, U.S. Ambassador to Cairo; and Ambassador Dr. Sameh Abu El-Enein, Assistant Minister of Foreign Affairs for American Affairs, attended the signing ceremony of a grant agreement provided by the U.S. Trade and Development Agency (USTDA). The grant, valued at $959,006, will be allocated to the Egyptian General Petroleum Corporation (EGPC) to develop a roadmap for reducing methane emissions in Egypt's petroleum sector, in collaboration with the global consultancy firm S&P Global.

The agreement was signed by Salah Abdel Kerim, the Chairman of EGPC and Enoh Ebong, Director of USTDA.

AFC Signs 3 Agreements to Reduce Carbon Emissions

Minister of Petroleum and Mineral Resources Karim Badawi witnessed signing three agreements for developing plants of Abu Qir Fertilizers and Chemicals Industries Company (AFC), which enhances sustainability and reduces carbon emissions, aligning with the European standards of emissions, specifically with applying CBAM mechanism.

The first agreement was signed by Abed Ezz El Regal, Chairman & Managing Director of AFC; and Bjorn Q Aaserod, CEO of the American MPS. The agreement aims for supplying green hydrogen through water electrolysis units using renewable energy to replace natural gas partially in the production process.

MPS will leverage existing infrastructure and vacant space within the Abu Qir Fertilizers industrial area to execute the project. This initiative aims to significantly reduce natural gas consumption and carbon emissions, enabling Abu Qir Fertilizers to comply with EU emissions standards, including the CBAM.

The second agreement was signed with Ahmed El Sherbiny, Vice President of ABB Group for Power Industries, Automation and Digital Solutions, and the CEO of MPS.

Furthermore, the third agreement between AFC and ABB Group, signed by El Sherbiny and Ezz El Regal, for setting updated electronic control system at Ammonia plant for enhancing energy efficiency and reducing gas consumption by 2% – 4%, along with plans for system expansion.

MINING

EMRA Launches Bid Round for Kaolinitic Sand, Glass Sand Mining

The Egyptian Mineral Resources Authority (EMRA) invited national and international companies specialized in mining to participate in the General bid round No. (1) For the year 2024, to explore Kaolinitic Sand and Glass Sand ores and the associated minerals in Egypt.

The bidding, which included several blocks, starts on December 18th, 2024, and the closing date is February 13th, 2025 at 12:00 pm Cairo Local Time.

MoPMR, Barrick Gold Initiate Framework Agreement to Invest in Egypt

Minister of Petroleum and Mineral Resources Karim Badawi met with Barrick Gold officials in the presence of Moataz Atef, Undersecretary of the Ministry for the Minister's Office and Technical Office Affairs and the official spokesperson for the Ministry.

The meeting witnessed the signing of a framework agreement, which allows Barrick Gold to invest in Egypt by obtaining concession areas to exploit gold upon completing all necessary approvals and procedures under the provisions of the law.

The signing and meeting took place on the sidelines of Badawi's participation in the British Egyptian Business Association (BEBA Egypt) mission in London.

The meeting discussed cooperation efforts between the two sides, most notably the exploitation agreement model, which was recently agreed upon between the Ministry of Petroleum and Mineral Resources, the Ministry of Finance, and Barrick Gold. For their part, Barrick Gold officials praised the efforts of Minister Badawi in accelerating the procedures for finalizing the agreement.

MoPMR, AngloGold Ashanti Sign Draft Agreement for Gold Exploration

Egyptian Minister of Petroleum and Mineral Resources, Karim Badawi, oversaw the initial signing of a draft agreement with AngloGold Ashanti for gold exploration. The signing took place on the sidelines of the BEBA event.

The agreement, which will be finalized between the Egyptian Mineral Resources Authority (EMRA) and AngloGold Ashanti, is subject to the completion of all necessary approvals and legal procedures.

The meeting also discussed the status of searching and exploration operations at the concession areas that were acquired by the company after AngloGold recently acquired Centamin, the owner of the Sukari mine, which is one of the largest and most important gold mines in the world, as well as the ways to enhance cooperation between the two sides during the coming period.

MoPMR, Aton Resources Sign LoI to Increase Investments

The Ministry of Petroleum and Mineral Resources (MoPMR) and Aton Resources Incorporation signed a Letter of Intent (LoI) to study amending the concession agreement issued to the company to allow it to increase its investments within the concession areas, which maximizes the return to Egypt.

In this context, the MoPMR announced the successful completion of the newly amended Mineral Exploitation Agreement Model. This agreement reflects ongoing efforts to enhance the investment climate and establishes a robust framework for mutual benefit, aligning with Egypt's comprehensive strategy to modernize the mining sector.

DOWNSTREAM

MoPMR to Return Installment System for Natural Gas Deliveries to Households

The Ministry of Petroleum and Mineral Resources (MoPMR) decided to return the installments system for customers to pay for natural gas deliveries to their homes.

Installments will not involve any down payments or interest, and will be collected with the monthly consumption bill over seven years.

Accordingly, the contribution to the public and private sector delivery companies will be financed by the Egyptian Natural Gas Holding Company (EGAS).

The MoPMR would like to point out that any previous contracts concluded after the cancellation of the installment system last June will be included in the installment system again, and the companies implementing the contracts must follow the procedures regulating this.

EVENTS

Badawi Attends OAPEC Council of Ministers Meeting

Minister of Petroleum and Mineral Resources, Karim Badawi, led the Egyptian delegation at the Council of Ministers meeting of the Organization of Arab Petroleum Exporting Countries (OAPEC), held on December 15 in Kuwait.

The final statement issued by the meeting explained that the member states of the organization signed a decision to restructure it, redraft its establishment agreement, develop its work, and change its name to the Arab Energy Organization (AEO).

The proposed substantive amendments to the agreement will enter into force immediately upon completion of their adoption in accordance with the regulatory procedures of each member state.

OAPEC General Secretariat explained that the decision to restructure the organization, redraft its establishment agreement, develop its work, and change its name was made based on a proposal submitted by the Kingdom of Saudi Arabia.

Egypt Participates in 26th GECF Ministerial Meeting in Tehran

Moataz Atef, Undersecretary For Technical Office and Official Spokesperson – Ministry of Petroleum and Mineral Resources , participated in the 26th Ministerial Meeting of the Gas Exporting Countries Forum (GECF) in Tehran.

His participation was on behalf of Minister of Petroleum and Mineral Resources Karim Badawi.

In his speech, Atef addressed the most significant challenges facing the gas industry amid current economic and regional crises. He emphasized the importance of cooperation among the Forum's member countries to effectively tackle these challenges.

Atef also highlighted the ongoing global reliance on natural gas, particularly in light of the rising energy demand driven by artificial intelligence (AI). This underscores the critical role of gas even during the energy transition phase.

Additionally, Atef outlined the objectives of the Ministry of Petroleum and Mineral Resources at this stage.

Energy Transition and Sustainability: Petroleum Sector Takes the Lead at Al-Ahram Energy Conference

As part of Al-Ahram Energy Conference, the Minister of Petroleum and Mineral Resources Karim Badawi has opened a panel discussion under the title "The role of the petroleum sector in achieving the goals of energy transition and sustainable development."

The session was moderated by Ahmed Osama, Strategy and Technical Affairs Unit Head, Technical Office, Ministry of Petroleum and Mineral Resources (MoPMR), and included Business Development General Manager at Egyptian Petrochemicals Holding Company (ECHEM), Medhat Shaaban, EGPC 's CEO Assistant for Corporate Social Responsibility, and Yasmine Naguib and Fatma Ibrahim, Heads of Social Responsibility at MoPMR.

COMPANY OF The Month

IPR ENERGY GROUP

IPR Energy Group was founded in 1981. The company is actively involved in exploring and producing oil and gas in ten countries around the world and providing engineering and oilfield services worldwide.

IPR's Activities in Egypt

IPR has been actively involved in Egypt's petroleum sector since 1993, particularly in the Western Desert, Nile Delta, and the Gulf of Suez. The company's operations span both onshore and offshore assets, where they have a significant presence in exploration and production (E&P) activities.

In February 2024, IPR announced its willingness to invest $110 million in drilling new wells in the Alamein and Fayoum areas.

In June 2024, the company discovered hydrocarbons in Well AL-52Kh within the Alamein-Yidma Block, located in Egypt's Western Desert. The First discovery in the block was achieved by Phillips Petroleum in 1966 and began production in 1968. The block was later acquired by IPR in 1993.

The AL-52Kh well, drilled to 8,670 feet, was projected to produce 3,000 barrels per day (bbl/d) of oil, contributing to a total field production of 8,000 bbl/d. Meanwhile, the Ministry of Petroleum and Mineral Resources (MoPMR) approved a draft law authorizing a contract with Egyptian General Petroleum Corporation (EGPC) and IPR Transoil Corporation to amend the concession agreement issued to search for and exploit oil in the Adma/Alamein.

IPR succeeded in adding new production quantities, aiming to reach 15,000 (bbl/d) of oil by the end of 2024.

IPR'S MAIN ACQUIRED ASSETS IN EGYPT

Block	Area (sq km)	Location	IPR's Equity %
Alamein/Yidma	580	Western Desert	100
El Fayum	1820		55
North Beni Suef	5060		55
El Divur	54		12.5
NRQ	95		30
South Disouq	1275	Nile Delta	45
SW Gulf of El Zeit	9	Gulf of Suez	45
North July	15		50

Source: IPR Energy Group's Website

QatarEnergy Acquires Interest in Exploration Block Offshore Namibia

QatarEnergy has acquired a 27% working interest in the Petroleum Exploration License and Petroleum Agreement for Block 2813B (PEL0090), offshore Namibia.

Asa per the agreement, Harmattan Energy Limited (HEL), an indirect subsidiary of Chevron Corporation, will retain a 52.50% operating interest. The other partners on the block are Trago Energy Limited and the National Petroleum Corporation of Namibia (NAMCOR), each holding a 10% interest.

ADNOC Signs 15-Year Supply Deal with Germany EnBW for Ruwais LNG Project

ADNOC has signed a sales and purchase agreement to supply Germany's EnBW with 0.6 million tons per annum (mtpa) of liquefied natural gas over the period of 15 years which will be primarily sourced from the lower-carbon Ruwais LNG project, currently under development in Al Ruwais Industrial City in Abu Dhabi.

The LNG deliveries is expected to start in 2028 upon the project's commercial operations. To date, over 8 mtpa of the project's 9.6 mtpa production capacity has been committed to international customers through long-term agreements.

This agreement with EnBW converts the previous Heads of Agreement into a definitive one. It also marks ADNOC's second SPA with a German company for Ruwais LNG, following a 15-year, 1 mtpa agreement signed in November with SEFE Marketing and Trading Singapore Pte Ltd., a subsidiary of Germany's SEFE Securing Energy for Europe GmbH.

Upon completion, the project, comprising two 4.8 mtpa liquefaction trains with a combined capacity of 9.6 mtpa, will more than double ADNOC Gas' existing operated LNG production capacity to around 15 mtpa.

Eni Secures Four New Offshore Blocks in Côte d'Ivoire

Eni has signed contracts with the Ministry of Mines, Oil and Energy of Côte d'Ivoire in Abidjan to acquire four new exploration blocks in the country's offshore region.

The blocks, named CI-504, CI-526, CI-706, and CI-708, encompass a total area of approximately 5,720 square kilometers with water depths ranging between 1,000 and 3,500 meters.

Under the agreements, Eni will have the rights to explore these blocks for up to nine years.

Eni has been actively involved in Côte d'Ivoire since 2015 and currently maintains an equity production of around 22,000 barrels of oil equivalent per day (boe/d).

The company already operates six blocks in the Ivorian deepwater: CI-101, CI-205, CI-401, CI-501, CI-801, and CI-802, all in partnership with Petroci Holding.

Eni is preparing for the launch of Phase 2 of the Baleine in December 2024. This phase will boost total production from the Baleine field to 60,000 barrels per day (bbl/d) of oil and 70 million cubic feet (mcf) of associated gas (equivalent to 2 million cubic meters of associated gas).

Moreover, Phase 3, currently under study, aims to further increase production to 150,000 bbl/d of oil and 200 mcf of associated gas.

Shell Further Develops Bonga North Deep-Water Project Offshore Nigeria

Shell Nigeria Exploration and Production Company Limited (SNEPCo), has reached a final investment decision (FID) on the Bonga North deep-water project, located in OML 118 offshore Nigeria.

The project, which will help maintain oil and gas production at Bonga facility, will be tied back to Shell's Floating Production Storage and Offloading (FPSO) facility, where Shell holds a 55% stake.

The Bonga North project involves drilling, completing, and starting up 16 wells (8 production and 8 water injection wells), modifications to the existing Bonga Main FPSO and the installation of new subsea hardware tied back to the FPSO.

Bonga North currently has an estimated recoverable resource volume of more than 300 million barrels of oil equivalent (boe) and will reach a peak production of 110,000 barrels of oil a day, with first oil anticipated by the end of the decade.

CNOOC Starts Production at Huizhou 26-6 Oilfield Development Project

CNOOC has commenced production at Huizhou 26-6 Oilfield Development Project in the Peral River Mouth Basin.

A total of 19 development wells are planned to be commissioned, including two oil production wells and 17 gas production wells.

The project, with an average water depth of about 110 meters, is expected to achieve a peak production of about 20,600 barrels of oil equivalent per day (boe/d) in 2027. The main products include light crude and natural gas.

Huizhou 26-6 Oilfield Development Project is CNOOC's first deep buried hill reservoir development project in the South China Sea.

The project's main production facilities include a new intelligent drilling production platform, as well as the adaptively modified "NAN HAI FEN JIN" FPSO.

The company aims through this project to contribute to the economic and social development of the Guangdong–Hong Kong–Macao Greater Bay Area.

Petrobras Begins Operation of SNOX Unit at Brazil's RNEST Refinery

Petrobras has commenced the operation of the SNOX unit at the Abreu e Lima refinery (RNEST) in Ipojuca, Brazil, marking the first emissions reduction unit of its kind in both Brazil and the Americas.

The SNOX unit is designed to transform sulfur oxide (SOx) and nitrogen oxide (NOx) emissions into sulfuric acid. This acid is used for various applications, including the treatment and generation of drinking water.

The implementation of the SNOX unit enables RNEST to increase its processing capacity by 27,000 barrels per day (bbl/d), raising the total from 88,000 bbl/d to 115,000 bbl/d, all while adhering to local environmental regulations.

Additionally, the unit produces steam, which will be utilized within the refinery, reducing the consumption of gas for energy production and enhancing overall energy efficiency.

Pharos Energy to Extend Operations at Two Vietnam Oil, Gas Fields to 2031/32

UK-based oil and gas explorer, Pharos Energy has received approval from the government to extend the license of TGT and CNV fields by five years in Vietnam, allowing operations to continue into the early 2030s.

The Te Giac Trang (TGT) field, operated by the Hoang Long Joint Operating Company, has received an extension until December 7, 2031. The TGT field is located in Block 16-1 of the Cuu Long Basin offshore Vietnam, and its original license was set to expire in December 2026.

Similarly, the Ca Ngu Vang (CNV) field, located in Block 9-2 and operated by Hoan Vu Joint Operating Company, has received an extension until December 15, 2032, from its previous expiration date in December 2027.

As a result of these extensions, the TGT field is set to begin drilling an appraisal well in the fourth quarter of 2025, and both fields may drill additional infill wells.

The extensions will increase proven and probable reserves at both fields by about 10% by the end of this year.

Saipem Secures Major Offshore Services Contract in Indonesia

Tangguh UCC Project located in Papua Barat Province, Indonesia.

The project comprises Ubadari field development, enhanced gas recovery through carbon capture, utilization and storage (EGR/CCUS) and onshore compression, operated by BP Berau Ltd.

The Tangguh UCC project encompasses the production of natural gas resources from the Ubadari offshore field and its transportation to the onshore LNG plant where it will undergo a CO_2 separation process. The captured CO_2 will then be sent into an offshore platform for re-injection into the reservoir, helping to extract additional natural gas resources.

As per the contract, valued at about $1.2 billion, Saipem will do the engineering, procurement, construction and installation of two wellhead production platforms, a wellhead platform for the re-injection of CO_2 and approximately 90 km of associated pipelines.

The platforms will be fabricated locally in Karimun, Saipem's largest yard worldwide and one of the largest in the Southeast Asian region, with over 5,000 employees and approximately 1.4 million square meters area including the marine base and docks.

Woodside Signs Deal with Bechtel to Develop Louisiana LNG Project

Australia's Woodside Energy Group has signed a contract with US Bechtel for engineering, procurement and construction (EPC) of the Louisiana liquefied natural gas (LNG) project, with final investment decision (FID) expected by the first quarter of 2025.

The EPC contract will cover the foundation development for the project's three production trains, with a capacity of 16.5 million tons per annum (mtpa). Notably, the project has a total permitted capacity of 27.6 mtpa.

As the owner of Louisiana LNG project, Woodside forecasted that total expenditure on the project from December to the end of the first quarter of 2025 to reach up to $1.3 billion.

The estimated cost for the project's foundation development remains within the range of $900-$960 per ton of LNG, consistent with the figures at the time of its acquisition.

Woodside has fully acquired the Louisiana LNG project in a $1.2 billion deal from developer Tellurian Inc in October and is currently seeking to sell a 50% stake in the project.

Equinor Completes Asset Sales in Nigeria, Azerbaijan for $2B

Equinor has completed the sale of its assets in Nigeria and Azerbaijan, realizing a total consideration of up to $2 billion. This marks the end of the Norwegian oil and gas company's operations in these two countries after nearly 30 years.

The divestments, announced in 2023 and finalized in recent weeks, are expected to enhance cash flow in the fourth quarter and align with Equinor's strategy to optimize its international portfolio

In Nigeria, Equinor sold its assets, including a 20.21% stake in the Agbami oil field operated by Chevron, to Chappal Energies for up to $1.2 billion. The deal includes $710 million in cash and the remainder in contingent payments.

TotalEnergies Completes Acquisition of 50% Stakes in SapuraOMV

TotalEnergies has completed its acquisition of the stakes held by OMV and Sapura Upstream Assets in SapuraOMV Upstream, resulting in TotalEnergies now holding 50% of SapuraOMV, an independent gas producer based in Malaysia.

SapuraOMV's primary assets include a 40% operating interest in block SK408 and a 30% operating interest in block SK310, both located offshore Sarawak in Malaysia.

In 2024, SapuraOMV's operated production is expected to reach approximately 590 million cubic feet per day (mcf/d) of natural gas, supported by the start-up of the Jerun gas field in July. This production will supply the Bintulu LNG plant operated by Petronas, along with 10,000 barrels per day (kb/d) of condensates.

The assets have production costs (ASC932) below 5 $/boe and an overall emission intensity below 10 kg CO_2e/boe.

SLB Boosts Drilling Efficiency with AI-Driven Geosteering Solution

SLB has launched Neuro™ autonomous geosteering, an AI-driven solution designed to improve the efficiency and productivity of drilling operations while reducing their carbon footprint.

This technology uses artificial intelligence to interpret real-time subsurface data and autonomously guide the drill bit through the most productive layer of the reservoir which eliminates the need for manual data interpretation and communication, streamlining the drilling process.

The new technology builds on the company's existing Neuro autonomous directional drilling technology. It incorporates high-fidelity downhole measurements to ensure certainty of well placement in the best part of the reservoir.

Chevron Australia to Supply Gas to Alcoa for 10 Years

Chevron Australia has signed a long-term gas supply agreement with aluminum producer Alcoa. Under the terms of the deal, Chevron's Australian unit will deliver a total of 130 petajoules of gas to Alcoa over a 10-year period, commencing in 2028.

The gas will be supplied form Chevron's 530 terajoules-a-day Gorgon and Wheatstone facilities, and Northwest Shelf Venture in Western Australia, Chevron Australia said on Tuesday.

Alcoa plans to utilize the gas to power its alumina refineries in Western Australia.

Venture Global Produces First LNG from US Plaquemines Plant

Venture Global LNG has produced its first liquefied natural gas (LNG) from its second facility at Plaquemines plant in Louisiana, marking the first new US LNG plant in two years.

Aimed to produce 20 million tons per year of LNG, the project moved into production 30 months after receiving the Final Investment Decision (FID), making it one of the two fastest greenfield projects to reach first production, along with the company's first facility Calcasieu Pass.

The company plans to invest $50 billion in energy projects in the US and keep revenue from initial shipments.

Plaquemines will produce and export LNG while construction and commissioning continues for the remainder of the project's 36 trains and associated facilities, unlocking significant additional US LNG supply years faster than any other new suppliers of LNG to the rapidly growing global market,

BADAWI'S BLUEPRINT

A NEW ERA FOR EGYPT'S ENERGY SECTOR

In Egypt Oil & Gas Newspaper's first-ever exclusive interview with Minister of Petroleum and Mineral Resources Karim Badawi, the minister shares his transformative vision for Egypt's energy sector. With decades of experience in the private sector, Minister Badawi brings a fresh perspective to a pivotal role, emphasizing collaboration, innovation, and investment as the cornerstones of sustainable growth. From unlocking the nation's untapped resources to harnessing the power of digitalization and regional partnerships, this candid conversation delves into the strategies shaping Egypt's ascent as a global energy powerhouse.

Your Excellency, you have been through lots of different stages in your journey in the private sector. How does that journey impact your new role today as a Minister?

I feel very fortunate to have actually spent most of my professional career in a multinational company. The values around people and the values around technology have always been ingrained right in me when working in SLB.

I have been fortunate to have a diverse career, which I believe is incredibly valuable. This experience has allowed me to emphasize to members of our team that gaining exposure to different areas within an organization significantly enhances the value they bring.

Everybody in an organization plays a critical role in its success. This is why I firmly believe that everyone in the field and organization is important

> **In** every organization, anybody's success actually can only stem from the success of their teams.

Everybody in an organization plays a critical role in its success. This is why I firmly believe that everyone in the field and organization is important, which helped me realize that your success is our success.

In every organization, anybody's success actually can only stem from the success of their teams. Ensure that you foster an environment where everybody can give their full potential to unlock the value that they have, and a lot of value for the shareholders.

I am really grateful for the exposure that I have had, working with amazing people and amazing mentors, both within the company and the sector. Working in our sector is really also very unique, right? It is a sector which really promotes the spirit of collaboration and partnership, ability to learn, ability to contribute. And it is up to all of us to enable that to happen everywhere in the organization.

> **My** short-term targets are very easy. I want to make sure all our partners are paid their dues. I want to make sure that we are taking collaborative and active steps to increase production, and that we are working together to unlock what would be the next potential for production and exploration.

Your Excellency, during your opening speech at EOGC 24, you highlighted various elements that contribute to building a more sustainable future—not only for the sector but also for the stakeholders involved. Could you share your main short-term targets that you aim to achieve based on these identified needs?

My short-term targets are very easy. I want to make sure all our partners are paid their monthly dues. I want to make sure that we are taking collaborative, active steps to increase production, and that we are working together to unlock what would be the next potential for production and hence exploration.

For me, if we focus on these three key areas, everything else will naturally follow. They form the foundation for creating a sustainable ecosystem that drives increased production, benefits all stakeholders through improved mechanisms, reduces actual costs for our partners, and fosters more constructive dialogues. This approach will alleviate much of the pressure currently felt across the sector, paving the way for new types of conversations—within companies and beyond—centered on operations, growth, and investments.

Success breeds success. As activity within the sector grows, it provides greater reassurance to those involved about its future potential. In summary, our focus is on supporting this growth by ensuring access to necessary materials, collaborating closely with our partners to boost production, accelerating exploration efforts, and fostering a spirit of collaboration across all stakeholders.

Could you elaborate on how we can attract further investments, not only from existing stakeholders but also from new ones? Specifically, how do you envision leveraging regional cooperation, existing partnerships, and current stakeholders to bring more investment into Egypt's oil and gas industry?

Attracting investment to Egypt benefits everyone. It reduces operational costs and creates opportunities for existing partners to expand their investments. By streamlining processes and collaborating with regional partners, we can help our partners lower their future costs per barrel, unlocking their full potential in the region.

The other aspect is how we attract new investors to the sector. In this regard, we are addressing two key areas. One involves attracting further investment from Egyptian investors who possess the funds, expertise, and a proven track record of success in various sectors—both within Egypt and internationally—but may not yet be engaged in the oil and gas industry. The question is how we can open this new chapter for them, demystify the process of investing in oil and gas, and unlock their potential to contribute to the sector's growth.

For us, this achieves two key objectives: attracting further investment and increasing production. This is why the session we held on September 30th with existing Egyptian investors, alongside prominent business leaders and Egyptians with significant assets in other industries, was so important.

This is why collaboration is important. Take the Egypt Upstream Gateway (EUG) team, for example, showcasing the available investment opportunities. Additionally, the collaboration between service companies and others helps facilitate the process. By working together, they can provide the necessary support to unlock those investments, making it easier for all parties involved.

> **Success** breeds success. As activity within the sector grows, it provides greater reassurance to those involved about its future potential.

The Parliament is also very important for us should we require regulatory framework changes, and so forth, beyond what we already did, which does not require regulatory requirements and changes, then we can leverage their support to be able to make investment attraction in the sector easier, not only for Egyptian investors but for everyone.

Initially, I expected there would be only one or two interested parties, but to our pleasant surprise, we had several parties expressing strong interest. We've already taken steps forward, as you've seen with the public announcements of Memoranda of understanding (MoUs) signed a few weeks ago. Ongoing discussions and engagements are in progress to move to the next step. Additionally, we have other highly interested investors who are actively working on this as well.

Last but not least, we need to explore how we can attract investors from outside Egypt into the sector. This is where support from our existing partners becomes crucial, as they bring diverse perspectives. Some partners want to operate, while others are interested in partnering on assets. The same applies to external investors who are not yet in Egypt but are interested in entering the market. These investors may not want to operate directly but are keen to partner with our existing stakeholders on current or future blocks, allowing them to gain valuable experience in the sector.

> **Attracting** investment to Egypt benefits everyone. It reduces operational costs and creates opportunities for existing partners to expand their investments.

How is the gas supply situation progressing? Are we in a good position right now? With the strategy we're currently working on, do you believe we will avoid another electricity shortage or cutoff?

This was part of how we are working in a very collaborative way with the Ministry of Electricity and Renewable Energy. I will say that the Minister of Electricity and Renewable Energy has taken significant steps, evolving from signing MoUs to actually signing contracts for renewable energy projects. Every contract signed in renewable energy is a very positive sign.

Those contracts focus more on operational execution aspects that will be required in different stages throughout the years. Between now and 2030, the plan is there, the contracts are there, and it's more about execution in parts. All of that becomes very positive because it helps unlock the gas that moves into powering the electricity sector, and hence that frees up more gas to be used for exports and so forth.

I want to express my sincere appreciation and gratitude to our partners. The ongoing exploration activities in the Mediterranean and onshore for gas are highly promising and deserve recognition.

Hence, for me, the acceleration of actual exploration is very important, and it's also a very positive sign because any exploration activity adds data for all the different models for the region to be able to accelerate further investment decisions, and reduce risks in further exploration.

They also open up the opportunities of unlocking what could be the next Zohr or what could be the next major fields and so forth. You cannot do that unless you physically explore and physically drill wells. We also understand that the outcomes are not immediate. The process from making a discovery to delivering gas into the network takes time and doesn't happen overnight.

What we also know in Egypt, in collaboration with our partners, is that we all have the capability to do that in record time if we all work together. We did that before in Zohr and we can do that, again tomorrow with any major or small business.

I want to emphasize the critical role of technology in exploration. Exploration isn't limited to frontier fields or unexplored parts of the Mediterranean; it also extends to ongoing activities in regions like the Gulf of Suez. Advances in technology, such as seismic imaging and new seismic data, have the potential to completely transform our understanding of the Gulf's potential.

At its peak, the Gulf of Suez produced around 600,000 barrels per day, but current production is significantly lower. The region's subsurface structures are highly complex, which has historically posed challenges. However, leveraging advanced technology to unravel and better understand these complexities can provide companies operating in the Gulf with improved visibility, lower risks, and higher success rates in drilling operations. This could mark a turning point for the region's potential.

In addition to the vital role of technology, I want to stress the importance of onshore exploration alongside offshore activities in the Mediterranean and Red Sea. It's a priority for me to ensure that we unlock the full potential of these regions in collaboration with our partners.

From a capital allocation standpoint, I understand that shareholders today prioritize investments in areas with lower risk, higher returns, and a sustainable framework to address their receivables effectively.

What is the importance of digitalization and artificial intelligence in boosting production, exploring untapped opportunities, and attracting investments in the industry?

Digitalization is very important and it has several elements. It fundamentally depends on data, but it also depends on understanding the processes you are trying to enable. It is important in terms of ensuring that your digital investment covers the value chain to unlock its value. For instance, when I look at our sector, the EUG serves as a prime example of digital integration.

EUG creates significant value for the country by attracting investments. It plays a key role in the broader workflow, including data collection and enhancement through advanced processing. Additionally, it contributes substantially to the government's ability to launch bid rounds and present investment opportunities to the global market.

> **I** want to express my sincere appreciation and gratitude to our partners. The ongoing exploration activities in the Mediterranean and onshore for gas are highly promising and deserve recognition.

You have all the different elements. You have the data, you have the process of where it is in, and you have the business driver behind it, and they are integrated. So, when I talked about the example of attracting Egyptian investors who are not in the oil and gas field, I can tell you that this would not have been possible unless we had that digital enablement present.

> **I** am genuinely very optimistic for several tangible reasons. Do we have subsurface potential? We have it.

Additionally, partnerships are essential for making "digitalization" happen. I firmly believe that digitalization can increase production. Many of our partners are doing a lot of digital initiatives. Digitalization brings together data, optimized processes, and targeted use cases to unlock new possibilities. Then the sky is the limit!

This is why when I look at our first priority to increase production, digitalization can help us maximize production from existing fields. Additionally, AI helps us de-risk investments in exploration activities.

I encourage everyone participating in the current workshops and future engagements to challenge us—the Ministry, EGPC, and other relevant entities—to identify where digitalization has already unlocked value, where it can create further opportunities, and what steps we need to take to scale and industrialize it to maximize value across the entire value chain.

Digitalization is also not free. It comes at a cost, and it is okay to invest in cost. Therefore, I want to emphasize that when we develop our yearly plans, I firmly believe that it is important to invest in digitalization not as a discrete project but actually to invest in terms of how you get digital as part of the workflow within a company or across a group of companies or across the sector in a coordinated manner that will unlock further value.

> **We** are not starting from scratch in this sector. There is a lot of ongoing work that will lead us to a sustainable and promising future.

After almost five months in the office, how do you feel? Are you excited, optimistic, or confident?

I am genuinely very optimistic for several tangible reasons. Do we have subsurface potential? We have it. Everyone in the sector knows it, and that's a significant advantage for us.

Do we have collaboration, in terms of having the right companies, the right people, and the right talent pool? We have it. I have no doubt and every day as I meet new people, my optimism grows even stronger.

Then, when we look in terms of political will, is it present? Is there coordination among the different members? Because you need collaboration, and I emphasize this repeatedly. I can guarantee to you that political will and collaboration among cabinet members for the sector's success are indeed there.

If you also look at regional collaboration to unlock this potential, do I see it, do I feel it? I feel it and it's there. I know we're in a challenging time. Do I see the light at the end of the tunnel? I can see it. Do I feel really getting there? We can see it. I genuinely feel it.

What drives me, even when sleep is scarce, is this vision of what we can achieve together. I encourage all of us to support one another as we navigate this journey of unlocking our potential.

It's like planting a tree and there is a seed. We are not starting from scratch in this sector. There is a lot of ongoing work that will lead us to a sustainable and promising future.

I am unquestionably very optimistic and very thankful to everyone in this room and all our partners for sticking together to make that a reality.

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Investments Driving Competitiveness

Egypt's Evolving Energy Landscape

By Jolly Monsef and Nermeen Kamal

Egypt is a highly attractive destination for investment, particularly in its oil and gas sector. The country has taken several significant steps to attract investment, including offering investment incentives, tax facilities, and implementing business-friendly regulations.

The Egyptian oil and gas sector recognizes that attracting and securing investments are crucial for its long-term success. To this end, the sector prioritizes enhancing the investment environment to encourage significant partner participation, thereby stimulating increased production of natural gas and crude oil.

Investments are considered the cornerstone of supporting and boosting petroleum production rates, as stated by Karim Badawi, the Minister of Petroleum and Mineral Resources.

The Ministry of Petroleum and Mineral Resources (MoPMR) has presented 61 attractive investment opportunities for crude oil and natural gas exploitation and development. The MoPMR also seeks to foster regional cooperation with other countries and international oil companies (IOCs), while simultaneously empowering the Egyptian private companies and National oil companies (NOCs).

This report covers Egypt's performance among international indices, a key indicator of its investment climate. It then examines Egypt's specific efforts to enhance that climate within the oil and gas sector, including laws, regulations, and incentives. The report further highlights the sector's contribution to Egypt's investments and explores future plans of the partners to achieve success.

Investment Environment Overview

Egypt's Presence in International Indices

Egypt's standing improved in 2023 across key international indices, including the Corruption Perceptions Index (CPI), Government AI Readiness Index, and Legatum Prosperity Index, compared to its 2022 performance.

Egypt ranked 62nd out of 193 countries in the Government AI Readiness Index, with an improved score of 52.69 compared to 49.42 in 2022. Egypt has made notable advancements in this domain by introducing the Egyptian Charter for Responsible AI.

Egypt also recorded a significant improvement in CPI with 108th rank after ranking 130th in 2022. In the Legatum Performance Index, Egypt ranked 121st out of 167 countries and 14th among the Middle East and North Africa (MENA) region.

Egypt's Rank & Score in Global Indices in 2023

Index	Score	Rank	Number of Change Spots (YoY)
Corruption Perceptions Index (CPI)	35	108	↑ 22
Government AI Readiness Index	52.69	62	↑ 3
Legatum Prosperity Index	48.57	121	↓ 3
Logistics Performance Index	3.1	-	-

Egypt's Law, Policies, and Incentives for the Oil and Gas Sector

Latest Approved Laws and Agreements

The Egyptian cabinet is currently approving several agreements for the Egyptian Petroleum Corporation (EGPC), and the Egyptian Gas Holding Company (EGAS), with several IOCs to explore, develop, and exploit resources in different promising areas.

Key Oil & Gas Agreements Approved in 2024

Drilled Wells | Investments ($ million) | Companies | Aim

February 8, 2024 — 2

8

232

EGPC & IOCs

To search for and exploit oil, in the deep offshore areas of the Western Delta in the Mediterranean Sea, and northwest of October in the Gulf of Suez

December 11, 2024 — 2

4

133.8

EGPC, EGAS & IOCs

To search for and exploit natural gas and crude oil in the East Port Said marine area in the Mediterranean Sea and the East of El Obeid area in the Western Desert

March 7, 2024 — 5

EGPC, Apache Khalda Corporation LDC and Tharwa Petroleum Co.

To amend the commitment agreement issued by Law No. 148 of 2004 amended by Law No. 144 of 2009 and Law No. 122 of 2014 for the exploration and exploitation of oil in the Siwa region of the Western Desert

EGPC and IPR TransOil Corporation

To amend the concession agreement issued by Law No. 155 of 1963 amended by Law No. 172 of 2005 to explore and exploit oil in the Yidma/Alamein Concession, in the Western Desert

EGAS and Dana Gas Egypt Limited

To search for and exploit gas and oil in the New Manzala area in the Nile Delta

EGPC and HPS International Egypt Limited

To amend the commitment agreement issued by Law No. 213 of 2014 to search for and exploit oil in the southwestern El Alamein region in the Western Desert

EGPC and North Petroleum International Company (NPIC)

To amend the commitment agreement issued by Law No. 9 of 2007 to search for and exploit oil in the East Ghazalat region in the Western Desert

July 9, 2024 — 5

200

EGAS, & IEOC Production B.V.

To search for and exploit gas and crude oil in the North Port Fouad offshore area and South Nour offshore in the Mediterranean Sea

EGAS, & "ZN BV" LTD

To explore and exploit natural gas and crude oil in the North Al Khatatbah onshore area in the Nile Delta

EGPC, & HPS International Egypt Limited

To search for, develop, and exploit oil in the South Dabaa Development Zone (SD-3) in the Western Desert

EGPC, Tharwa Petroleum CO. & GPC

To search for, develop, and exploit oil in the Horus Development Area in the Western Desert issued by Law No. 105 of 2014

Oil & Gas Signed Agreements

The MoPMR, committed to attracting investment, has identified numerous opportunities to boost production. To incentivize both local and international investors, the Ministry has crafted compelling marketing plans, highlighting attractive investment opportunities and a supportive legislative framework.

In 2024, seven investment agreements were signed and plans are underway to secure an additional 15 agreements by the end of 2025 carrying a signature bonus of up to $20 million, with a minimum investment of $748.5 million, and a drilling commitment of at least 46 wells.

In August 2024, a total of 61 investment opportunities were announced by EGPC and EGAS. EGPC presented 34 exploration areas and 15 mature field areas, while EGAS highlighted 12 exploration areas in the Mediterranean and North Delta regions.

Signed Agreements in 2024*

Number	Signature Grant	Minimum Investments	Commitments to Drill
7	$13.5 million	$367.5 million	min of 32 wells

*Announced in October 2024

Recent Sector's Investment Incentives

The Egyptian oil and gas sector is keen on providing several investment incentive packages aimed at increasing the production of crude oil and natural gas. In August 2024, the MoPMR announced new incentives; including new mechanisms associated with achieving an increase in production beyond the current rates, as well as an increase in exploratory, developmental drilling activities and production operations.

To facilitate the exploration and exploitation of natural gas and crude oil in different blocks across Egypt, the sector has leveraged the Egypt Upstream Gateway (EUG) platform. Since its establishment, about 10 digital bid rounds have been launched. The EUG provides access to the essential and all updated technical data, significantly speeding up the evaluation of investment opportunities, and simplifying bid submissions.

In late 2023, the Egyptian Natural Gas Company (GASCO) received a golden license from the Egyptian Cabinet to add a fourth production line to the Western Desert Gas Complex project, with a design capacity of 600 million cubic feet per day (mcf/d). This will be located on approximately 33 acres in the Industrial Nahda Zone, in Amreya, Alexandria Governorate.

Bid Rounds

Announced Date	Blocks	Location	Close Date
August 27, 2024	12	Mediterranean Sea Nile Delta	February 25, 2025
November 21, 2024	West Gharib-HNW	Gulf of Suez	December 12, 2024
December 11, 2024	West Gharib-G	Gulf of Suez	January 9, 2025

Golden License to Boost Production

Approved Date	September 20, 2023
Company	GASCO
Investment	$380 million

Oil & Gas Sector Economic Contribution

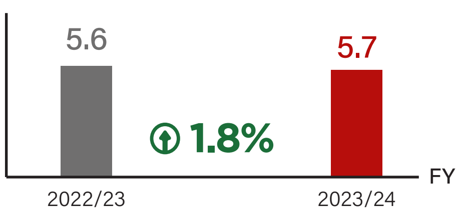
Foreign Direct Investment (FDI)

FDI inflows in the sector increased by 1.8% in the fiscal year (FY) 2023/24, reaching $5.7 billion, according to the Central Bank of Egypt (CBE). These inflows primarily consist of green investments made by foreign oil companies, driven by the significant incentives provided by the government.

Meanwhile, transfers abroad related to cost recovery for exploration, development, and operations previously incurred by foreign partners declined by 9.1% to $6 billion in FY 2023/24, compared to $6.6 billion in FY 2022/23.

Consequently, net outflows decreased to $351.6 million in FY 2023/24, compared to $982.5 million in the previous FY.

Sector's FDI Inflow Development ($ billion)



Driving Investments in the Oil & Gas Sector

NOCs & JV Investment Plans

NOCs in Egypt play an important role in the energy sector, particularly in driving exploration and production (E&P) activities. Their contributions are especially significant through collaborative joint ventures with IOCs, which facilitate the development of new fields and the optimization of existing reserves. These partnerships effectively merge local expertise with international knowledge, ensuring consistent progress in exploration.

Company	Investments ($ billion)	Duration	Company	Investments ($ billion)	Duration
Enppi	5	2024-2028		0.535	2024/25
AGIBA	0.5	2024/25	Khalda	1.2	2024/25
	0.614	2024/25		0.586	2024/25

Major IOCs Investment Plans

IOCs have been significantly investing in Egypt's oil and gas sector, driven by the country's rich energy resources and its strategic importance in the region. In recent years, many IOCs have expanded their operations through joint ventures, new exploration blocks, and partnerships with the Egyptian government. These collaborations not only boost Egypt's energy security, but also support the country's goals for economic development, energy diversification, and boosts its position as a regional energy hub.

In September 2024, Eni and its partners intended to pump new investments into Egypt, over the next four years, worth $7.7 billion, as part of the company's keenness to enhance its successful projects in Egypt.

In January 2024, Enap intended to pump investments estimated at about $70 million in 2024 in the East Ras Qattara area to drill 4 development wells and 3 exploratory wells in the Shahd, North East Shahd, and Zahraa areas.

Total Investments
581 million

Announced its commitment to investments worth $1.4 billion in 2024 for research, exploration, and production in its operating areas in Egypt in the Western Desert.

Total Investments
3.5 billion

Year
2021-2025

The company plans to invest $43 million in preparation for an intensive drilling program in its concession areas in 2024, indicating the company's commitment to operating and expanding in Egypt.

In June 2024, the Egyptian Cabinet approved Dana Gas' new concession agreement, under which Dana Gas committed to a major development and exploration program with planned investments of $100 million, to increase production and add gas reserves.

The company plans to invest $200 million in FY 2024/25 to drill two wells in Raven field and also plans to invest $120 million to drill two wells in the Giza and Fayoum areas in the Mediterranean Sea.

Duration
2024, 2025, 2026 and 2027

Investments
$1.5 billion

Aim
Exploration and development of natural gas resources

The fully-owned exploration, development, and production company by the National Petroleum Company (ENOC), planned to invest $500 million in Egypt in 2024 to drill new wells and maintain production at 61,000 barrels of oil per day (bbl/d).

American energy group "IPR" planned to inject investments worth $250 million in Egypt during 2024, and 2025.

IOCs Arrears Updates

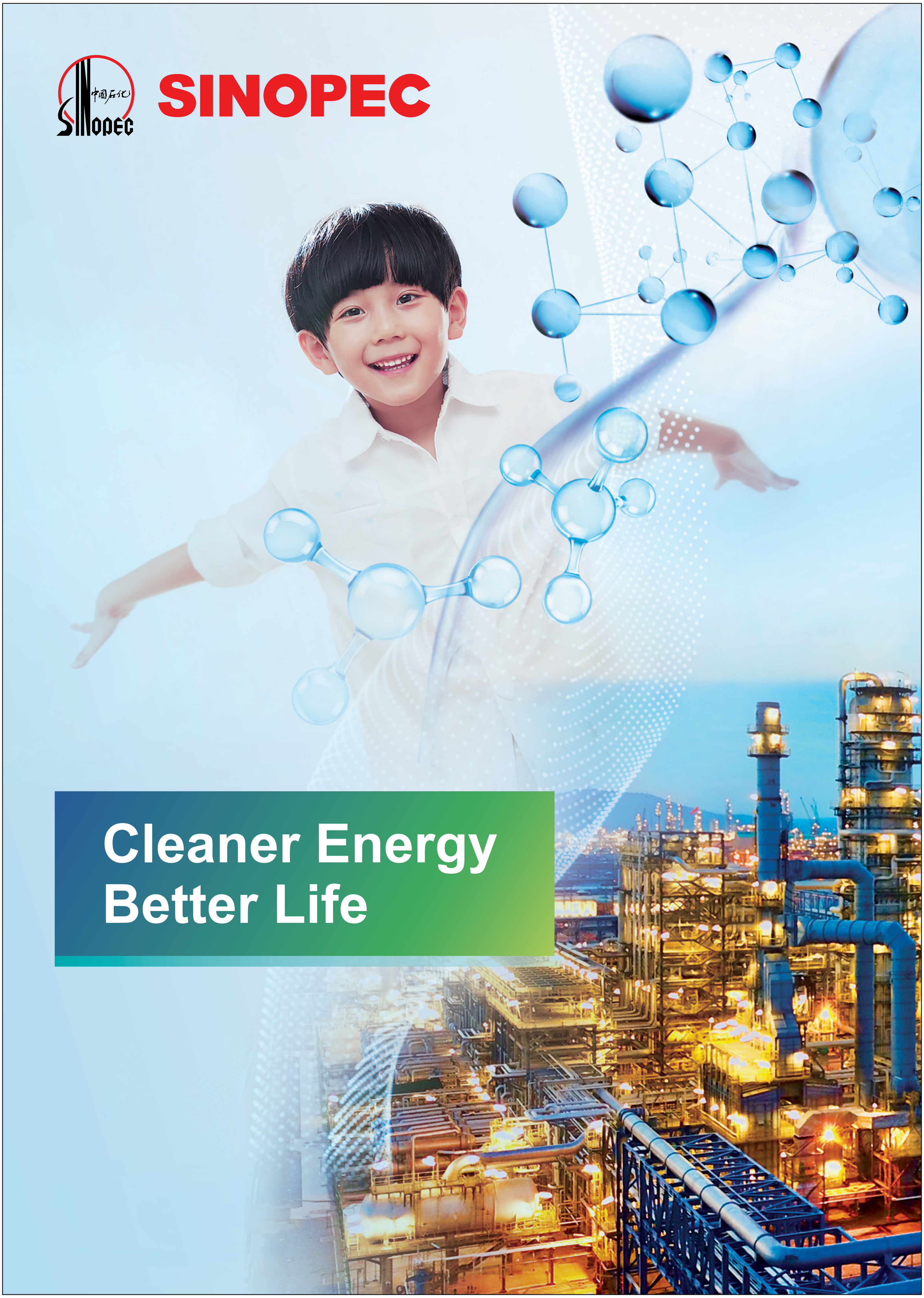
Egypt's commitment to a stable investment climate is evident in its efforts to address outstanding financial obligations. The MoPMR has made significant strides in fulfilling its commitment to paying off arrears. The payment program is being implemented on schedule, with monthly bills paid regularly. This proactive approach has been well-received by both domestic and international partners.

To date, between 20% and 25% of the arrears owed to foreign companies have been settled, depending on the individual company's outstanding balance, according to MoPMR press release.

For instance, in December 2024, Dana Gas received a $20 million cash payment from its Egyptian operations, bringing the total fourth-quarter (Q4) receipts to $24.5 million from the outstanding $59 million receivables balance. The company plans to reinvest these funds into its Egyptian operations, particularly to initiate its investment program as outlined in the concession area merger agreement with the Egyptian government.

Egypt's investment landscape, particularly in the oil and gas sector, continues to demonstrate resilience and strategic focus despite facing global and domestic challenges. Through comprehensive reforms, including the enactment of significant investment laws and the issuance of golden licenses, MoPMR has created an attractive environment for both local and international investors. The ministry's efforts, complemented by partnerships with IOCs and the strategic use of platforms like EUG, have been instrumental in identifying and promoting lucrative exploration and production opportunities.

Increased FDI and proactive agreements signal robust confidence in Egypt's potential as a regional energy hub. With a blend of enhanced investment incentives, regional collaboration, and ongoing initiatives to address financial obligations, Egypt is fostering a supportive climate for sustainable growth in its energy sector. These developments align with the broader national objectives of economic diversification and energy security, underscoring Egypt's pivotal role in the global oil and gas market.


SINOPEC
中國石化
SINOPEC
Cleaner Energy
Better Life

A YEAR IN THE WORLD OF ENERGY

BY RANA AL KADY

To begin with, considering the goal of being a leader in the MENA region's shift to cleaner energy sources, Egypt is making notable progress in the field of renewable energy. Egypt is setting the stage for a more sustainable future by using wind, solar, and hydropower.

Since 2017, the nation's greenhouse gas (GHG) emissions have been gradually declining. Due in large part to improvements in energy industry efficiency and support for renewable energy projects, it was able to partially minimize GHG emissions from population and economic development. Egypt is still one of Africa's top producers of oil and gas, nevertheless. Given the vast potential of the nation, increasing the usage of renewable energy might further result in a simpler implementation and usage of transitional fuels moving forward.

General Overview

Firstly, under newly implemented regulations, the Egyptian government has implemented a number of incentives to promote investment in the field of renewable energy. These consist of tax exemptions, customs duty exemptions, and other financial incentives intended to increase the viability and appeal of renewable energy projects to investors. To support its renewable energy sector, Egypt has participated in global partnerships and cooperation in addition to its local initiatives. These collaborations provide Egypt's renewable energy projects access to technical know-how, financial opportunities, and a global viewpoint.

A number of factors, including trade deals, grants, funding and cost incursion, advancement of technology, infrastructure potential, human resources and capacity building, access to and/or limited availability of resources from nature, and, of course, stakeholder engagement, are associated with energy transitions in numerous nations.

Over the past year, Egypt's national and international climate responsibilities have grown significantly. Egypt's overall Sustainable Development Strategy, which includes climate targets, is outlined in Vision 2030. In order to further integrate climate issues into all policy domains, a 2023 update advocates a detailed strategy. The execution of the revised Vision is supported by a number of sectoral plans in several policy sectors (e.g. National Strategy for Green Hydrogen, Water Resources Development and Management Strategy 2050, Integrated Sustainable Energy Strategy 2035 etc.)

Natural Gas Transition: The Talk of the Town

Natural gas is widely known for its usage in homes for heating and cooking, but it is also a crucial fuel for power generation and is used in the production of chemicals and plastics.

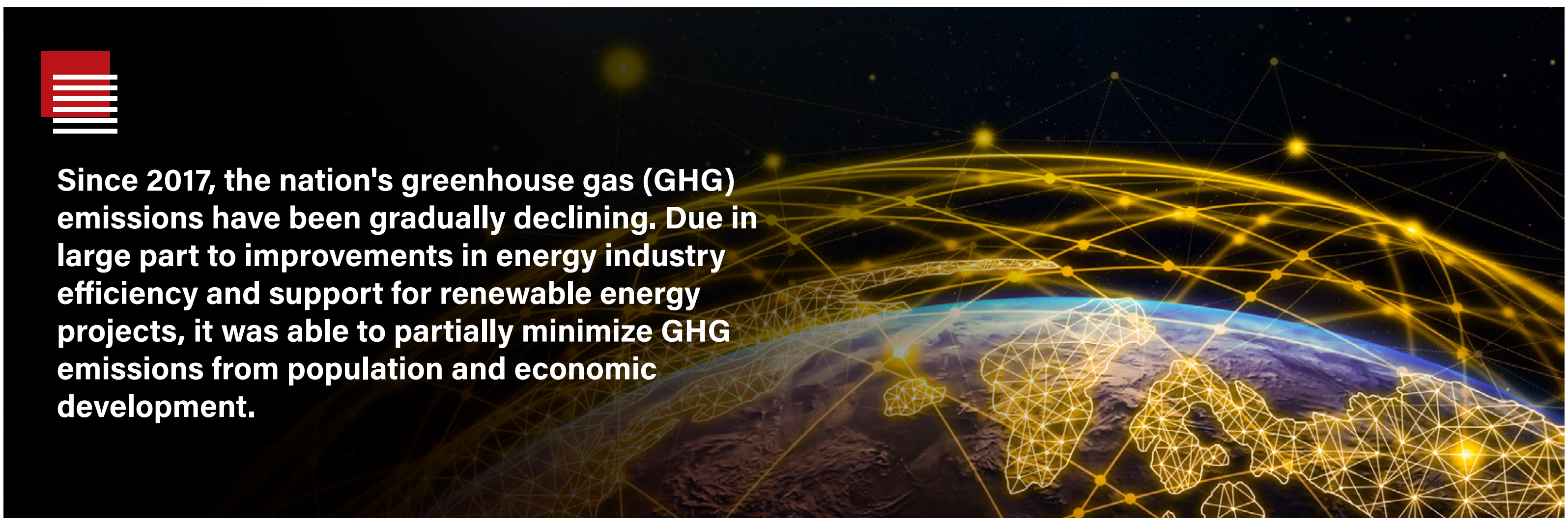
Due to its greater availability, flexibility, and lower CO2 emissions than coal and oil, natural gas has been more and more popular in power production in recent decades. However, in order to fulfil global climate objectives, natural gas emissions must still be drastically cut. The hazards to energy security of relying on imported gas, especially in Europe, have also been highlighted by the havoc caused to the global energy market that followed Russia's invasion of Ukraine.

Burning natural gas is still an important contributor to pollution that needs to be decreased to satisfy global climate targets, even though it produces far less CO2 (and other pollutants) than burning coal or oil. That being said, natural gas's main ingredient, methane, is a strong greenhouse gas. Even before any fuel is burnt, oil and gas extraction processes themselves significantly contribute to climate change through leaks from gas pipelines and processing facilities, as well as the deliberate venting or flaring of unneeded gas at production sites.

Thus, the world turned to the next big thing; the fuel source that is dominating the energy industry: hydrogen fuels. In national and worldwide initiatives, hydrogen is being viewed more and more as a potential player that might be used in a variety of industries, including transportation and industrial. Major global economies are creating roadmaps and plans specifically for hydrogen. The many stages of the hydrogen pathway—generation, transport, storage, distribution, and ultimate uses—are being addressed by research initiatives and industry applications. As suggested by a Climate Change Officer, "[Egypt] is under so much pressure now to take advantage of its natural gas supply and is trying to add hydrogen fuels to the mix to become a global leader. This plan will only work if the state of the economy is fit enough to support it. It has been a tough year with many ups and downs in the [oil and gas field], but its always cyclical and ready to bounce back."

An alternative geopolitical map may be created by hydrogen. Governments will also take traditional energy geopolitical concerns like supply and demand security and diversification into account when discussing hydrogen geopolitics. Technological domination and resource availability will become more and more important factors in geopolitics. To maintain or gain a geopolitical role and the resulting income, major producers of oil and gas will need to become safe and dependable exporters of hydrogen. In addition to producing a portion of their hydrogen needs locally, certain nations will need to import hydrogen (green and/or blue) in order to reach their climate objectives. Hence, strengthening Egypt's goal to become a regional hub.

In conclusion, in an effort to lessen its dependency on fossil fuels and its impact on the environment, Egypt has made a strategic dedication to renewable energy. Egypt's renewable energy sector's advancements offer optimism for energy security and sustainable development in the Middle East and North Africa as well as globally.


Since 2017, the nation's greenhouse gas (GHG) emissions have been gradually declining. Due in large part to improvements in energy industry efficiency and support for renewable energy projects, it was able to partially minimize GHG emissions from population and economic development.

EGYPT'S OIL & GAS SECTOR
A YEAR OF PROGRESS

BY SARAH SAMIR

The Egyptian oil and gas sector witnessed significant developments in 2024, marked by a renewed focus on exploration and production (E&P) activities, strategic bid rounds to attract foreign investment, and the implementation of new investment incentives to bolster industry growth. Addressing the critical issue of arrears payments to partners was also a key focus, aiming to foster a more stable and attractive investment climate.

E&P Empowered by Bid rounds

In 2024, Egypt has made significant strides in oil and gas exploration and production. In October 2024, Minister of Petroleum and Mineral Resources Karim Badawi announced that the oil and gas sector's production stood at 1.4 million barrels of oil equivalent per day (mmboe/d). He emphasized that new production was achieved during the first quarter of the 2024/25 fiscal year, including an increase of 30,000 barrels of oil per day (bbl/d) and 133 million cubic feet per day (mmcf/d) of natural gas.

On the other hand, Badawi stated in December that the sector's 2025 plan encompasses several key initiatives, including: intensifying research and exploration efforts, accelerating oil and gas production, expanding the utilization of natural gas, and maximizing refining and petrochemical capacities.

Accordingly, the year 2024 witnessed the Egyptian Natural Gas Holding Company (EGAS) launching a new international bid round for the exploration and exploitation of natural gas and crude oil across 12 blocks in the Mediterranean and Nile Delta, comprising 10 offshore and 2 onshore blocks. This initiative is part of Egypt's broader strategy to enhance exploration activities in the Mediterranean, which is recognized for its substantial natural gas potential.

The 2024 bid round marks the eighth such initiative launched by the Ministry of Petroleum and Mineral Resources, utilizing the Egypt Upstream Gateway (EUG) platform. This digital tool facilitates access to updated technical data and streamlines the bidding process, thereby attracting new investments in the sector. The focus on the Mediterranean region aligns with the increasing global interest in natural gas, positioning Egypt as a key player in the energy market. This comes as the EUG provides a timely platform to attract investments as the portal is capable of enabling investors to access comprehensive data and take advantage of the opportunities it presents.

2024 New Investment Incentives

In August 2024, Badawi unveiled a new incentive package designed to stimulate oil and gas production. This aligns with the overarching goal of maximizing output in collaboration with our exploration and production partners. The Minister underscored that this move signifies the petroleum sector's dedication to enhancing the investment climate, encouraging partners to invest more heavily, and ultimately boosting gas and crude oil production. Recognizing investments as the bedrock of production growth, these incentives encompass new mechanisms tied to exceeding current production levels.

THE YEAR 2024 HAS BEEN A PIVOTAL YEAR FOR EGYPT'S OIL AND GAS SECTOR, CHARACTERIZED BY SIGNIFICANT ADVANCEMENTS IN EXPLORATION AND PRODUCTION ACTIVITIES, STRATEGIC INITIATIVES TO ATTRACT FOREIGN INVESTMENT, AND A PROACTIVE APPROACH TO ADDRESSING OUTSTANDING ARREARS.

Furthermore, they incentivize increased exploratory and developmental drilling activities. The revenue generated from this augmented production will be utilized to settle a portion of our partners' dues and to augment gas and oil supply, thereby mitigating the gap between production and domestic consumption.

Resolving Outstanding Debts

The Egyptian General Petroleum Company (EGPC) has accrued arrears to international oil companies (IOCs), estimated between $4 billion and $5 billion. These arrears have arisen due to a combination of foreign exchange shortages and various structural issues, including declining domestic gas production, rising domestic consumption that limits gas export opportunities, and increased subsidies provided by EGPC to the electricity sector, as revealed in April 2024 in the International Monetary Fund (IMF)'s First and Second Review.

In the past few months, the Ministry has been successfully implementing new mechanisms for paying partner arrears, including ensuring regular fixed payments to maintain payment continuity and sustainability.

In July 2024, Prime Minister Mostafa Madbouly stated in a press conference that between 20% to 25% of the value of arrears due to foreign companies have already been paid, depending on each company's arrears. Meanwhile, Dana Gas announced in December 2024 that it received around $20 million payment from the Egyptian Government. This amount takes the funds received in Egypt in Q4 2024 to $24.5 million.

The year 2024 has been a pivotal year for Egypt's oil and gas sector, characterized by significant advancements in exploration and production activities, strategic initiatives to attract foreign investment, and a proactive approach to addressing outstanding arrears. The government's commitment to enhancing the investment climate is evident in the successful launch of new bid rounds and the introduction of incentive packages aimed at boosting production levels.

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REFINING SKILLS, POWERING PROGRESS

EGYPT'S JOURNEY TO EMPOWER HUMAN CAPACITY DURING 2025

BY FATMA AHMED

In the ever-evolving landscape of energy and resources, the true measure of success lies not only in the richness of what lies beneath the surface, but in the strength of the people who bring it to life. Recognizing this, the Egyptian Ministry of Petroleum and Mineral Resources (MoPMR) has embarked on an ambitious journey during 2025 to develop its human talents. Through strategic investments in education, training, and innovation throughout the year, the Ministry aimed to cultivate a generation of skilled professionals equipped to lead the future of the petroleum sector.

Programs and Initiatives

2024 witnessed several training programs as well as workshops organized by either the MoPMR or its companies to elevate the skills and qualification of its workforce to be able to lead the sector. In February, the Ministry held methane reduction technology workshop to spread awareness about the importance of reducing methane emissions, presenting the available opportunities and modern technologies to reduce the emissions in the sector. It also discussed the successful international experiences in this regard. The workshop was held in cooperation with the Center of Excellence for Energy Efficiency and Operational Performance and Carbon Limits Company.

Additionally, the Ministry launched the ToT program for training the trainers of the sector, during July 2024. This program is very important in building the operational capabilities of engineers and technicians who are fresh graduates in Upper Egypt, especially those who will operate the Diesel Complex of Assiut National Oil Processing Company (ANOPC). It provides training programs in refinery operations and maintenance. It was conducted in cooperation with the specialized French company IFPT (affiliated with the French Petroleum Institute.

In October, Petrosafe disclosed the end of the first training program for Rig Operability Inspection and Safety Acceptance (ROISA); it was about how to conduct comprehensive inspection of rigs to ensure their safety before starting operations, which reduces potential accidents. In the same month, Petroleum Marine Services Company (PMS) finished an important phase in its strategic project for developing the human capabilities lunched in 2023. The project focused on developing leadership and management competencies.

In December, the Ministry kicked off the training program on the Process Safety Management Foundation (PSM) which aims at enabling the trainees on applying best practices in process safety management at the oil and gas sector.

Also, the sector adopted diverse initiatives for supporting its people through boosting their awareness. The Egyptian General Petroleum Company (EGPC) conducted seminars during September supporting health, safety, and environment (HSE) awareness among the EGPC's employees in cooperation with the Petroleum Safety and Environmental Services Company (PetroSafe).

The Ministry announced also the commence of a scientific awareness campaign for all companies on how to deal safely with chemicals. This campaign focused on identifying chemical hazards according to the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) and the methods for controlling them.

For their part, the national companies participated in these initiatives. Assiut Oil Refining (ASORC) and Sidi Kerir Petrochemicals Company (Sidpec) launched the initiative "Your Safety Matters to US", promoting a culture of occupational safety and health among workers at operation and production sites.

Supporting Sector's Future Talents

Aligning with the MoPMR's strategy, the international companies played a vital role in supporting the Ministry's journey of building talented leaders in the sector. In January 2024, Enap Sipetrol Egypt organized an educational trip for 20 students from Ain Shams University students and Al Amal Group to visit the West Amer concession 3D seismic operation in the Eastern Desert.

Also, the sector's companies have an effective mark in preparing the future talents. Khalda Petroleum Company implemented a summer training program for the university students in technical skills. It involved 1,426 students who received their certificates of completion.

In addition, Enppi celebrated, in September, the successful conclusion of training university students as part of the summer training program. The program included 623 students and provided training in 436 engineering specializations and 187 non-engineering specializations across the company's various departments during a period of more than two months.

Remarkable Partnerships

In cooperation with MoPMR, the international companies entered partnerships with the Egyptian sector to support its future leaders' skills. In May, Shell held a discovery session for Egyptian university students as preparation for participating in the Shell Eco-Marathon (SEM) competition in Qatar in 2025. The SEM is a remarkable platform for students to showcase their talents and contribute meaningfully to a more sustainable future.

Also, Badr El Din Petroleum Company (Bapetco) signed a cooperation protocol with the Arab Academy for Science, Technology & Maritime Transport (AASTMT) to give training opportunities for the academy's students annually in various fields at the company's sites. Additionally, in July, Huawei hosted 20 candidates from the graduates of MoPMR's Program for the Qualification of Young Leaders and Middle Management to praise them for their technological capabilities.

ExxonMobil Egypt entered a strategic partnership with ELSEWEDY UNIVERSITY OF TECHNOLOGY (SUT)- POLYTECHNIC OF EGYPT to promote the implementation of the Polytechnic model and boost technological skills among the students.

Work Shadowing

One of the important programs launched by the Ministry was the Work Shadowing project as part of the advanced phase of the Young Leaders and Middle Management Program. It aims to bring together leaders and their expertise with the program's youth through assigning them the tasks of assistant chairmen of boards of directors in various companies during the period of the shadowing project, which lasts for 18 months. The project started in November by appointing 16 graduates from the program in leadership positions at the Ministry, EGPC and holding companies, as well as 15 graduates during October. This is in addition to appointing another six in leading positions at the Egyptian Mineral Resources Authority (EMRA) in December.

Technical Schools and Centers

Establishing the technical schools is the most important project embraced by the MoPMR. It targets providing in practice, application, and technology that are related to the industry. One of the significant established schools is Zohr School for Applied Technologies in Port Said. December 2024 witnessed the graduation ceremony of the first batch from.

Additionally, the sector is currently building a Hazard Prevention Training Center in Al-Sokhna targeting to provide theoretical and practical training services in the field of safety and risk management for all employees in oil and contracting companies.

As Egypt's MoPMR continues to invest in human capabilities, it is not merely fueling its economy, but also empowering a generation of innovators and professionals ready to shape the future. With that, Egypt's energy sector will continue to shine brightly, not just as a regional energy hub, but as a global standard for human-driven excellence.

NAVIGATING SHIFTING SANDS

Egypt's Petroleum Sector 2025 Outlook Between Meeting Energy Demands and Addressing Geopolitical Challenges

As a senior professional in Egypt's petroleum sector, particularly within the exploration and agreements domain, I give much attention to how global and regional dynamics as well as legal policies shape our industry. Today, as we approach 2025, Egypt's energy sector stands at a critical juncture, shaped by fluctuating markets, shifting geopolitics, and evolving policies. These influences ripple through every side of the industry, from investment decisions to energy pricing, creating both opportunities and challenges for a huge country like Egypt, which aspires to meet its energy needs and solidify its position as a regional energy hub.

The ongoing reconfiguration of global energy policies, underscored by new U.S. Administration and OPEC production strategies, would significantly impact oil and gas prices. With U.S. President Donald Trump's renewed leadership, U.S. energy policy and laws are expected to have stronger support for the oil and gas industry with a slowdown in energy transition plans. It is expected that Trump's energy policies and laws would undergo a significant recalibration regarding energy security with a strategic focus on building up the federal reserve reducing reliance on Middle Eastern oil and boosting domestic oil production, reinforcing his administration's "America First" approach. This approach prioritizes energy independence through incentives for shale oil and gas exploration and easing regulatory frameworks, enabling the U.S. to emerge as one of the world's top producers of crude oil and natural gas. While this may stabilize U.S. energy security, it could also drive prices down and shift exploration and production (E&P) investment dynamics in global trade, compelling Egypt to adapt its strategies to maintain competitive positions.

In the same context, OPEC outlook believes that the global demand for oil and gas will decrease throughout 2025, However, this decline is juxtaposed with an expected upward pressure on prices driven by controlled production cuts, making it logical to see OPEC+ announcing that it will extend its adopted production cut plan to regulate supply and maintain price stability. These decisions align with its 2025 outlook, which projects a decrease in global oil demand as well. Accordingly, balancing domestic energy demands with volatile global oil prices may become a critical challenge for Egypt both ways. OPEC+ production cuts, aimed at driving prices upward, could complicate Egypt's economic reforms by increasing fiscal pressures. The government's plan to reduce energy subsidies aims to ease fiscal strain but risks elevating inflation, impacting household incomes and overall economic stability.

On the other hand, higher oil prices may also present an opportunity for Egypt. While they increase domestic energy costs, they simultaneously boost the profitability of Egypt's competitive natural gas exports. However, a significant increase in U.S. production leading to excess supply and a subsequent price decrease could pose a challenge for the Egyptian government.

Moreover, I believe the Egyptian petroleum sector remains resilient yet adaptable in the face of these challenges, ensuring it meets domestic energy demands, especially during the peak summer months when consumption rises significantly. From my perspective, the petroleum sector should prioritize a dual approach of increasing production and ensuring timely procurement of imports at times of price decrease. Increasing oil and gas production will require targeted investments in exploration and enhanced recovery techniques, however, partnerships with international oil companies (IOCs) can accelerate access to advanced technologies and capital. Simultaneously, securing adequate resources for LNG and crude oil shipments through long-term agreements and spot purchases will be vital to offset supply shortages.

Not to forget the tip of the iceberg, the recent regional geopolitical shifts. In particular, the evolving Syrian conflict that further intensifies these shifts, especially in regional energy logistics. The prolonged Syrian conflict, seeing the recent and past escalations has destroyed planned pipeline infrastructure, disrupting major regional trade routes that were once expected to ease regional natural gas flows to Europe. However, the damaged pipeline infrastructure has left a void that Egypt is uniquely positioned to fill through its LNG trade, thanks to its LNG liquefaction plants in the Mediterranean. Though, following the recent power shifts in the Syrian situation, emerging coalitions hint at reconstruction efforts that could prioritize reviving gas pipeline trade through Syria and Turkey. Such projects, while requiring significant investment and political

coordination, could rejuvenate traditional pipeline routes with the support of other regional players and this poses a challenge to Egypt's ambitions as a regional LNG export hub.

Therefore, in 2025 I believe that Egypt has the opportunity to assert itself as a reliable energy hub. Its strategic geographical position at the crossroads of Africa, the Middle East, and Europe, combined with well-developed infrastructure such as the Suez Canal and LNG facilities, positions Egypt as an alternative transit route for regional energy trade.

Egypt should navigate these developments carefully, leveraging its infrastructure and strategic positioning to sustain its role in the regional energy market. Rebuilding the Syrian pipelines represents an enormous financial and logistical undertaking, likely requiring years before restoration can fully resume. In this vacuum, our established infrastructure and growing natural gas output give us a chance to step into a leadership role, not only stabilizing domestic and regional energy supplies but also attracting foreign direct investments. However, the road ahead requires a significant commitment to infrastructure enhancement and economic prowess with sophisticated commercial diplomacy to fully seize these opportunities.

In a nutshell, Egypt's oil and gas sector faces a transformative year in 2025, marked by both challenges and opportunities. By addressing geopolitical risks, and encouraging a stable investment climate, Egypt can secure its role as a regional energy leader. Strategic planning and collaboration will be essential to turn potential hurdles into pathways for growth, ensuring energy security and economic stability.

I believe the Egyptian government and the current leadership in the Ministry of Petroleum and Mineral Resources consider meeting the nation's energy demands without seeing repetitive outages as seen in the past years a top priority objective that can be met through a carefully constructed blueprint for action, supported by a Perceptive evaluation of the world around us and a keen foresight into what lies ahead. To thrive, the Egyptian petroleum sector should strengthen its strategic partnerships, align with global technological advancements, and prioritize infrastructure investments to remain competitive in the rapidly evolving global energy market. As the region faces prolonged disruption, Egypt's ability to provide stable and secure energy solutions is key to solidifying its leadership amid regional disruptions before regional players may pursue other plans that could potentially erode this position.

BY MAHMOUD RASHED
Exploration Assistant General Manager - Egyptian General Petroleum Corporation (EGPC)

2024: PIONEERING INNOVATIONS FOR A SUSTAINABLE FUTURE

BY DOAA ASHRAF

Aligning with the global shift in the energy transition, oil and gas companies have diversified their portfolios with a focus on emissions reduction in their operations and increasing their investments in lower-carbon projects.

At the heart of this shift lies technology that enables oil and gas companies to balance traditional energy production with the demands of a greener future.

The year 2024 saw several technological advancements with AI standing at the forefront to increase production, improve efficiency, and reduce emissions in the oil and gas industry.

Innovations in Emissions Reduction

One notable advancement is flare.IQ technology that measures data on flare system performance, including temperature, pressure, vent gas velocities, and gas composition, enhances combustion efficiency and minimizes emissions.

This emissions abatement technology was developed by Baker Hughes and adopted by BP in its upstream oil and gas operations at 65 flares across seven regions.

Meanwhile, Zero Emission Power Station (ZEUS) technology employs advanced oxyfuel combustion and burns untreated gas while capturing 100% of the CO2 emissions. The carbon captured is then immediately injected into a reservoir for permanent storage or can be used to increase the production of both oil and gas before being permanently stored.

Another technology for emissions reduction is Bluenzyme™. It is an enzymatic CO_2 capture solution designed for small and medium emitters in hard-to-abate sectors.

The technology, developed by Saipem, will be applied at the Herambiente waste-to-energy plant in Italy. It aimed to capture about 90% of the emissions from one of the plant's two lines, amounting to 64,000 tons of CO_2 per year, equivalent to the annual emissions of around 37,000 cars.

Supercomputing and AI Innovations

Supercomputing is the highlight of the 2024 technological evolution as the HPC6 was launched. It is ranked as one of the world's most powerful supercomputers. Developed by Eni, HPC6 delivers a peak performance of 606 PFlops (600 quadrillion floating-point operations per second). It uses HPE Cray EX4000 systems with AMD EPYC CPUs and AMD Instinct accelerators.

Furthermore, this computer supports a wide range of applications, including AI modeling, simulation, geological and fluid dynamics studies for CO2 storage, battery development, biofuel supply chain optimization, and plasma behavior simulation in magnetic confinement fusion.

Unlike most AI digital solutions, Neuro™ Autonomous Geosteering technology stands out for guiding drilling operations without the need for human intervention. It interprets real-time subsurface data to ensure optimal well placement within the most productive reservoir layers. Leveraging advanced cloud and edge AI capabilities, Neuro™ meticulously selects the best drilling route using high-fidelity downhole measurements, resulting in precise and efficient drilling operations.

During its deployment in Ecuador, the system, developed by SLB, completed 25 autonomous trajectory changes in a single operation, demonstrating its ability to adapt quickly to real-time conditions and significantly enhance well performance.

Another innovative solution is RoboWell. It is a cutting-edge cloud-based AI solution designed to autonomously operate oil and gas wells. This technology continuously monitors and adjusts operations according to changing conditions, maximizing production while minimizing emissions. Deployed initially across 10 wells in the NASR offshore field, RoboWell is set for further implementation across over 300 wells in ADNOC's operations.

Overall, this year has undergone significant technological advancements in the oil and gas industry, paving the way for a lower-carbon future. With increased collaboration among industry leaders, the sector is well-equipped to thrive while meeting growing global energy demands.

THE YEAR 2024 SAW SEVERAL TECHNOLOGICAL ADVANCEMENTS WITH AI STANDING AT THE FOREFRONT TO INCREASE PRODUCTION, IMPROVE EFFICIENCY, AND REDUCE EMISSIONS IN THE OIL AND GAS INDUSTRY.

THE BADAWI FACTOR

EGYPT'S NEW PETROLEUM MINISTER UNEARTHS THE ECONOMIC POTENTIAL OF THE ENERGY SECTOR

BY NADER RAMADAN

Still performing strongly in its post-COVID economic trajectory, Egypt's energy sector throughout 2024 has witnessed a productive year of overcoming insurmountable challenges and promising reforms guaranteed to stimulate long-term growth. Under the new leadership of the nation's new Minister of Petroleum and Mineral Resources Karim Badawi, the energy sector went through a series of substantial changes and reforms that are bound to positively impact the national economy for the year to come.

One of the most important accomplishments that Minister Karim Badawi has realized is emphasizing the vital role of the Egyptian energy sector within the national economy by contributing significantly to the nation's economic growth. Last March, Minister of Planning and Economic Development Hala El Said, announced that the Economic and social development plan for fiscal year (FY) 2024/2025 would target a growth rate of 4.2%, after the Cabinet's approval of the Economic and Social Development Plan for FY 2024/2025.

The plan also calls for an increase in the share of private investments to approximately 50% of total investments. It makes clear that the relative distribution of government investments includes funding for the second phase of the presidential initiative "Decent Life"—42.4% for human development, 25.4% for water and sanitation projects, 8.4% for construction projects, 7.1% for transportation and storage projects, 3.8% for energy projects, 3.6% for communication and information technology projects, 3.1% for agricultural projects, and 6.1% for other government investments.

With investments topping the agenda of Badawi since the beginning of his term, he had made great strides in ensuring that investment incentives contribute to Egypt's general economic growth and target growth rate as announced by El Said. In August, he announced an initiative to use new mechanisms that will seek to raise production above the present levels as well as expand production operations and exploratory and developmental drilling. In order to close the gap between output and local consumption, the money made from the increased production will be used to pay off some of the partners in the petroleum sector and to supply more gas and oil. Additionally, it will help lower the monthly import bill, which will increase both parties' financial resources, boost investment in exploration and production, and bring in money for the government. Additionally, it will improve national security by supplying more petroleum from Egyptian production.

Badawi has also worked tirelessly to secure the investments of prestigious financial organizations including the US-based Export-Import Bank (EXIM) which will pump up to $552 million. With over half a billion in funds being injected into the market, Egypt's energy sector is set on achieving its targeted growth.

Operational efficiency has also played a key role in enabling Egypt's energy sector to ramp up production to the appropriate levels to meet the stated objectives of the government. With the improvement of performance on the field further contributing to national growth, Badawi has also worked to maintain this momentum by pushing for an extensive digitalization agenda. This year he has held a number of talks with leading firms in digitalization, including Schneider Electric which can effectively provide the necessary solutions to boost performance onsite. His notable talks with Weatherford this September regarding digitalization also represented a significant step forward to the already impressive work being done by the company in cooperation with Khalda Petroleum Company in the Western Desert. Recently, digital technologies have been applied to the operation of 100 wells for the purpose of measuring, monitoring, and analyzing production data in real-time. So far, thirty wells have been connected to the new digital system as part of the project's initial phase. By 2025, the next phase hopes to have completed 70 more wells. Additionally, the business is working on installing cutting-edge digital measurement equipment in storage tanks. These efforts fall within the framework of ensuring that oil and gas assets, especially in the Western Desert, contribute significantly to the national economic growth rate.

Economic policies and effective leadership are two factors that go hand in hand to make success happen. Though a lot remains to be done, Egypt's energy sector has come a long way thanks to the efforts of the Egyptians and the ambitions of the sector's new minister. In conclusion, it is essential that Egyptian petroleum treads a path towards turning the nation into an energy trader based on the principles of open and free market economics that incorporate advanced technologies, sustainable solutions, innovative ideas, and the firm belief that energy inclusivity is the way to the future with a diverse energy mix.

ECONOMIC POLICIES AND EFFECTIVE LEADERSHIP ARE TWO FACTORS THAT GO HAND IN HAND TO MAKE SUCCESS HAPPEN. THOUGH A LOT REMAINS TO BE DONE, EGYPT'S ENERGY SECTOR HAS COME A LONG WAY THANKS TO THE EFFORTS OF ALL EGYPTIANS AND THE AMBITIONS OF THE SECTOR'S NEW MINISTER.

GLOBAL ENERGY MARKETS ON EDGE

HOW MIDDLE EAST AND UKRAINE CONFLICTS SHAPE 2025

BY IHAB SHAARAWY

> THE PROSPECTS FOR ISRAELI CONFLICTS WITH HAMAS IN GAZA, IRAN, AND ITS PROXIES IN YEMEN AND LEBANON IN 2025 ARE DEEPLY CONCERNING, REFLECTING A HIGH LIKELIHOOD OF ESCALATION AND REGIONAL INSTABILITY.

2025 is poised to be a year of heightened geopolitical tension with significant implications for global energy markets. Several volatile conflicts, including the ongoing war in Ukraine, the Israeli-Palestinian conflict, and the instability in Syria and Iran, threaten to disrupt the global order and fuel further uncertainty.

The war in Ukraine has already had a profound impact on energy markets, leading to increased volatility in oil and gas prices. The potential for further escalation in the conflict, coupled with the possibility of renewed tensions between Russia and the West, could exacerbate these disruptions.

The Israeli-Palestinian conflict remains a major source of instability in the Middle East, with the potential to trigger wider regional conflicts. Any significant escalation in violence could disrupt oil supplies from the region and further destabilize global energy markets.

The situation in Syria and Iran is also fraught with uncertainty. The continued civil war in Syria has created a power vacuum that has been exploited by various factions. The Iranian nuclear program remains a major source of concern, with the potential to trigger a regional arms race.

These conflicts, along with other regional tensions, are likely to create a volatile environment for global energy markets in 2025. The potential for supply disruptions, coupled with increased geopolitical risk, could lead to further price volatility and exacerbate the challenges facing the global economy.

The Ukraine War in 2025: A Precarious Outlook

The Ukraine war remains a pivotal conflict shaping the geopolitical dynamics of 2025. While Donald Trump has promised to end the conflict upon his return to the White House, the fundamental disagreement between Ukrainian and Russian visions of a settlement makes any resolution highly unlikely. The geopolitical landscape in 2025 remains tense as the war in Ukraine continues to dominate discussions in Moscow, Brussels, and beyond. The Russian President, Vladimir Putin, maintains his vision of military superiority and commitment to achieving Russia's war targets, while European leaders emphasize unwavering support for Ukraine. The European Union has adopted its 15th sanctions package against Russia and is working to bolster Ukraine's military capabilities, reflecting a hardened stance despite the looming uncertainties of Donald Trump's return to the U.S. presidency.

Trump's push for a resolution to the Ukraine conflict adds a layer of complexity, with European leaders wary of any ceasefire or deal that could enable Russia to regroup and pose a greater threat in the future. EU leaders remain focused on ensuring Ukraine has the resources to continue its defense, understanding the risks of abandoning Kyiv to fight alone. Meanwhile, Putin touts daily territorial gains and unprecedented damage to Ukraine's infrastructure, underscoring his belief in Russia's military momentum and his resolve to achieve strategic objectives.

For Ukraine, the outlook is precarious. Faced with pressure from Trump's administration to negotiate, unyielding military attack from Russia, and the expectations of European allies, President Zelensky has limited options. Kyiv must balance its defensive efforts with diplomatic maneuvers, hoping that Europe strengthens its own defense capabilities. The coming year will test the resolve and unity of Ukraine and its allies, as well as their ability to deter Russia and safeguard European security.

Syria: A New Chapter or Deeper Chaos?

The Syrian conflict, now entering its 14th year, has undergone a significant transformation with the fall of Damascus to nonstate armed groups and the flight of President Bashar al-Assad to Moscow in late 2024. This unexpected turn has created both challenges and opportunities, raising critical questions about Syria's prospects in 2025. The country stands at a crossroads, with a fragile hope for peace and stability tempered by the risks of renewed violence and deepening humanitarian crises.

Syria's humanitarian situation remains dire, with 72% of the population reliant on aid. Hyperinflation and the collapse of the Syrian currency have made food unaffordable, while malnutrition rates among children under five are alarming. The effects of the 2023 earthquakes and persistent drought have compounded the crisis. In 2025, these pressures are likely to worsen, particularly if conflict persists or escalates. Overcrowded camps and damaged infrastructure could exacerbate health risks, including the spread of cholera.

The newly ascendant armed opposition faces internal challenges. The potential for infighting among factions with differing ideologies and regional affiliations could destabilize the situation further.

The possibility of Syria becoming a battleground for international rivalries remains high. Increased Turkish military actions in northern Syria and the involvement of external powers could derail stabilization efforts. The international community has shown a renewed interest in supporting Syria's recovery, but such interventions must avoid reigniting proxy conflicts.

Iran-Israel Showdown Looms

The prospects for Israeli conflicts with Hamas in Gaza, Iran, and its proxies in Yemen and Lebanon in 2025 are deeply concerning, reflecting a high likelihood of escalation and regional instability.

The Gaza war, entering its 15th month, remains a central flashpoint. Israel's military campaign has inflicted devastating casualties, while Gaza's humanitarian crisis continues to worsen. The potential for ceasefire negotiations remains slim, particularly with external political dynamics, including the return of the Trump administration, which may embolden Israel to pursue more aggressive policies. A forced displacement of Palestinians or a full annexation of Gaza would trigger widespread regional unrest, further straining Israel's relations with neighboring states.

In the main time, Iran's direct and proxy confrontations with Israel are likely to escalate, particularly in light of a renewed U.S. "maximum pressure" campaign. Tehran's support for Hezbollah in Lebanon and the Houthis in Yemen makes these groups critical elements in its broader strategy to counter Israel. In Lebanon, despite a fragile ceasefire, Israel's recent military actions and assassination of key figures suggest it views ongoing conflict as a means to weaken Hezbollah. Similarly, in Yemen, Israel's military efforts to target the Houthis will likely intensify. However, the Houthis' geographic distance and strong local support present significant challenges for Israel's military strategy.

The intertwined nature of these conflicts suggests a potential for broader regional war. Any Israeli strikes on Iranian nuclear facilities could provoke a direct confrontation with Tehran, dragging the U.S. and other actors into the conflict. Meanwhile, increased Houthi maritime and missile strikes and Hezbollah's retaliatory actions in Lebanon could destabilize critical trade routes and exacerbate global tensions. The possibility of involvement of external powers like Russia and China in supporting Iran and its proxies adds another layer of complexity, setting the stage for heightened geopolitical competition in 2025.

CLIMATE CHANGE BETWEEN REALITY AND THE FUTURE

Recently, climate change has become a global topic of discussion, with various conferences being held on the subject, such as COP 27 in Egypt and COP 28 in the United Arab Emirates.

However, the discussions have not yielded significant results in mitigating climate change, reducing net-zero carbon emissions, or limiting the increase in global average temperature to well below 2°C above pre-industrial levels.

With the support of global conferences and media tools, such as social media sites and programs, people are gradually becoming more aware of the repercussions of global warming.

Carbon emissions have been the main source and reason for climate change across the globe over the years, but many are still turning a blind eye to the challenges facing the planet.

Oil and gas facilities whether upstream, mid or downstream are considered one of the main sources of equivalent direct and indirect carbon emissions.

Tangible facts are the most effective and attractive method for human beings to activate their natural endowment to take prompt actions.

1 in each 5 deaths around the world is due to air pollution and harmful emissions, with 6.5 million human beings are losing their lives annually, according to May 2022 study by the Lancet Planetary Health journal.

In 2021, 144 billion cubic meters of gas were burnt at upstream oil and gas facilities across the globe without any necessity, which resulted in more than 400 million tons of equivalent tons that were emitted to the environment.

As it has been mentioned, we, as human beings, only take actions when tangible risk alarm is activated, otherwise we consider that all is well.

The previously mentioned facts are, no doubt, considered a wakeup call for human beings to take a prompt and serious steps towards putting an end to harmful CO_2 emissions.

As mentioned in Al-Quran, whoever saves a life, it would be as if he saved the life of all mankind. Nothing is worse than losing lives and nothing is more valuable than a human being's life.

In addition, a serious action plan needs to be adopted to use cleaner sources of energy as more environmentally responsible alternatives to meet the global market's needs.

However, effective solutions and successful government policies are the responsibility of decision-makers all over the world, necessitating a real action plan to promote clean and sustainable sources of energy.

Eng. Mohamed Kamal Gaber
Section Head at Process Department, Engineering Affairs, PETROJET

SUCCESSFUL EGYPTIAN CASE STUDIES FOR EFFECTIVELY MONETIZING FLARE GAS

It is widely known that flare gas emissions drive high global warming and significantly contribute to climate change. According to estimates based on satellite analyses (2020), Egypt ranks 13th among the top gas-flaring countries in the world. Yet capturing over 2 billion cubic meters of flare gas within Egypt could cover 5% of the national energy needs and add $300 million per year to the national economy.

Egypt and the European Bank for Reconstruction and Development (EBRD) are part of the World Bank-led Zero Routine Flaring by 2030 (ZRF) initiative. Flare gas can be recovered in the form of recycled gas for production, power generation, fuel gas to fired heaters, feed to gas lift network, NGL product, and condensate recovery. It can also be converted from gas to liquids to produce synthetic fuels (GTL). Moreover, it can be used as feedstock for the petrochemical industry. I will clarify how we could minimize the amount of gas being flared to environmentally acceptable limits with good financial revenue by elaborating on three successful Egyptian case studies.

The first case study is in the Eshpetco field, where we minimized the amount of 2.5 million standard cubic feet per day (mmscf/d) flared gas to 0.5 mmscf/d and reduced the CO_2 emissions by 25,000 tons annually, in addition to achieving 2 MW power generation and producing 128 bbl/day (11 tons) of NGL. The second case study is in the Osoco field. In this project, we successfully minimized the amount of 5 mmscf/d, which is equal to 800 bbl of oil daily and cause 120,214 metric tons of Co2 emissions to 0.5 mmscf/d while recovering flare gas in new forms by producing 3 mmscf/d of sales gas, 50 bbl/day condensate and 30 tons/day of products (propane & butane). The third case study is in the Kalabsha field in Khalda, where we also succeeded in cutting down on flare gas, reducing it from 8 mmscf/d flared gas to 1 mmscf/d . Hence, gas production was increased by the same volume, achieving a gain of $5.1 million per year and reducing CO_2 emissions by 150,000 tons in addition to replacing all diesel generators in the field with main gas generators.

Egypt accepted the challenge of facing the journey to net zero flaring with confidence and achieving sustainable economic growth and low-emission development in various sectors. Egypt is working on developing the technologies necessary to reduce emissions and greenhouse gases to counter climate changes to contribute in turn to the world's plan to reach carbon neutrality to transform the planet into a clean, low-emissions planet.

Eng. Mohamed Dwiedar
Department Manager of Reservoirs Surveillance - Egyptian General Petroleum Corporation (EGPC)

EGYPT'S ENERGY TRANSITION

A FOCUS OF ELADL PARTY ROUNDTABLE

حزب العدل

On December 28th, 2024, the ElAdl Party hosted a roundtable discussion titled "The Impact of Energy Prices on the Egyptian Economy," in which it provided a platform for conferring about the Egyptian energy sector and its effect on economy.

The event brought together a distinguished group of experts and specialists in energy, economics, and legislation. Participants included Mohamed Fouad, CEO of Egypt Oil & Gas and Secretary General of the Egyptian Gas Association (EGA); Yossra Asaker, Senior Energy Specialist at the World Bank; Ayman Heiba, Head of the Sustainable Energy Division at the Cairo Chamber of Commerce; Alaa Kamal, CEO of INP Egypt and Vice President of the German-Arab Chamber of Industry and Commerce; Medhat Nafie, Economic Expert; Samir Al Kareish, Former Director of Technical Affairs at the Organization of Arab Petroleum Exporting Countries (OAPEC); Khaled Naguib, Chairman of the Board of Directors of Hydrogen Egypt; Osama Fouzi, Founder and Chairman of the Executive Council of the Hydrogen H2lligence Platform; Mustafa Sharbini, Ambassador of the European Climate Pact and Head of the COP29 Observer Delegation; and Haitham Al-Saeed, Member of the Central Energy Affairs Bureau at the Future of Egypt Party.

The roundtable focused on three key axes, including the impact of energy prices on the Egyptian economy by studying the repercussions of rising prices on various sectors such as industry, transportation, and housing and their impact on inflation rates; the role of legislation in managing energy resources, including attracting renewable energy investments; as well as Egypt's energy transition strategies, emphasizing green hydrogen, renewable energy, and supporting infrastructure.

It was moderated by MP Ahmed Qanawi, a member of the Senate and Secretary-General of the ElAdl Party, along with Mohamed Attia, Secretary of the Production and Logistics Policies Unit of the ElAdl Party.

Energy Prices Impacting Economy

In the first axis, the discussion centered on the reality of energy prices in Egypt and their economic impact. Participants analyzed price trends at both local and global levels, emphasizing the role of supply and demand in shaping them.

The dialogue explored the implications of energy prices on various economic sectors, including industry, agriculture, and services, and their influence on production and costs. Additionally, the impact of energy prices on local market inflation and mechanisms to mitigate these effects were discussed. The conversation

also highlighted energy prices as a critical factor in either attracting or deterring investments and their direct impact on economic growth.

In this regard, Nafie confirmed that the economic slowdown has begun to appear noticeably as a result of the significant increase in interest rates, which seek to catch up with runaway inflation rates. Nafie pointed out the crucial role that energy plays in determining the prices of other commodities, whether these products are used as inputs for production, as a source of energy for transportation and storage, or at all stages of the production process until they reach the consumer. All of this has a direct impact on prices, and thus on inflation rates.

Meanwhile, Asaker stated that the relationship between the economy and energy faces major challenges. For example, in 2018-19, before subsidy cuts, we were close to achieving a complete subsidy removal, but external shocks brought us back to square one. We must not forget that the consumer is now paying 50% to 70% more than he was paying in 2019, but with the liberalization of the currency price, the citizen actually bears between 50% and 60% of what he was paying previously.

Energy Subsidies Impacting Prices

The second axis focused on the repercussions of rising energy prices on the state's general budget and the legislative and political role in managing it. The pressure from the energy import bill and increased spending on subsidies and their impact on government spending priorities were highlighted, as the budget shifts from development projects to covering energy costs.

The role of specialized parliamentary committees in studying the repercussions of rising prices and proposing sustainable solutions was also reviewed, with emphasis on the importance of transparency in setting pricing policies.

The discussion also emphasized the importance of mitigating the negative impacts on the most vulnerable groups. It highlighted the role of taxation and legislative mechanisms in promoting the transition to renewable energy and reducing emissions.

The energy market, like any other market, is affected by multiple factors, as countries' development plans are affected by economic and geopolitical factors, such as the slowdown in economic growth in China and the impact of geopolitical events on demand and global oil and gas prices, according to Heiba.

Nafie added that there are two main factors that permanently determine the fluctuations in energy prices. The first factor is subsidies, which amounted to about 154 billion pounds in the last budget. Going on, Nafie explained that this amount cannot be described as full support unless weaknesses in production efficiency, energy distribution and intermediate processes are addressed. These improvements require a competitive market free of monopoly, while reducing current waste, such as the inefficiency of partnership contracts with foreign parties, and the lack of hedging contracts that help mitigate price fluctuations.

Challenges Facing Egypt's Sustainable Energy Strategy

In the third axis, the spotlight was on Egypt's Sustainable Energy Strategy 2035 and its role in meeting the increasing demand for energy in conjunction with population growth.

Participants discussed the feasibility of plans to increase the share of renewable energy to 40% by 2030, and the challenges associated with developing the infrastructure and enhancing the investments needed to achieve this goal. Green hydrogen projects were also focused on as a strategic step towards achieving a more diverse and sustainable energy mix, while emphasizing the importance of international partnerships and modern technologies in supporting Egypt's ability to become a regional hub for the production and export of green hydrogen.

Hafez El-Salmawy, Professor of Energy Engineering and former executive chairman of the Egyptian Electric Utility and Consumer Protection Regulatory Agency, stated that while Egypt's oil and gas resources are at an average level by international standards, these resources are insufficient to meet the country's growth rates.

El-Salmawy emphasized the significance of energy transition as part of Egypt's vision, advocating for increased reliance on electricity and renewable energy while reducing dependence on oil and gas. He added that despite decreasing oil consumption, refining capacity of 38 million tons per year will enable Egypt to import crude, refine it locally, and sell it in foreign markets.

Meanwhile, Samir Al Kareish explained that Egypt is leading the countries in the hydrogen file, but there are changes in the gas file after the launch of the low-carbon hydrogen strategy. Al-Quraishi pointed out that Germany has allocated billions of dollars for research in this sector, and Egypt has signed a cooperation protocol with them. Additionally, Al Kareish called for the need to benefit from this cooperation through exchanging expertise and building capacities to maximize mutual benefits in this field.

Energy Efficiency and Sustainability

The discussion further tackled ways to enhance the energy sector efficiency and sustainability. Fouad stated that "Egypt's energy sector holds great potential, but it requires proactive measures, clear investment incentives, and a secure, attractive environment to ensure sustainable growth." He further elaborated, emphasizing that "a strategic approach to managing foreign currency shortages, stabilizing financial policies, and ensuring consistent regulations is crucial for enhancing the Egyptian market's credibility." Additionally, Fouad stressed the need to ensure the timely settlement of obligations to foreign partners and revisit investment agreements to build trust, encourage new investments, and boost production.

Additionally, Fouad assured the importance of addressing foreign currency shortages, stabilizing financial policies, and ensuring a predictable regulatory framework to boost market credibility. He called for proactive strategies, clear investment incentives, and a secure business environment to unlock the sector's potential and drive sustainable growth.

Meanwhile, Attia said that "Egypt's problems are not technical, we have distinguished skills and cadres. We have demanded that the Ministries of Electricity and Petroleum be under one administration to avoid conflict between ministries. Our main problem lies in management and organization, not in technical aspects."

Abdelrahman Gabr, Key Account Manager at Orcan Energy Company, agreed, stating that there is great potential for energy efficiency by generating clean electricity by using less fuel in the petroleum industry process.

Meanwhile, Asaker emphasized that significant investments are required to advance exploration and renewable energy, with an active role for the private sector. However, she noted that the private sector would only participate if there is a clear future vision outlining how funds will flow in and out, currency stability, supportive policies, incentives, and the state's role in building confidence. She stressed the importance of having a well-defined vision with a specific timeline and the prompt issuance of executive regulations.

On the other hand, Heiba noted that the Egyptian government is working to enhance energy security, as it was the first to establish gas liquefaction stations and new explorations, in addition to its prominent role in the East Mediterranean Gas Forum and the demarcation of maritime borders. Heiba also added that the energy transition policy that began in 2014 aims to increase reliance on renewable energy and convert cars to run on natural gas, which in turn affects energy prices.

The roundtable discussion provided a valuable platform for experts and stakeholders to delve into the critical challenges and opportunities facing Egypt's energy sector. Key takeaways include the urgent need to address the economic impact of rising energy prices, the crucial role of legislative reforms in attracting renewable energy investments, and the importance of a comprehensive energy transition strategy.

EGYPT OIL&GAS
RESEARCH & ANALYSIS

QUARTERLY INDICATORS

FDI Net Inflows ($ billion)

Q3 2023/24	Q4 2023/24
18.1	22.35

In the fourth quarter (Q4) of the fiscal year (FY) 2023/24, net inflows from foreign direct investment (FDI) increased by approximately 23% when compared to the previous quarter. Arab countries stand as the primary sources of FDI inflows to Egypt, accounting for over 85% of the total investments received. These investments from Arab countries span various sectors, including real estate and energy projects. The European Union (EU), the United States (US), and the United Kingdom (UK) collectively contributed 11% of the overall inflows.

Investments Inflows per Destination

ARAB COUNTRIES	85%	$21.41 billion
EU	5%	$1.18 billion
US	4%	$1.07 billion
OTHER	3%	$0.82 billion
UK	2%	$0.63 billion

MONTHLY INDICATORS

Annual Inflation Headline CPI (%)

In November, Egypt's annual headline inflation experienced its first decrease since July, lowering to 25% from 26.3% in October. The monthly headline inflation fell by 0.1% in November, reaching 1.4% compared to 1.5% in the previous month. This reduction is largely due to price decreases across various categories, with vegetable prices dropping by 12.4%, meat and poultry prices by 3%, fruit prices by 0.4%, and grains and bread by 0.3%.

In a related matter, the Central Bank of Egypt's Monetary Policy Committee (MPC) has indicated in its recent meeting that inflation is anticipated to decline significantly beginning in the first quarter of 2025. This expectation is based on the cumulative effects of recent monetary policy tightening and a favorable base effect.

October 2024: 26.3
November 2024: 25

Net International Reserves ($ billion)

In November 2024, Egypt's net international reserves (NIR) reached a record high of $46.952 billion. The NIR includes foreign currencies, gold, and special drawing rights (SDRs) from the International Monetary Fund (IMF). In November, foreign currencies constituted approximately 77% of the total reserves, while gold represented 23%, and SDRs accounted for around 0.1%.

October 2024: 46.94
November 2024: 46.95

Non-Oil Private Sector PMI (Point)

Egypt Purchasing Managers' Index (PMI) edged up for the second month running in November and moved closer to the 50.0 mark. The manufacturing industry sector revealed a hint of growth, as goods orders rose modestly, driving an increase in output. This helped offset further declines across construction, wholesale & retail, and services sectors.

October 2024: 49
November 2024: 49.2

EGX HIGHLIGHTS

Performance of Listed Petroleum Companies (November 2024)

	TAQA Petroleum	EDC	AMOC	EGYPT GAS	Sidpec
Close Price	12.89 EGP	-	7.63 EGP	41.87 EGP	20.61 EGP
YTD Price Change	4.16%	0%	22.62%	4.68%	29.1%
P/E*	27.17	2.01	5.58	35.4	7.6

*Price-Earnings Raito (P/E): the ratio of a company's share price to the company's earnings per share.

Capital Market Indicators

	EGX 30	EGX 70 EWI	EGX 100 EWI
10-14 NOV	31,462	8,407	11,668
17-21 NOV	30,632	8,340	11,522
24-28 NOV	30,242	8,276	11,380
1-5 DEC	30,840	8,560	11,747
8-12 DEC	30,795	8,575	11,735

Remarkable Production Progress from Ras Budran Field

Under the Ministry of Petroleum and Mineral Resources (MoPMR) incentives, the Suez Oil Company (SUCO) has achieved distinguished progress at the Ras Badran field by increasing its oil production. This represents the significant results of the Ministry of Petroleum and Mineral Resources (MoPMR) incentives package launched in August 2024.

The steps to achieve the increase included repairing the damaged wells, drilling and processing operations without using a drill to accelerate the rise in production rates, and testing the Matla layer.

The company set ambitious plans to develop the untapped reserves in the Nubia and Matla layers, which would contribute to enhancing the company's productivity and sustainability in the long term.

Successful Production from Ras Budran Field

Production	Duration	Initial Production Plan
7,500 boe/d	3 Months of Operations	3,100 bbl
With Increase of	**Area**	**Drilling Start Date**
3,800 bbl/d	Abu Redis	September 5, 2024

Testing the Matla Layer

Well | RB-A3b   Oil Production | 1,750 bbl/d

Successful Drilling Activities in the Red Sea Region

The Red Sea witnessed significant activity by the General Petroleum Company (GPC) in its operating areas, characterized by the utilization of modern technologies, optimization of drilling rig numbers, and cost rationalization. The GPC has an ambitious plan to expand its drilling operations in the region.

Onshore Drilling Rig

Rig	Rig Operator	Area
MDC4	Modern Drilling Company	Ras Gharib

Drilled Production Development Well	Well Operator	Production Rate
Gharib-277	GPC	200 bbl/d

Put on Production
Within 2 Weeks after Drilling Completion

New Offshore Production Platform GG 83/3

First Added Wells

Number	Production	
2	~1,000 bbl/d	The third well is being drilled

EUG Launched New Bid Round

Egypt Upstream Gateway (EUG) announced that a new Block in the Gulf of Suez, in the General Petroleum Company (GPC), has officially been booked and is open for bidding.

Bid Round Highilities

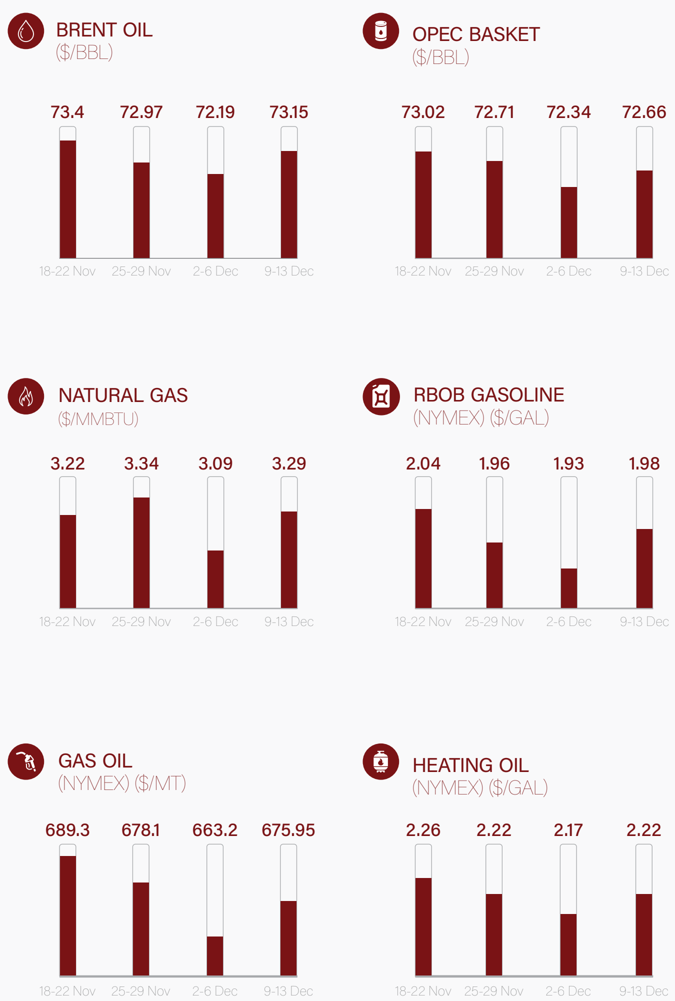
December 10, 2024	Announcement Date	Closing Date	January 9, 2025
West Gharib-G	Block	Location	Gulf of Suez

West Gharib-G Block Details

Upside Potential	Area	Past Operators
11.2 mmstb (STOIIP) in Rudies Resservoir	20 km²	Epedeco, A.E.O, Dubling & GPC

PRICING HIGHLIGHTS

Average International Prices



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