EGYPT OIL&GAS NEWSPAPER

PROUDLY THE OFFICIAL PUBLICATION

EGYPES EGYPT ENERGY SHOW

17 - 19 FEBRUARY 2025 | CAIRO, EGYPT

DRIVING ENERGY INNOVATION

Cheiron's Approach to Sustainable Oil & Gas Development

CHEIRON

An interview with **Alan Linn,**
Chief Executive Officer, Cheiron Energy

EOG Committee's Executive Board Reviews Strategic Plans for 2025 to Support the Industry

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Editor's Letter

MoUs and Agreements on the Way

A new version of Egypt Energy Show **(EGYPES)** is taking place this month. Under the sector's new leadership, the show will tackle new areas and discuss important topics. Egypt's energy sector is expected to witness a number of MoUs and agreements on sidelines of the show.

While attending EGYPES, do not forget to grab copy of the show dailies prepared by EOG team. Each show daily will give you an overview of the conferences that you did not have a chance to attend.

Inside the February issue you will find a full coverage of EOG committee excusive board latest meeting. The industry's achievements were reviewed during this important meeting. Moreover, the committee members discussed the 2025 plans and objectives. We had a good chance to interview Alan Linn, Cheiron Energy's CEO. Linn shared with us insights into the company's ambitious expansion plans, the role of strategic partnerships, and the adoption of new technologies.

Our Research and Analysis team prepared an insightful report about gas pricing in Egypt. It is analyzing market forces and regulatory framework. In our industry insights section, we conserving materials. Thy are considered as the dark horse of oil and gas.

Wish you all informative read!

Dr. Mahinaz El Baz
Content Director

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EGYPT'S LEADING OIL & GAS MONTHLY PUBLICATION

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Proudly the Official Publication

EGYPES EGYPT ENERGY SHOW

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TOP 5

ExxonMobil Strikes Natural Gas in Egypt's Mediterranean Waters

ExxonMobil Egypt (Upstream) Limited announced that it encountered gas bearing reservoirs after completing the drilling of the Nefertari 1 well in the North Marakia Block with the Valaris DS-9 drillship.

It added that it will continue to evaluate the results.

Qatar Energy is a partner in North Marakia block operated by ExxonMobil.

bp Adds 2 Wells to Production, Launches Exploration Operations at Elking Offshore Egypt

The Ministry of Petroleum and Mineral Resources (MoPMR) announced the successful drilling and completion of two additional wells in the Raven gas Field operated by bp at West Nile Delta (WND) Concession, utilizing Volaris DS12 Drill Ship.

In July 2024, Minister of Petroleum and Mineral Resources Karim Badawi visited Volaris DS12 to oversee the drilling activities. Currently, subsea hookup and commissioning activities are ongoing to tie the two wells to the existing subsea network in the Mediterranean, paving the way for production to commence. First gas is expected three months ahead of schedule in February 2025 thanks to an accelerated drilling and installation plan.

Having accomplished such an achievement, Volaris DS12 is now underway to Elking exploration area offshore Egypt in the Mediterranean to commence an exploratory drilling campaign.

The campaign targets natural gas reservoirs in the Lower Messinian Formation, aiming to reach the reservoir by the end of February 2025. Elking exploration area is strategically located near BP's WND existing infrastructure, including pipelines and production facilities, fast-tracking potential production in the event of successful discovery, contributing to the Ministry's strategy of maximizing natural gas production and operational efficiency.

Enppi, Petrojet Secure $1.24B Contract for ADNOC Gas LNG Project

ADNOC Gas plc and its subsidiaries announced the awarding of three enabling contracts worth $2.1 billion for an LNG pre-conditioning plant (LPP), compression facilities and transmission pipelines to supply feedstock to the Ruwais LNG Project.

The largest contract, valued at $1.24 billion for the LPP, was awarded to a consortium consisting of Engineering for the Petroleum and Process Industries (ENPPI) and PETROJET.

A $514 million contract for transmission pipelines was awarded to the China Petroleum Pipeline Engineering Corporation (CPPE-AD)

Petrofac Emirates LLC will develop the new compression facilities under a $335 million contract.

The LPP and compression facilities will be located within ADNOC Gas' Habshan 5 plant, part of one of the world's largest integrated gas processing complexes. The five plants of the Habshan Complex have a combined capacity to process 6.1 billion standard cubic feet of gas per day. The newly awarded transmission pipelines will connect the Habshan Complex with the Ruwais LNG facility.

ADNOC Gas is developing the Ruwais LNG project on behalf of its largest shareholder, ADNOC Group. The capital expenditure (CAPEX) for the LPP, compression facilities and transmission pipelines, does not form part of the costs previously outlined by ADNOC Gas for its intended acquisition of ADNOC's majority stake in the Ruwais LNG project once the plant becomes operational in 2028.

Egypt Boosts Oil, Gas Production to 1.4 mmboe/d

Prime Minister Mostafa Madbouly met with Minister of Petroleum and Mineral Resources Karim Badawi to discuss and review key updates on the ministry's projects and initiatives.

During the meeting, Minister Badawi highlighted the major achievements of the petroleum and mineral resources sectors over the last six months (July–December 2024), with a focus on increasing production rates.

He reported that production rates have risen to 1.4 million barrels of oil equivalent per day (mmboe/d) through the drilling of 105 new wells, comprising 95 oil wells and 10 natural gas wells. The daily added production includes 63,700 barrels of oil and condensates, along with 271 million cubic feet (mcf) of natural gas. These efforts are expected to save $1.5 billion in import costs every six months, starting in January 2025.

During his presentation, Badawi referred to the efforts made to pay the dues of various partners and stop their accumulation, in an effort to resume the work and activities of major companies operating in this field, in addition to encouraging more national investments in the petroleum sector, and offering global increases and promising investment opportunities in this vital sector.

Badwi further highlighted the ongoing efforts to advance the petroleum and mineral resources sector, including the completion of three-dimensional seismic survey programs for new areas, especially in the Western Desert and the Western Mediterranean, as well as the preparation of a group of new agreements expected to be signed during the second half of 2024/25.

Minister of Petroleum Announces Resumption of Zohr Development and Drilling Activities in 2025

Minister of Petroleum and Mineral Resources Karim Badawi announced resuming Zohr development activities as well as the start of drilling two development wells in January 2025.

Badawi also announced launching the Mineral Resources Digital Portal, as well as offering new areas for mining during 2025 to attract more investments in these blocks so as to bolster the national economy.

Badawi highlighted that the ministry's team has developed a strategy focused on building upon recent achievements while aligning with current demands. He noted that this strategy encompasses six key pillars aimed at meeting citizens' petroleum product needs at the lowest possible cost.

This is achieved by increasing production, intensifying drilling and exploration programs, exploiting the infrastructure and capacities in the refining and petrochemicals sector, and creating a qualitative shift in the mineral wealth sector to increase its contribution to the domestic product.

The strategy is based on intensive integrated work between the Ministry, government institutions and ministries, parliamentary councils, representatives and senators, and investment partners in the field of production.

A BLAST FROM **THE PAST**

In February 2016, Egypt drilled the second appraisal well of Zohr field, marking it as the biggest gas discovery offshore Egypt in the Mediterranean Sea, holding an estimated 30 trillion cubic feet (tcf) of gas resources.

Located within the 3,752 km² Shorouk Block in the Egyptian Exclusive Economic Zone (EEZ), the deepwater field is large enough to supply all of Egypt's natural gas requirements, and nearly two-thirds of its total energy needs for decades, transforming the country as a net exporter of LNG and a regional energy hub.

Phase I of the project involved the development of six wells in 2017 producing an initial output of 1 billion cubic feet per day (bcf/d). This production capacity steadily increased, ultimately reaching a peak of 2.7 bcf/d in August 2019.

Meanwhile, the Zohr field faced a production decline in 2021 and hit an all-time low of 1.9 bcf in early 2024.

Prime Minister Mostafa Madbouly announced that the Zohr gas field is expected to regain its production levels by mid-2025. He explained that the primary issue with the Zohr field was a series of delays in paying dues owed to the Italian company responsible for its management. These payment delays had led to a halt in further investment in the field.

Currently, Egypt's Ministry of Petroleum and Mineral Resources plans to drill two development wells at the Zohr gas field in 2025, as the government seeks to reverse production declines and stimulating its export sector.

The field is operated by Petrobel, a company owned by Eni and EGPC, on behalf of Petroshorouk, a group that includes Eni, its partners and EGAS.

UNDER THE Limelight

New Drilled Wells (July - December 2024)

$ 105 MILLION

Significant Production Boost from New Wells

Over the past six months, the Egyptian oil and gas sector has achieved remarkable success.

Production rates have surged to 1.4 million barrels of oil equivalent per day (boe/d), with incremental daily production of 63,700 barrels of crude oil and condensates, along with 271 million cubic feet (bcf) of natural gas. This surge is driven by the significant drilling of 95 crude oil wells and 10 natural gas wells.

These efforts are expected to save an estimated $1.5 billion in additional import costs every six months, starting January 2025.

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ACHIEVEMENTS

Petroleum Ministry Exceeds Energy Efficiency and Emission Reduction Goals

The Ministry of Petroleum and Mineral Resources (MoPMR) achieved outstanding results during the target period of Egypt's First Biennial Transparency Report (end of 2022), exceeding its targets set within the Nationally Determined Contributions (NDCs) to reduce emissions.

By implementing 23 projects, the MoPMR reduced emissions by 1.36 million tons of carbon dioxide equivalent, surpassing the target of 1.23 million tons.

This came in Egypt's First Biennial Transparency Report (1st BTR), which was submitted to the Secretariat of the United Nations (UN) Framework Convention on Climate Change before the deadline. The report submitted by the Ministry of Environment, with the active participation of the MoPMR, represented by the Energy Efficiency and Climate Department.

This achievement is the culmination of the MoPMR's efforts to support Egypt's international commitments and contributions to enhancing climate transparency, opening new horizons for attracting climate financing and developing plans to address climate challenges.

The MoPMR also succeeded in reducing energy consumption by 5.64% compared to the target of 5%, through implementing 266 projects and procedures to improve energy efficiency in various activities of the sector.

Agiba Petroleum Enters 2025 with Historic Environmental Achievement: Zero Operative Flaring

Agiba Petroleum Company and its shareholders completed a major project in a dual achievement, reaching a historic environmental milestone in the Western Desert: ZERO Operative Flaring and increasing gas production.

This milestone was achieved by installing a gas compression station with a capacity of 2.5 million standard cubic feet per day (MMSCF/D). The station delivers flared gas from the oil plant to be processed at the existing Meleiha gas plant, making this remarkable achievement a reality.

This initiative delivered dual benefits which are reducing emissions by 70,000 tons of carbon dioxide per year, as well as increasing gas production by 75 MMSCF per month.

AMOC Launches $2M Wastewater Treatment Project with Cutting-Edge Technology

At a cost of $2 million, Alexandria Mineral Oils Company (AMOC) announced that it completed and operated a new project for treating wastewater from phenol pollutant.

The project was implemented in cooperation with Nalco Water and the Environmental Pollution Abatement Program (EPAP III) by using the latest chemical technologies for treating wastewater with a capacity of 18 m3/hour.

It was funded by the European Bank for Reconstruction and Development (EBRD) and the National Bank of Egypt (NBE).

OSOCO, Mansoura Petroleum Company Produces 1.3 mboe in H1 2024/25

Offshore Shukheir oil Company (OSOCO) and Mansoura Petroleum Company succeeded in producing 1.3 million barrels of oil equivalent during the first half of 2024/25, at an average of 6,900 barrels of oil equivalent per day (boe/d).

The company's Chairman, Walid El-Aasar reviewed what was accomplished in the first half of fiscal year (FY) 2024/25, as the company succeeded in achieving about 1.3 million safe working hours for workers.

OSOCO and Mansoura Company has developed an ambitious exploration plan to add new crude oil reserves by drilling two exploration wells during the amended budget and the proposed budget.

This plan for FY 2025/26 targets the production of 8,000 barrels per day of crude oil, 15 million cubic feet per day (mcf/d) of gas, and 230 barrels per day of condensates.

ESHPETCO, Petro El Mallaha Investment Budget Estimated at $27M for 2025/26

A routine general assembly of Esh El Mallaha Petroleum Company (ESHPETCO) and Petro El Mallaha company was held for the fiscal year (FY) 2025/26 in the presence of Salah Abdel Karim, CEO of the Egyptian General Petroleum Corporation (EGPC), Ashraf Bahaa El-Din, Chairman of Ganoub El Wadi Petroleum Holding Company (Ganope), and their deputies.

ESHPETCO Chairman Khaled Abdel Salam reviewed what was accomplished in cooperation with partners Lukoil and Tharwa Company during the first half of the current FY 2024/25 budget, which resulted in achieving the production plan without increasing the cost of the barrel and maintaining the safety of operations.

The two companies' work plan for FY 2025/26 was reviewed in terms of completing the geological studies currently being worked on and planning to drill new exploratory and development wells to increase production rates. The investment budget of the two companies is estimated at $27 million, with a daily production rate of 4,300 barrels per day (bbl/d).

BORAPETCO Reports Record Performance in FY 2024/25 Production Plan

The Chairman of Borg El-Arab Petroleum Company (BORAPETCO) Smai El Shahat announced that the company achieved a boom while implementing its production plan for the current fiscal year (FY) 2024/25.

He elaborated that the company achieved the production plan by 113% of Borg El-Arab fields, 103% of Abu Sennan fields, and 100% of west Wadi El Natrun compared to the targeted plan. The chairman added that BORAPETCO produced 1.2 million barrels of oil during Q1 of FY 2024/25 reflecting the excellent performance of the company.

Additionally, El Shahat explained that Kuwait Energy company continued pumping investments to the company's various concession areas amounting to $67.7 million to drill four exploration wells at Abu Sennan, Borg El Arab and West Natrun in addition to other five developmental wells to increase the production.

El Shahat stated that the company allocated $43.8 million in the planned budget of FY 2025/26 to complete its developmental and exploratory drilling projects in parallel with focusing on improving productivity and maximizing economic returns.

PetroMalek, PetroZenima Review their Plans for FY 2025/26

In attendance of EGPC Chairman Salah Abdel Kerim, South Abu Zenima Petroleum company (PetroZenima) and Malek Petroleum Company (PetroMalek) held their general assembly, discussing the plans for the fiscal year (FY) 2025/26.

Osama Al-Baghdadi, Chairman and Managing Director, reviewed the work carried out during the previous six months, which reflects the company's keenness to maintain production rates of 1,050 barrels of oil per day (bbl/d) by completing the necessary maintenance work for all surface and subsurface equipment, and maintaining safe rates on the MOPU production unit for H2S gas through chemical treatments in cooperation with the Petroleum Research Institute.

He also showed what the company has achieved in the field of occupational safety and health and the field of operational safety of 3,500 working days without any injuries or accidents (LTI).

The two companies' business plan for the fiscal year 2025/2026 was also reviewed, in terms of drilling the appraisal well (1-NWSAZ) during the FY 2025/2026. If successful, the possibility of connecting it to the Muzhil offshore platform will be studied, with an expected production capacity of 2,000 b/d in April 2026.

As for PetroMalek, he confirmed that the company is in the process of working on a joint project with Esh El Mallaha Company (ESHPETCO) to obtain modern seismic data during the coming years to improve the overall picture of the seismic data and reduce the percentage of potential risks in these structures as well as re-evaluate the geological structures present in the PetroMalek field in a detailed and precise manner.

The exploratory well NEWEEM 1 is planned to be drilled during the next fiscal year and will depend on the results of the planned 3D seismic survey.

Copetrol 95 Octane Benzene Sales Increase by 31% in H1 2024/25

Minister of Petroleum and Mineral Resources Karim Badawi chaired the General Assembly meeting of Co-operation Petroleum Company (Copetrol) to discuss and approve the investment budget for the fiscal year (FY) 2025/26.

During the meeting, Copetrol's Chairman, Nasser Shouman, pointed out that the company's sales volume of 95 octane benzine increased by 31% and 92 octane benzine by 12% during the period July-December 2024 compared to the same period in 2023, which reflects the company's increased share in the petroleum products distribution market.

In the field of marketing engine oils, Shouman explained that Copetrol has a 16.5% market share, and that it is moving towards making a shift in the quality of oils it markets.

Shouman, reviewed the company's main activities, explaining that the total number of the company's stations for servicing and fueling cars is 1,246 stations across the country.

Moreover, Shouman stated that adding 25 new stations to the company's network of stations is underway, most of which have started operating over the past six months. Additionally, the company plans the establishment of eight new stations to enter service during FY 2025/26, which will also witness the start of the establishment of 16 other stations.

INVESTMENTS

Petroshahd Plans $31M in Investments in 2025/26

Petroshahd Company Chairman Ahmed Abdel Wahab stated that the proposed plan for the company during fiscal year (FY) 2025/26 includes pumping investments estimated at about $31 million during the year.

The plan aims to increase the company's daily production rate, which currently stands at about 10,500 barrels per day (b/d) of crude oil, and it is planned to drill 4 development wells that will contribute to enhancing production and reserves.

Abdel Wahab presented the amended budget for FY 2024/25 and the proposed budget for FY 2025/26, as well as plans to increase production rates and complete projects to inject water associated with production into dry wells for safe disposal, in accordance with the highest standards of occupational safety and health and environmental protection.

Alamein Petroleum to Allocate $25M for Drilling Operations During FY 2025/26

The Chairman of Alamein Petroleum Company Mahmoud Tolba reviewed the modified budget plan of the company for the fiscal year (FY) 2024/25 which includes drilling three developmental wells in East Abu Sennan and the recommended budget plan for FY 2025/26 amounting to $25 million.

Tolba explained the budget plan of FY 2025/26 includes drilling deep exploratory well and assessment well in Horus field in addition to another exploratory well in East Abu Sennan field.

He also presented a number of projects currently being implemented to reduce operating expenses, including the establishment of two oil production stations in the East Abu Sennan field to replace the rented facilities.

He also reviewed the company's efforts to reduce diesel consumption and its situation of exploiting the flare gas produced in the Horus field to operate a gas-powered generator to provide about 650 liters of diesel per day and reduce carbon emissions by about 635 tons annually, in addition to the ongoing technical study to conduct a field experiment to operate one of the wells using solar energy instead of the diesel-powered generator.

$2 Million Budget Increase Approved for Magapetco to Drill More Wells in FY 2024/25

An increase in investments has been approved in the budget of Magawish Petroleum Company (Magapetco) to drill more production wells during the current fiscal year (FY) 2024/25 as part of plans to increase production.

Magapetco Chairman, Mahrous Moatamad, reviewed the amended budget for FY 2024/25, in the presence of Salah Abdel Kerim, Chairman of the Egyptian General Petroleum Corporation (EGPC).

Details of the revised budget, which increased by $2 million to a total of $8.7 million, were discussed.

This increase included the costs of drilling two development wells that have been completed, and the wells are currently being evaluated and prepared for production.

An estimated budget of $6.6 million has also been approved, including an ambitious plan to drill an exploratory well and a development well.

The company aims to reach annual production rates of 365,000 barrels, with a daily average of 1, 000 barrels, while reducing the cost per barrel.

General Petroleum Company to Drill 41 New Wells in 2025 Investment Push

Minister of Petroleum and Mineral Resources, Karim Badawi, emphasized that boosting local oil and gas production is a top priority for the ministry at this critical stage. This focus aims to reduce the import bill and support the state's broader economic objectives.

Meanwhile, GPC's Chairman Mohamed Abdel Mageed explained during the meeting that GPC is targeted to drill 41 new wells to explore and produce oil and gas in the Eastern and Western Deserts and the Gulf of Suez, and to repair and re-complete 39 wells in the company's various fields.

Abdel Mageed highlighted the successes achieved by the company during the first half of FY 2024/25 in the field of increasing production, as 17 new production wells were drilled, 40 other wells were repaired and re-completed, and the new GG83/3 exploration wells in the North Amer field in the Gulf of Suez were placed on the production map.

Preparations are underway to drill a third well, in addition to repairing two wells on the GG1 production platform, to raise total production to 3,300 barrels, an increase of approximately 1,700 barrels over the production rate last in July 2024.

This is in addition to resuming production from the FF offshore platform in the Gulf of Suez by targeting an unconventional reservoir and producing from it for the first time, and intensifying drilling operations in the aging Ghareb field. It succeeded in raising its production rates to nearly 3,000 barrels per day (bbl/d), and increasing gas production from the aging SWS field in the Western Desert to 17 million cubic feet per day (mcf/d) and increasing its reserves.

Abdel Mageed stated that a number of bidding areas offered by the company are being evaluated, with a specific timetable to quickly put them on the production map.

EVENTS

Badawi Joins Global Energy Leaders at IKTVA Forum in Dammam

Minister of Petroleum and Mineral Resources Karim Badawi attended the opening of the IKTVA Forum and Exhibition in Dammam, Saudi Arabia.

The forum was held under the theme "Ecosystem of Opportunities" confidently highlights the ever-growing potential and tremendous impact of a competitive, sustainable local supply chain for Saudi Arabia and beyond.

The conference was organized by Aramco, under the patronage and presence of Prince Saud bin Nayef bin Abdulaziz, Governor of the Eastern Province, and Prince Abdulaziz bin Salman Al-Saud, Saudi Minister of Energy, and a number of KSA Ministers and CEOs of IOC's, investors and suppliers.

Fouad Stresses Proactive Strategies for Sustainable Growth in Egypt's Energy Sector

At a roundtable discussion titled "The Impact of Energy Prices on the Egyptian Economy," hosted by the ElAdl Party on December 28th, Mohamed Fouad, CEO of Egypt Oil & Gas and Secretary General of the Egyptian Gas Association (EGA), played a central role in outlining critical measures to strengthen Egypt's energy sector and enhance economic resilience. For instance, 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.

The event brought together a distinguished group of experts and specialists in energy, economics, and legislation.

The roundtable centered on three main axes: the repercussions of rising energy prices on sectors such as industry, transportation, and housing, and their contribution to inflation rates; the legislative and political role in managing energy resources, including the need for updated legislation to attract investments in renewable energy; and Egypt's energy transition and efficiency strategies, with a focus on ambitious plans for green hydrogen, renewable energy, and the 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.

COMPANY OF The Month

CHEIRON

Cheiron was founded in the late 1980s in Egypt, formerly known as PICO International Petroleum and later rebranded as the PICO Cheiron Group. Cheiron developed into Egypt's largest independent exploration and production (E&P) company. The company is dedicated to expanding its reserve base through near-field exploration, maximizing value from producing assets, and unlocking the potential from declining fields. Its assets are located in Egypt, Mexico, and Romania.

Cheiron's Activities in Egypt

Cheiron is Egypt's leading E&P company, operating across multiple concessions in the Nile Delta, Mediterranean Sea, Western Desert, and Gulf of Suez. Its diverse portfolio includes key assets such as the South East Horus and West El Fayoum concessions in the Western Desert, as well as North Zaafarana and Amal Offshore in the Gulf of Suez. Managing over 15 concessions nationwide, the company demonstrates its commitment to maximizing Egypt's hydrocarbon potential through efficient operations and a strong focus on sustainability.

CHEIRON RECENT DISCOVERIES IN EGYPT

Wells	Concession	Production	Discovered Date
GNN-11	Geisum and Tawila West	2500 bbl/d	August 2023
ED-2X	East Damanhur	15 mmscf/d	January 2023

Source: Cheiron Website

Kuwait Oil Company Makes Major Hydrocarbon Discovery at Al-Jlaiaa Offshore Field

Kuwait Oil Company (KOC) has made a hydrocarbon discovery at the Al-Jlaiaa offshore field within Kuwaiti waters, estimated to hold 800 million barrels (mmbbls) of medium-density oil and as estimated 600 billion standard cubic feet(bcf) of associated gas, equivalent to 950 mmbbls of oil equivalent.

KOC said that tests on the exploration well (Al-Jlaiaa 2) yielded promising results.

The Al-Jlaiaa field, spanning over 74 square kilometers, is the second marine field discovered under the current exploration plan, following the discovery of the Al-Nokhatha field in July 2024.

مؤسسة البترول الكويتية
Kuwait Petroleum Corporation

Saudi Arabia's KBR-AMCDE Secures Brownfield Project at Ras Tanura Refinery

KBR-AMCDE, based in Saudi Arabia, has been awarded the detailed design scope for a brownfield project in the Ras Tanura Refinery, Saudi Arabia's oldest refinery established in 1945.

The project, awarded by Sinopec Nanjing, involves replacing the main compressor at Plant 25 in the refinery.

KBR-AMCDE stated that Amiral PKG 5 AC Project is now nearing 90% completion, stands as a testament to the successful synergy and shared goals achieved by both organizations,

KBR-AMCDE company is specialized in front-end engineering design (FEED), detailed design, material procurement, and project management services for the hydrocarbon sector in Saudi Arabia.

ADNOC Distribution, Emerge Launch Second Solarization Phase for Abu Dhabi Stations

ADNOC Distribution announced the launch of the second phase of its service station solarization program in cooperation with Emerge, a joint venture between Masdar and the EDF Group. This initiative aims to enhance sustainability and operational efficiency by reducing greenhouse gas emissions and reliance on non-renewable energy.

Under the program, Emerge will finance, design, install, and maintain solar photovoltaic (PV) panels at service stations across ADNOC Distribution's UAE network.

In the first phase, Emerge installed solar panels at 28 ADNOC Distribution service stations in Dubai, generating over 6,300 MWh of electricity and reducing CO_2 emissions by more than 2,900 tons.

أدنوك
ADNOC

During Phase 2, solar panels will be installed at more than 100 service stations across Abu Dhabi, expected to generate nearly 30,000 MWh of renewable energy annually, equivalent to powering nearly one billion smartphones and avoiding over 13,000 tons of carbon emissions. This reduction is equivalent to the carbon absorbed by nearly 250,000 tree seedlings growing for 10 years.

bp Achieves First Gas Flow at Greater Tortue Ahmeyim LNG Project

bp has started gas flow from wells at the Greater Tortue Ahmeyim (GTA) Phase 1 liquefied natural gas (LNG) project to its floating production storage and offloading (FPSO) vessel for the next stage of commissioning.

Located offshore Mauritania and Senegal, the GTA project is one of Africa's deepest offshore developments, with gas resources situated in water depths of up to 2,850 meters. Upon full commissioning, GTA Phase 1 is anticipated to produce approximately 2.3 million tons per year (mtpa) of LNG.

bp

The gas from GTA Phase 1 is being transported to the GTA FPSO, approximately 40 kilometers offshore, where water, condensate, and impurities are removed. Subsequently, the gas will be transferred via pipeline to a floating liquefied natural gas (FLNG) vessel located 10 kilometers offshore. It will be cryogenically cooled, liquefied and stored before being transferred to LNG carriers for export. Some of the gas will also be allocated to meet the growing energy demand in Mauritania and Senegal.

Equinor Secures 27 New Production Licenses on Norwegian Continental Shelf

Equinor has secured 27 new production licenses in this years' Awards in Predefined Areas (APA) by Norway's Ministry of Energy, including 20 licenses in the North Sea, six in the Norwegian Sea, and one in the Barents Sea.

Notably, the company will operate seven of these licenses and be a partner in the remaining 20.

As an operator of 35 offshore platforms, Equinor aims to swiftly develop discoveries in areas with existing infrastructure at lower costs and with lower greenhouse gas emissions from production and transport.

equinor

Regarding discoveries that require new development solutions, Equinor will prioritize solutions that yield low emissions.

Cheniere Produces First LNG at Corpus Christi Stage 3 Project

Cheniere Energy has produced the first liquefied natural gas (LNG) from its Corpus Christi Stage 3 Liquefaction Project (CCL Stage 3) in Texas.

With CCL stage 3 project, Cheniere has become the second new US export plant this year to boost supplies of super-chilled gas.

Train 1, with a production capacity of 1.5 mtpa, is in the commissioning phase, with the completion of the processing unit expected by March 30.

CHENIERE

Notably, the new plant comprises seven midscale trains. On November 30, Cheniere achieved 75.9% completion of Corpus Christi Stage 3 expansion project.

Eni Starts Production of Baleine Phase 2 Offshore Côte d'Ivoire

Eni has kicked off the Baleine Phase 2 project offshore the Côte d'Ivoire with the goal of achieving a production capacity of 60,000 barrels per day (bbl/d) of oil and 70 million cubic feet of associated gas (equivalent to 2 million cubic meters).

According to Eni's statement, oil produced will be ready for export as the the Floating Production, Storage and Offloading Unit (FPSO) Petrojarl Kong alongside the Floating Storage and Offloading Unit (FSO) Yamoussoukro will be deployed at Phase 2. Meanwhile 100% of the gas processed gas will be transported through the pipeline built during the project's phase 1 for the local energy demand.

Notably, Phase 1 started in August 2023 and in parallel, activities for Phase 2 had been carried out and completed in full safety. With the start-up of Baleine's Phase 2 and the development of Phase 3, currently under study, total production is set to reach 150,000 bbl/d of oil and 200 million cubic feet of associated gas.

Petrofac Secures New Services Contract for Habshan Project in UAE

Petrofac has secured a new Engineering, Procurement and Construction (EPC) contract worth $330 million for the Habshan Complex, one of the world's largest gas processing plants in Abu Dhabi.

Awarded by ADNOC Gas, the contract includes the EPC of two gas compressor trains, associated utilities and power systems. It is planned to for completion in 2028.

The project will support ADNOC Gas to further increase output from the Complex in support of plans to supply pre-conditioned gas to the Ruwais LNG project plant, Petrofac said .

Petronas Reaches FID for Hidayah Field, Boosting Energy Supply in Indonesia

Petronas has reached a Final Investment Decision (FID) through its subsidiary, PC North Madura II Ltd. for the development of the Hidayah field located in the North Madura II Contract Area, East Java, Indonesia.

The development plant includes the drilling of oil production wells, supported by unmanned integrated wellhead and central processing platform. It also includes a Floating Storage and Offloading (FSO) unit

Petronas currently operates the Ketapang, North Madura II, and North Ketapang Production Sharing Contracts (PSCs) offshore East Java. It also operates the Bobara PSC, offshore West Papua.

Besides, the company is a joint venture partner in five PSCs spanning onshore and offshore Sumatra, the Natuna Sea, East Java, as well as East Indonesia.

Shell-CNOOC JV to Expand Petrochemical Operations in South China

CSPC, a joint venture (JV) between CNOOC Petrochemical Investment Ltd. and Shell Nanhai B.V. has reached a final investment decision for expanding its petrochemical complex in Daya Bay, Huizhou, South China with completion set for 2028.

The expansion will include a third ethylene cracker with a planned capacity of 1.6 million tons per year (mtpa) of ethylene, a key building block to make plastics, and associated downstream derivatives units producing chemicals including linear alpha olefins.

The CNOOC and Shell Petrochemicals Company Limited JV will also build a facility to produce 320,000 tpa of speciality chemicals such as polycarbonates, which are used to make impact-resistant plastics, and carbonate solvents, a component of lithium-ion batteries.

Currently, the site produces 2.2 million tons a year of ethylene and 6 million tons of chemical products

Sinopec Shanghai Petrochemical to Boost Operations with $2.91B Investments

Sinopec Shanghai Petrochemical Company has announced plans to invest 21.31 billion yuan ($2.91 billion) to upgrade its operations aimed at maintaining the company's crude oil processing capacity and implement other operational improvements.

As part of the project, the company will shut down 18 existing oil refining units and install new ones. These new units are expected to have an annual ethylene refining capacity of 1.20 million tons.

The company anticipates completing the main construction phase of the project within three years, pending shareholder approval.

The project will improve the variety and production capacity of its new material products and increase the production of raw materials, said Sinopec Shanghai Petrochemical.

SLB Achieves $36.29B in Revenues in 2024, Boosted by Upstream Operations, Digital Sales

SLB has released its results of the year 2024, recording 10% year on year (YoY) increase in revenues amounting to $36.29 billion.

This was driven by the company's acquisition of Aker Solutions in the fourth quarter (Q4) of 2023 alongside upstream operations in Europe, North Africa, and the Middle East during 2024.

The company's Adjusted EBITDA for 2024 was $9.07 billion, marking a 12% YoY increase from the $8.107 billion reported in 2023

SLB said that the acquired business generated revenue of $1.93 billion during the full year of 2024 and $484 million during the fourth quarter of 2023.

In the upstream, SLB achieved revenues of $3.38 billion in the Middle East & Asia, reflecting a 2% sequential increase due to strong activity in the UAE, higher drilling in Egypt, and increased stimulation, intervention, and evaluation activity in Qatar.

Similarly, in Europe & Africa, revenues grew by 2% sequentially to $2.47 billion, bolstered by the acquired Aker subsea business.

This performance enabled SLB to generate $3.99 billion in free cash flow, enabling the company to return $3.27 billion to shareholders and reduce net debt by $571 million.

Notably, the company's digital & Integration revenue increased 10% YoY, driven by 20% growth in digital, which reached $2.44 billion for the year.

In the fourth quarter, Egypt's Khalda Petroleum Company awarded SLB a multiyear digital contract for Petrel subsurface software technology and a long-term contract for seismic imaging and processing over the West Kalabsha and Shushan concessions.

This contract includes a full integrity processing scope from deblending to full-waveform inversion (FWI), which will help Khalda Petroleum Company better understand subsurface features, identify potential hydrocarbon zones, and make informed decisions about exploration, drilling, and production.

OMV Anticipates $215M Boost in Q4 Earnings from Gazprom Arbitration

Austrian oil and gas company OMV has forecasted positive results on its fourth quarter of 2024, expecting about €210 million ($215.4 million) of earnings driven by its German gas supply contract with Gazprom.

The company focuses on chemicals division as it transitions away from fossil fuels, according to Reuters. It produces chemicals used in gas and water pipes, car parts, medical syringes, and other products.

In November, OMV received an award of more than €230 million from the International Chamber of Commerce in connection with irregular German gas supplies from Gazprom Export.

Meanwhile, OMV's fuels & Feedstock business was hit by a significantly lower marketing result and higher fixed costs in the quarter, leading to a low double-digit million euro impact on the unit's clean operating result.

OMV reported mixed average energy prices in the fourth quarter, with a 7.4% decline in the average realized crude oil price to $72.6 per barrel, while the price of natural gas rose 22.9% to €30.6 per MWh.

DRIVING ENERGY INNOVATION:

CHEIRON'S APPROACH TO SUSTAINABLE OIL & GAS DEVELOPMENT

AN INTERVIEW WITH ALAN LINN, CHIEF EXECUTIVE OFFICER, CHEIRON ENERGY

As Egypt continues to solidify its position as a regional energy hub, Cheiron Energy stands at the forefront of innovation and strategic growth in the country's oil and gas sector. With a strong focus on both greenfield and brownfield developments, the company is leveraging cutting-edge technology and sustainable practices to maximize production efficiency, revitalize mature fields, and expand its operational footprint.

In this exclusive interview, Alan Linn, CEO of Cheiron Energy, shares insights into the company's ambitious expansion plans, the role of strategic partnerships, and the adoption of advanced technologies such as seismic imaging and hydraulic drilling. He also discusses how Cheiron is aligning its operations with Egypt's energy transition goals, incorporating sustainability initiatives, and navigating the evolving investment landscape.

Cheiron Energy has outlined ambitious expansion plans in Egypt. What factors make Egypt an attractive destination for these investments, and how do you see the company's presence evolving in the region over the next five years?

We focus on green field and brown field developments with near field exploration potential, where we can add value by using technology and a cost-effective operational approach to improve field EUR. By investing in modern seismic we believe that our Gulf of Suez, Western Desert and Mediterranean assets will yield significant infill drilling and additional exploration potential. Making use of our existing infrastructure helps to ensure we maximise returns from our mature fields. Why look all over the world when there is considerable potential in our own back yard!

With the recently signed agreement for the Geisum and Tawila West region, what are the specific challenges and opportunities you foresee in boosting production and exploration activities in this area?

We have identified considerable near field potential in our operational area, which we are keen to explore and develop. The area is environmentally important, so it is essential our work programmes are designed to minimize the impact on the environment and biodiversity. Our work to date in the area has been carefully managed, and we have developed an extensive biodiversity database to inform and support all work in the area. Using modern seismic technology (OBN-3D) to improve the quality of data in the area, combined with careful environmental management will underpin exploration and development success.

What role do partnerships, like the one with EGPC and KUFPEC, play in driving Cheiron Energy's strategic goals in Egypt?

Partnerships underpin everything we do in Egypt. In my experience working with partners ensures that a variety of views are tabled during the development of plans and budgets. The overall result is usually much better when a consensus is achieved.

> **We** focus on green field and brown field developments with near field exploration potential, where we can add value by using technology and a cost-effective operational approach to improve field EUR.

You've mentioned plans to introduce advanced hydraulic drilling rigs for shale gas operations in Egypt. Could you elaborate on how this innovation will enhance efficiency and environmental protection in your operations?

I first worked with Hydraulic Drilling rigs in Venezuela, and their introduction changed our drilling paradigm in Venezuela. They are more reliable, very low NPT, they move quickly and most of all they are technically advanced, requiring minimal manual intervention during the drilling processes. This makes them safer, faster and much more energy efficient. They also have a much smaller environmental footprint which means site preparation is cheaper and environmental impact reduced. The technology is fully established, improving all the time, and is deployed worldwide. They are particularly efficient within desert environments.

> **Partnerships** underpin everything we do in Egypt. In my experience working with partners ensures that a variety of views are tabled during the development of plans and budgets. The overall result is usually much better when a consensus is achieved.

How does Cheiron leverage advanced technologies to revitalize declining fields, and can you share specific examples of how these techniques have been successful in Egypt?

In lots of ways, we have just deployed nanotechnology within our Zaafarana field to improve productivity and generate incremental oil. We plan to test deep oil and gas potential within our Bapetco fields, which will involve the careful introduction of new technology. I already mentioned OBN 3D seismic and hydraulic drilling rigs.

What are your thoughts on the new incentives introduced by Egypt's government to attract foreign investment in the energy sector, and how do they align with Cheiron Energy's strategy?

Cheiron produces ~100KBOEPD, and is a strategic partnership with the government. As an Egyptian company, we are fully committed to invest in incremental oil and gas to boost domestic production, and the regular payment process and incremental production incentives, recently introduced by the Minister, are essential in returning the sector to good health and boosting domestic production.

With Egypt's growing emphasis on sustainable energy practices, how is Cheiron incorporating sustainability and environmental stewardship into its operations and future projects?

We have very active energy transition programmes within each of our joint ventures, focusing upon flaring reduction; minimizing methane emissions; reducing diesel consumption and deploying solar to power our fields. We recently introduced solar to drive rod pumps in the Western desert. This is proving very successful and something we are keen to build upon.

What are your insights on the current state and future prospects of Egypt's energy sector?

I think there are two energy sectors in Egypt. The one which catches the majority of headlines is the exploration for deep offshore gas in the Mediterranean, which is attracting the major IOCs, and could help secure Egypt's energy future. Then, equally importantly, is the work being done today to maximise recovery from Egypt's mature fields, by deploying marginal field methodologies to extract full value from these existing resources and exploring with new technologies to discover resources previously not visible on older seismic. Our business is keenly focused upon the latter, which provides oil and gas to support today's Egyptian economy.

What are Cheiron Energy's key short-term priorities in Egypt for 2025, and how do they align with your long-term vision for the region?

Our focus is primarily reinvesting revenues into our business to generate incremental production from existing fields, in parallel we work to identify near field and deeper resource potential to extend field lives and generate additional production. We aim to do this safely and efficiently, so a lot of work goes into managing the safety and process integrity systems within our mature assets, combined with investment to reduce emissions. In our vision we will extend field lives past existing concession end dates and produce oil and gas from our fields for many years to come.

Cheiron Energy has consistently participated in EGYPES. What are your main objectives for this year's event, and how do you plan to showcase the company's achievements and future strategies?

As an Egyptian company we consider EGYPES to be the most important industry event in the year. We have seven joint ventures in Egypt, in the Western Desert, Gulf of Suez and Mediterranean. We have considerable operational experience, and we believe it is important to showcase what local operators can achieve within Egypt. We are always looking for partners to help us expand and manage risk, and EGYPES is an ideal venue for us to support our industry and the government, helping make Egypt and attractive investment destination.

EOG COMMITTEE'S EXECUTIVE BOARD REVIEWS STRATEGIC PLANS FOR 2025 TO SUPPORT THE INDUSTRY

In a bid to explore potential opportunities in the oil and gas sector, Egypt Oil & Gas (EOG) Committee's Executive Board gathered on February 4 to set strategic plans for 2025.

The meeting, held under the chairmanship of Greg McDaniel, VP of Apache Egypt Assets and Country Manager and attended by 25 leaders of the EOG Committee, included five key presentations about the committee's various task forces, including Brownfields, Digitalization, Sustainable Development, Health, Safety, and Environment (HSE), and Women in Energy.

CEO of Egypt Oil & Gas and Committee Co-Chairman, Mohamed Fouad highlighted the committee's role since its establishment in 2012, in facilitating communication between the government and investors for better development of the oil and gas industry. "As we prioritize today's opportunities and challenges, the Egypt Oil & Gas Committee plays an important role in supporting the government in building a sustainable future for our industry," Fouad said during his opening speech.

Task Force Highlights

During the meeting, Osama El Shenoufy, Sales Director of Weatherford North Africa, reviewed the committee's efforts and initiatives made for brownfield projects in Egypt, the past challenges, and the steps being taken to address them.

He also reviewed the field visits conducted in cooperation with the Ministry of Petroleum and Mineral Resources (MoPMR) to understand challenges on the ground and develop an action plan based on these insights while capitalizing on the EOG's previous White Paper on brownfields presented at the EOG Convention last November.

"The objective is to capitalize on previous effort and have a way forward for identifying the strategic solutions. Also, it is important to capitalize on the Center of Excellence, where we are capturing our initiatives, and this is coordinated with the EGPC. Because we need to have the Center of Excellence in order to share our knowledge and experience," said El Shenoufy.

For the Brownfield Task Force, the focus in 2025 will be on building the EOG White Paper's findings and updating it. Additionally, a knowledge-sharing platform will be created to document and share field experiences and challenges, he noted.

In respect of Digitalization in the sector, Osama Salem, Market Leader of AVEVA Egypt and North Africa, discussed the committee's efforts for operation and production efficiency in 2024. He reviewed achievements of Agile Process Stimulation projects including a 3-5% production increase and a 1-2% cost reduction in a three-month project using process stimulation software.

"In the oil and gas sector, we divided five pillars in digital transformation. The first pillar is about the ERP systems in general. The second pillar is about infrastructure

and cyber security. The third one is command centers and SCADA. The fourth one is artificial intelligence, predictive maintenance, and whatever we can use algorithm to predict and to do the data analysis. The last one is related to brownfields, field development, and whatever data we will need to present KPI, or that will be input to software," said Salem.

He noted that the Digitalization Task Force plans this year will include the mining sector in addition to optimizing digitalization in the value chain across oil and gas, downstream, midstream, and upstream sectors. Besides, the Digitalization Task Force will hold a digital transformation Workshop in the third quarter and a strategic round table with the MOPMR and C-level Executives in the fourth as he noted.

Meanwhile, Ahmed El-Gabry, Social Performance Manager of Shell Egypt, highlighted the committee's objectives that are focused on four main aspects: education, awareness, environmental campaigns, and health.

He affirmed the sector's ability to excel in the good life through commitment to some of the Sustainable Development Goals emphasizing the need to raise the bar in the oil and gas sector.

He also reviewed some successful CSR national campaigns for the oil and gas sector such as blood donation campaign and holding HSE lectures for engineering students.

"Two task forces joined together, the HSE and the CSR. We were working together as a team to develop the faculty of engineering students and give them HSE lectures. It was surprising to find that HSE concept was not covered in their curriculum. We gathered comprehensive HSE materials and provided them with both theoretical knowledge and practical soft skills. This initiative was particularly impactful as it coincided with maintenance work at the university, allowing us to offer a hands-on session on scaffolding safety," said El Gabry highlighting that it was one of their most successful campaigns and Ain Shams University had requested to incorporate it as a permanent part of their fifth-year curriculum for all engineering graduates.

After the SD Task Force presentation, Khaled Abu Bakr, the Chairman and Co-founder of TAQA Arabia and Chairman of Egyptian Gas Association sought with El Gabry some approaches to implement in technical schools to bring high results and impact for education in Egypt.

"We can connect the Committee with all different schools. Then, we as a Committee choose where we can bring value added or maybe select one topic like the HSE that we have in the oil and gas sector," Abu Bakr told El Gabry.

For 2025 plans, the SD Task Force aims to implement a renewable energy project in a major hospital to eliminate power cut risks in the first quarter and second quarter and plan a health campaign in the second quarter. In the third and fourth quarters, the focus will shift to youth capacity building, supporting women empowerment, and small-scale agriculture projects. The fourth quarter will also see efforts on water conservation and access to clean water.

As part of the Health, Safety, and Environment (HSE) Task Force, Abdelaziz Fadel, QHSE Manager of Halliburton Egypt and Libya, reviewed the Task Force's efforts to understand and share best practices.

"The plan is to have the enablers in order to start our vision. Once we have a focal point from the Ministry of Petroleum as well as a HSE strategy, vision, mission, and objectives, we can build our own as well," he said, referring to the many steps taken to enhance cooperation between the ministry and the different companies working in this sector to start implementing the HSE strategy.

Besides identifying a HSE strategy from the Ministry, the HSE Committee Task Force is planning a special campaign during the month of Ramadan. It is a safety guide published in collaboration with the MOPMR that has been running for the past five years and aims to ensure the safety of workers particularly in the fields during Ramadan.

Eleanor Rowley, Managing Director of Capricorn Energy Egypt, reviewed workshops and sessions held by the EOG Committee for empowering women and overcoming career challenges in the energy industry, emphasizing the committee's goal to help women achieve their full potential.

"Our mission is that we want to see women in our energy industry always achieve their full potential and to create a vibrant network that inspires and supports women, from fresh graduates to senior management, on their career journeys in energy," said Rowley.

"When I returned to Egypt in 2021, I was pleased to see that we have many, many women in the industry in Egypt at all levels—both on the government side, the IOCs side, technical and administrative roles, young through to senior positions," she added.

The Women in Energy Task Force will hold an event called "She in Energy" in March. The Task Force will also work on developing resources and tips for other groups, including young leaders, technical disciplines, and fresh graduates.

Enhancing Visibility and Communication

Besides the presentations, the Committee leaders discussed some key points to focus on in 2025. They emphasized the importance of enhancing the committee's visibility to communicate more effectively with local communities and the government.

"I think we need to be more visible. The original objective of the EOG Committee, since I joined some years ago, is to make sure our contributions to the local community and the ministry are clear. We need to make sure that we all speak with one voice, and we can speak about the achievements of different task forces," Sameh Sabry, Senior Vice President & MD - Middle East & North Africa Harbour Energy.

Egypt Country Manager at VAALCO Energy, Iman Hill agreed and suggested that to ensure real delivery, each Task Force promote one or two projects that have measurable KPIs and focus on achieving them in 2025.

"In terms of real delivery, there are a lot of good programs in all the task forces, but it might be an idea to think about each task force promoting one or two projects that has measurable KPIs in 2025 and the others are still in the funnel, but it gives that much focus," said Hill.

Gas Pricing in Egypt

Analyzing Market Forces and Regulatory Frameworks

By Mariam Ahmed & Mahmoud Yasser

The Egyptian natural gas market serves as a fundamental component of the country's energy sector, experiencing ongoing development aimed at becoming a cohesive and effective model that fosters economic growth and supports sustainable development efforts.

This market holds significant potential due to its abundant natural gas reserves and its advanced infrastructure, which encompasses the national natural gas network as well as production, transportation, and distribution facilities.

As one of the leading natural gas producers in Africa, Egypt's pricing strategies not only influence its domestic economy but also have implications for regional energy markets.

The recent discoveries of major gas reserves in the Mediterranean, combined with the government's push for energy reform, have set the stage for a comprehensive reevaluation of gas pricing mechanisms.

This report will examine the organizational structure of the Egyptian natural gas market, current laws and regulations governing the natural gas market in Egypt, how the price adjustments are taking place, and the development of prices. Moreover, it assesses the effect of global natural gas prices on local exports and imports.

Local Natural Gas Market Dynamics

Market Highlights

Production Level*

*Announced in July 2024

5.7 bcf/d

Local Annual Consumption in FY 2023/24*

*Announced in October 2024

2.2 tcf

Laws & Regulations

The Egyptian natural gas market is primarily a regulated market, where the gas pricing equations are nationally set. The regulatory framework governing natural gas in Egypt is predominantly shaped by the Gas Market Law No. 196 of 2017, along with its respective amendments and ministerial directives. The law serves as the foundation of the legal system, outlining the engagement terms, rights, and obligations of all stakeholders involved in the natural gas sector.

Gas Market Activities Regulation Law

In August 2017, the Egyptian state issued law number 196 for the year 2017 as the milestone of liberalizing the downstream and midstream segments of the gas market in Egypt. The new gas law was issued to start a new stage of developing the gas market by allowing the private sector to sell gas in the domestic market and encouraging new investment opportunities in the activities of gas shipping, transmission, distribution, storage, supply, marketing, trading, and liquified natural gas (LNG) pursuits.

The law offered many opportunities for the private sector; the most important one is allowing third-party access on a nondiscriminatory basis to the gas facilities. It mentioned in an article the foundation of the Gas Regulatory Authority (GasReg). Another article stated that GasReg shall exercise all powers necessary to achieve its objectives, including, without limitation, setting development and business plans, work programs, and management rules and techniques that will enable GasReg to perform its functions. The executive regulations of the law were issued in February 2018.

GasReg Role in the Market

GasReg monitors the functioning of the gas market, encouraging new investments, regulating the gas market activities, introducing competition amongst potential market players by allowing Third Party Access to gas networks and availed facilities under a fair and non-discriminatory basis, along with increasing the quality of services provided and protecting the consumers' rights. GasReg exercises all powers needed to achieve those objectives, acting independently in a fair, transparent, neutral, and non-discriminatory manner.

The main roles of GasReg

GASREG
Gas Regulatory Authority
جهاز تنظيم أنشطة سوق الغاز

- Monitoring the performance of all Gas market players
- Granting Licenses
- Setting the methodologies for the calculation of tariffs against the access of gas networks and facilities
- Approving codes for using gas networks and facilities
- Handling of complaints that may arise between the market players

Periodical Prices Adjustments

The natural gas pricing formulas vary based on the prevailing economic conditions. The government conducts regular reviews of gas prices for different industrial sectors, ensuring alignment with the economic, environmental, political, and social factors present in the local market, as stipulated by the regulations governing gas market activities. It is required that these prices are examined every six months, taking into account global pricing trends and shifts in economic and social contexts, overseen by the appropriate ministerial committee, according to GasReg.

Gas Prices Updates in Egypt

The evolution of gas prices in Egypt has been marked by a series of strategic decisions aimed at managing the country's energy resources more efficiently. These decisions impact various sectors, including the fertilizer, iron and steel, cement, and electricity generation industries, as well as households and transportation. The changes in gas prices are a reflection of global economic trends, domestic energy policies, and efforts to balance supply and demand within Egypt's energy market.

Current Prices

Industry | Currency/MMBTU

Cement	Electricity Generation	Iron & Steel	Nitrogenous Fertilizers	Non-nitrogenous Fertilizers	Other activities	Brick kilns
$12	$4	$5.75	$4.5 As a minimum	$5.75	$4.75	EGP 170

Household & Commercial Consumption (EGP/m³)

1st Tier	2nd Tier	3rd Tier
3	4	5

Natural Gas for Vehicles: 7 EGP/m³

Municipal Bakeries: 14.1 piasters/m

Gas Cylinders:
150 EGP for 12.5 kg
200 EGP for 25 kg

Fertilizer & Chemical Industries

In 2022, a new formula was issued for calculating the price of natural gas supplied to nitrogenous fertilizer plants. According to this formula, the price is determined based on the average local and export prices of urea, with a minimum price set at $4.5 per million British thermal units (BTUs). For non-nitrogenous fertilizer plants, the price was set at $5.75 per million BTUs.

Electricity Generation Gas Supplies

1. March 2023: A new decision was issued to increase the price of natural gas supplied for electricity generation to companies affiliated with the Ministry of Electricity and Renewable Energy (MoEE) at $3 per million BTUs.

2. December 2024: A new decision raised the price of natural gas supplied for electricity generation by about 33% to $4 per million BTUs for companies affiliated with the MoEE and other companies.

Another decision modifies the payment method for natural gas consumed by projects in free zones and economic zones. Effective December 1, the payment for gas used in these activities will be conducted in United States dollars. Otherwise, the value of natural gas will be calculated in the equivalent of Egyptian pounds based on the average exchange rate of the dollar as officially announced by the Central Bank of Egypt (CBE) during the month preceding the consumption period.

Brick Kilns

September 2024: A new decision announced an increase in the price of natural gas supplied to brick factories by about 55% to 170 EGP per million BTUs, up from 110 EGP. The price of liquefied gas was also raised to 12,000 EGP per ton. As a result, red brick factories increased their product prices by approximately 25%.

Households & Commercial Activities Equivalent to Household Use

September 2024: The government announced an increase in natural gas prices for households and commercial activities. The consumption brackets were adjusted as follows:

- First bracket (0 to 30 cm): The price increased by 15% from 2.6 EGP to 3 EGP per cm.
- Second bracket (30 to 60 cm): The price increased by 18% from 3.35 EGP to 4 EGP per cm.
- Third bracket (more than 60 cm): The price increased by 25% from 4 EGP to 5 EGP per cm.

These increases aim to reduce the gap between selling prices and production costs.

Gas Cylinders

1. March 2024: The Official Gazette published a decision setting the selling price of liquefied butane gas (LPG) at 100 EGP for a 12.5 kg cylinder delivered to distribution warehouses for consumers, and 150 EGP for a 25 kg cylinder.

2. September 2024: The Official Gazette published a decision, setting the selling price of a 12.5 kg cylinder increased by 50%, and the price of a 25 kg cylinder increased by about 33%.

CNG

The Egyptian state has raised the prices of compressed natural gas (CNG) used as fuel for vehicles by 87% between 2023 and 2024.

1. March 2023: The price of natural gas used as fuel for vehicles was raised from 3.75 EGP to 4.5 EGP per cm. This decision was part of a series of increases approved by the Automatic Pricing Committee for Petroleum Products in Egypt.

2. November 2023: A new decision was set to increase the price of natural gas for vehicles from 4.5 EGP to 5.5 EGP per cm.

3. March 2024: The committee announced an increase in the price of natural gas for vehicles by approximately 20%, raising it to 6.50 EGP per cm, up from 5.5 EGP.

4. October 2024: The price of natural gas for vehicles was increased to 7.00 EGP per cm, a 7.7% increase from the previous price of 6.5 EGP.

Impact of Global High LNG Prices on Egypt's LNG Market

Russia-Ukraine War & Egypt's LNG Export Boom

The Russia-Ukraine war significantly disrupted global energy markets. The imposition of Western sanctions on Russian energy exports led to a surge in global LNG prices as European countries sought alternative suppliers to reduce dependence on Russian gas, according to S&P Global.

In the meantime, Egypt seized this opportunity by maximizing LNG exports, leveraging its well-established infrastructure, including the Idku and Damietta LNG terminals. In 2022, Egypt emerged as the highest-growing Arab LNG exporter, according to the Organization of Arab Petroleum Exporting Countries (OAPEC). The country supplied approximately 7.5 million metric tons (mmt) of LNG to the global market, with the European Union (EU) becoming the primary destination, according to the Central Agency for Public Mobilization and Statistics (CAPMAS). Egypt's LNG exports to the EU surged by 359% compared to 2021, marking a striking increase in the volume of gas delivered to European markets, according to Eurostat

Declining Domestic Production, Electricity Shortages & the Shift to Imports

Despite its success in LNG exports, Egypt started to face challenges due to declining domestic gas production. Key gas fields, such as Zohr, have shown signs of reduced output, affecting the country's ability to meet domestic demand. Thus, turning Egypt into a net LNG importer again, increasing gas imports; both natural gas piped from Israel and LNG imports on the spot market with global gas and LNG prices remained elevated.

Egypt's Shift Toward Cost-Effective Energy Alternatives

With LNG prices remaining high, Egypt has explored alternative energy sources to reduce importing costs. One major shift has been toward increased reliance on fuel oil for power generation, as it became a more economical option compared to importing LNG, according to S&P Global.

Additionally, Egypt is actively negotiating long-term LNG supply contracts with foreign energy firms to secure more stable pricing and reduce exposure to volatile spot market fluctuations, according to Reuters.

Egypt's natural gas market has undergone significant transformations, balancing domestic needs with export opportunities. Gas pricing policies have played a crucial role in shaping market dynamics, influencing industrial costs, household energy expenses, and overall economic stability. Regulatory reforms and periodic price adjustments have shaped the market, ensuring adaptability to economic conditions. Moving forward, Egypt's energy strategy will focus on boosting domestic output, negotiating long-term LNG contracts, and maintaining energy security.

CONSERVING MATERIALS:

THE DARK HORSE OF OIL AND GAS

BY RANA AL KADY

To begin with, for many years, the oil and gas sector has been a vital component of the world economy, supplying the energy resources that run our everyday operations. However, the industry is changing as a result of the growing focus on environmental responsibility and sustainability. The creation and use of cutting-edge materials that are not only dependable and long-lasting but also ecologically harmless is a crucial component of this change. The fascinating developments in oil and gas materials that are paving the way for a more sustainable future will need to be taken into consideration.

General Overview

Instead of looking for methods to collect and repurpose waste materials, a real circular economy encourages more sustainable upstream product design. This may be supported by carefully reusing materials obtained from trash, which would link the upstream and downstream value chains of goods. Iterative advancements in product design might result from this, making it simpler to salvage materials and components for future use. These goods may also promote the emergence of greener practices and increase consumer knowledge of new sustainable options.

However, there are long-standing beliefs that materials that are recovered, recycled, or generated from waste are not as good as virgin materials. Yet, in this context, 'quality' mostly refers to usage. Recycled or recovered materials have the potential to upset value chains since modern industrial processes are set up and calibrated to use virgin resources. Nevertheless, manufacturers may benefit from employing recovered materials if they made certain changes to their operations. As suggested by a Construction Operations Manager, "Re-using materials is a technique that is only scratching the surface of sustainable [oil and gas upstream] activities. When this idea is mixed with other sustainable practices, like water recycling, decreasing methane leaks from flaring, or carbon capture [etc.], this is the way to fully make sure that there are sustainable practices to decrease emissions overall."

Enhancing Production through Material Use

The oil and gas industry places a high premium on sustainability, and this also applies to building materials. Businesses are looking more and more to use sustainable and recycled materials in their construction endeavours. To lessen waste and the industry's carbon impact, recycled steel, concrete, and plastics are used.

Furthermore, the oil and gas field-related materials are undergoing a transformation thanks to nanotechnology. Materials are being made stronger and more durable while being lighter by using nanomaterials like carbon nanotubes and graphene. These developments result in construction methods that are more environmentally-friendly and efficient.

Additionally, although contemporary metallurgy has generated improved alloys that are extremely resilient to corrosion, the industry's fight against corrosion never ceases. In the long run, these alloys support the environment and the bottom line by extending the life of equipment and lowering the need for maintenance and replacement.

At the same time, it is crucial to note that oil and gas infrastructure monitoring and maintenance are changing as a result of the use of digital technology. Real-time data on structural integrity may be obtained from smart materials having sensors integrated into them, enabling preventative maintenance and lowering the possibility of expensive mishaps, while also ensuring a boost in production.

To conclude, the materials used for developing the oil and gas sector are changing along with it. Sustainable options are becoming common, ranging from sophisticated composites to environmentally friendly coatings. These advancements in oil and gas building materials are essential to reducing environmental impact, enhancing safety, and guaranteeing the durability of crucial infrastructure as industry experts work towards a more sustainable future. Adopting sustainable materials is a conscientious decision that supports the global movement towards sustainability in addition to being a wise commercial one. Thus, it is absolutely imperative to continue to innovate and invest in materials that will help us create a more sustainable and greener environment moving forward.

THE OIL AND GAS INDUSTRY PLACES A HIGH PREMIUM ON SUSTAINABILITY, AND THIS ALSO APPLIES TO BUILDING MATERIALS. BUSINESSES ARE LOOKING MORE AND MORE TO USE SUSTAINABLE AND RECYCLED MATERIALS IN THEIR CONSTRUCTION ENDEAVOURS. TO LESSEN WASTE AND THE INDUSTRY'S CARBON IMPACT, RECYCLED STEEL, CONCRETE, AND PLASTICS ARE USED.

DRILLING FOR SUCCESS: EGYPT'S OIL & GAS SECTOR ON THE RISE

BY SARAH SAMIR

As Egypt navigates the complexities of the global energy landscape, enhancing its oil and gas production has emerged as a pivotal strategy for ensuring energy security and driving economic growth. The Egyptian government has been implementing various initiatives and incentives to boost production, from both conventional and unconventional resources, and attract upstream investments.

Positive Momentum in the Petroleum Sector

Egypt has been keen to boost its oil and natural gas production to meet energy demands. While highlighting the major achievements of the petroleum and mineral resources sectors over the last six months (July–December 2024), Minister of Petroleum and Mineral Resources Karim Badawi has recently revealed that Production rates have increased to 1.4 million barrels of oil equivalent per day (mmboe/d) following the drilling of 105 new wells, including 95 oil wells and 10 natural gas wells. This daily output includes 63,700 barrels of oil and condensates, as well as 271 million cubic feet (mcf) of natural gas.

This comes as several companies have recently surpassed their production targets. Notably, Borg El-Arab Petroleum Company (BORAPETCO) exceeded production plans in key areas, achieving 113% of targets in Borg El-Arab fields, 103% in Abu Sennan fields, and 100% in West Wadi El Natrun. This strong performance led to BORAPETCO producing 1.2 million barrels of oil equivalent (boe) during the first quarter of the fiscal year 2024/25. Furthermore, the Suez Oil Company (SUCO) has demonstrated significant progress at the Ras Badran field, increasing production by 3,800 boe/d to reach 7,500 boe/d, surpassing the initial production plan of 3,100 boe/d within the first three months of operations.

At the same time, Egypt has been reported to have several recent discoveries. The most recently announced discovery is the announcement made by ExxonMobil Egypt (Upstream) Limited, in January 2025, stating that the company encountered gas bearing reservoirs after completing the drilling of the Nefertari 1 well in the North Marakia Block with the Valaris DS-9 drillship. In this regard, the Ministry of Petroleum and Mineral Resources (MoPMR) commented that results after well logging showed the presence of two main gas-bearing layers in the Cretaceous formation, and initial estimates of the gas volume are being calculated. This discovery will open the door of hope for the western Mediterranean region and encourage companies to work there, the MoPMR anticipated.

Factors Leading to Production Growth

Several factors have contributed to the increase in oil and gas production in Egypt, particularly over the past months. This comes as Egypt's government has implemented several initiatives and incentives aimed at boosting oil and gas production while attracting upstream investments, over the past year. The Minister of Petroleum and Mineral Resources, Karim Badawi, has been at the forefront of these efforts, announcing a comprehensive strategy designed to enhance production capabilities and encourage foreign investment in the sector.

THE RECENT SURGE IN EGYPT'S OIL AND GAS PRODUCTION, DRIVEN BY INCREASED DRILLING ACTIVITY, SUCCESSFUL COMPANIES' PERFORMANCE, AND SIGNIFICANT NEW DISCOVERIES, SIGNIFIES A POSITIVE TRAJECTORY FOR THE COUNTRY'S ENERGY SECTOR.

One significant initiative includes the introduction of new incentives that focus on increasing production levels beyond current rates. These incentives are structured to promote exploratory and developmental drilling activities, thereby enhancing production operations; furthermore, they include new mechanisms that are associated with achieving an increase in production beyond the current rates, as well as an increase in exploratory, developmental drilling activities and production operations. Moreover, the MoPMR has outlined an ambitious plan that includes drilling 110 new exploratory wells with a total investment of $1.2 billion during the fiscal year (FY) 2024/25. Additionally, by 2030, Egypt will have invested $7.2 billion to drill 586 exploratory gas and oil wells, as mentioned by Badawi in July 2024 during his statement before a parliamentary committee.

Meanwhile, the MoPMR announced in August 2024 that the Egyptian Natural Gas Holding Company (EGAS) was initiating a new international bid round for 2024. This round focused on the exploration and extraction of natural gas and crude oil across 12 blocks located in the Mediterranean and Nile Delta regions. This bid round is part of the Ministry's strategy to attract new investments to Egypt, aiming to capitalize on promising opportunities in gas and oil exploration, particularly in the Mediterranean Sea, recognized for its significant natural gas potential.

As for the resources, Egypt is not only producing from conventional resources, but it is also paying great attention to developing unconventional resources and boosting brownfields efficiency to increase production. This comes as maintaining and increasing production rates in obsolete fields improves economic performance and reduces the import bill.

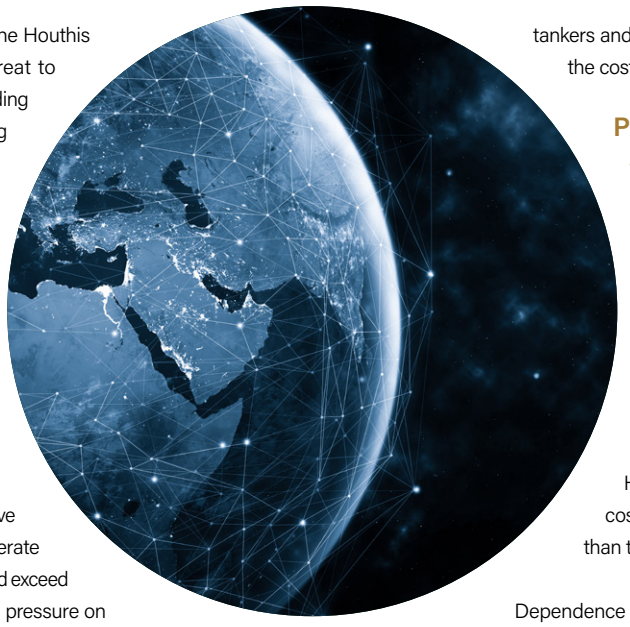
In this regard, the General Petroleum Company (GPC) announced, in December 2024, that it has succeeded in increasing its production from the Eocene reservoir, which is known to be an unconventional reservoir, by using the acid activation technique.

The recent surge in Egypt's oil and gas production, driven by increased drilling activity, successful companies' performance, and significant new discoveries, signifies a positive trajectory for the country's energy sector. These developments are not only bolstering energy security but also attracting substantial foreign investment. With a focus on both conventional and unconventional resources, coupled with strategic government initiatives and a commitment to innovation, Egypt is well-positioned to further enhance its energy production capabilities and solidify its role as a key player in the regional and global energy landscape.

CURRENT POLITICAL EVENTS AND THEIR IMPACT ON THE EGYPTIAN ECONOMY

Current political events are greatly impacting the oil industry with the escalation of the conflict in Gaza led to a rise in oil prices, notable the price of Brent crude increasing by approximately 10%. Fears of supply disruption due to regional tensions, especially if Iran intervenes, are worrying markets. The continuation of the Russian-Ukrainian war further complicates the situation and will have widespread legislative implications, requiring major countries to take measures to deal with the supply shortage. These dynamics are putting pressure on prices and affecting global economic stability.

The impact of the Houthis' control on Bab al-Mandab. The Houthis control the Bab al-Mandab Strait, posing a major threat to international shipping. Recent attacks on oil tankers, including targeting commercial ships, led to Saudi Arabia suspending oil shipments through this strategic corridor. About 25,000 ships pass through it annually. The Houthis, with support from Iran, have increased their military capabilities, enabling them to enforce a selective naval embargo. The continuation of these threats may negatively impact the global economy and reinforce the need to secure freedom of navigation in the Red Sea.



The Gaza war affects energy prices in Egypt through several key factors. First, the tensions have led to fluctuations in oil prices, increasing the cost of imported shipments by up to 12%. Second, gas supplies from Israel have stopped, leading to severe shortages of gas used to generate electricity and increased power outages. Third, oil prices could exceed $100 per barrel if conflicts continue, increasing economic pressure on the country.

Economic studies expect that the war on Gaza will lead to significant negative effects on the Egyptian economy. The United Nations Development Program estimates that the costs of the war could reach $20 billion, with an expected decline in tourism and Suez Canal revenues of about $9.9 billion in the medium scenario. GDP is also expected to decline with the unemployment rate rising to 9.1% in the extreme scenario. This increase is due to negative impacts on major economic sectors such as tourism and the Suez Canal, which negatively affects job opportunities and real income for families34. Expectations also indicate that the war will lead to a deterioration in living conditions, increasing social and economic pressures in the country.

These factors will increase pressure on the Egyptian economy and affect financial stability.

The war on Gaza significantly affects the tourism sector in Egypt. Booking rates declined in cities near the border, such as Taba and Nuweiba, as about 90% of tourist establishments there were closed. However, other cities, such as Luxor and Hurghada, were not affected to the same degree, as they maintained good occupancy rates. Expectations indicate a decrease in the number of tourists by about 20%, which could significantly affect tourism revenues if the war continues.

Egypt seeks to attract more investments in the oil and gas sector by offering 61 new investment opportunities for research, exploration, and production. 130 agreements have been signed since 2013, with investments exceeding $18.1 billion. It was also agreed with the UAE to pump $3 billion to establish a new logistics zone for trading petroleum products. The government is also working to enhance cooperation with American companies and apply modern technology to improve production efficiency and reduce carbon emissions, which contributes to achieving sustainable development goals.

The repercussions of wars on the movement of petroleum product prices in Egypt. The Gaza war, Houthi attacks on oil tankers, and Israeli strikes on Yemen affect energy prices globally. Recovery from the crisis requires calming the situation in the region. External events in Egypt's regional environment have affected contracts to import crude oil and fuel from some Asian markets. Egypt also has an annual contract with Iraq to import quantities of crude oil, and it also imports shipments from Kuwait, the Emirates, and Saudi Arabia. The rise in the cost of petroleum products is the most prominent repercussions of the wars surrounding us, in addition to the rise in the bill for transporting and shipping these products that are imported from abroad, after the exacerbation of geopolitical tensions in the Red Sea, as a result of the Houthi attacks on oil tankers and ships there, as it directly affected the price gap between the cost and the selling price of oil derivatives.

Petroleum investments in Egypt face several major challenges, including:

Aging infrastructure: Refining facilities and transportation networks need modernization, as aging negatively impacts efficiency.

Debts: Delayed payment of foreign companies' dues hinders the pumping of new investments and affects development processes.

High production costs: The petroleum sector bears a large cost differential as a result of selling products at prices lower than their actual cost, which increases financial pressures.

Dependence on imports: Egypt imports large quantities of petroleum products, which increases the financial burden and depends on global market fluctuations.

To improve the infrastructure in the petroleum sector in Egypt, the following solutions can be adopted:

Increased financing: Allocating additional financial resources through public and private partnerships to enhance investments.
Strategic planning: developing comprehensive plans that consider future needs and achieve integration between infrastructure components.
Facilities modernization: renewing transportation lines and warehouses to reduce waste and increase efficiency.
Enhance maintenance: Allocate sufficient budgets for preventive maintenance and periodic updates.
Using modern technology: applying digital systems to improve operations and increase operational efficiency.
Skills development: Training technicians and engineers to enhance technical and managerial capabilities in the sector.

To improve the Egyptian economy after the war in Gaza, the following steps can be taken:

Introducing legislation to promote investments: Attracting foreign and local investments by improving the business environment and providing tax incentives.
Diversifying revenue sources: Reducing dependence on tourism and the Suez Canal by developing new sectors such as technology and agriculture.
Improving infrastructure: modernizing and expanding industrial and transportation infrastructure to facilitate the movement of trade and increase productivity.
Strengthening social protections through enhanced laws: Providing support programs for vulnerable groups to counter the effects of inflation and unemployment.
Implementing flexible monetary policies: working to reduce inflation and improve the exchange rate to attract more external financing.
Developing education and training: enhancing workforce skills to meet market needs and increase productivity.
These steps aim to achieve economic stability and sustainable growth in the future.

ENG. MOHAMED ABDELRAOUF

Southern Area Gen Mgr - Khalda Petroleum Company

REVOLUTIONIZING CORROSION CONTROL:

HOW THE CARRIER LINE TECHNIQUE IS TRANSFORMING OIL AND GAS PRODUCTION

BY DOAA ASHRAF

Corrosion in the oil and gas industry is one of the critical issues that affect production. Along with its impact on the environment, corrosion is also viewed as an uncontrollable issue within current technology, leading to escalating costs associated with equipment replacement, production losses, contamination, and a decrease in the well's operational lifetime.

According to a study conducted by the National Association of Corrosion Engineers (NACE), the total annual cost of corrosion in the oil and gas production industry is estimated at $1.372 billion. That figure can be broken down into $589 million in surface pipeline and facility costs; $463 million annually in downhole tubing expenses; and another $320 million in capital expenditures related to corrosion.

An excessive amount of saline water and CO2 corrosion are the two leading causes of corrosion in downhole tubes.

This case study focuses on the application of the Carrier Line Technique (CLT) for downhole chemical injection of corrosion inhibitors in three active wells operated by El Hamra Oil Company, which are severely affected by corrosion problems due to a high water cut (W/C) exceeding 95% and the presence of CO2 gases.

Traditional techniques for dealing with corrosion

To prevent corrosion, different techniques are considered, such as internal lining, the use of corrosion-resistant alloys (CRA), or injection corrosion inhibitors.

However, adding extra thickness to well tubing for corrosion allowance could be expensive in the industry, while lining or injecting corrosion inhibitors are expensive in the long term.

Additionally, the lining has an essential drawback in applying artificial lifts besides its cost, as the tubes become thicker and decrease the fluid production further. Corrosion-resistant alloys (CRA) are another effective option, designed to withstand corrosive environments, thereby eliminating corrosion incidents altogether, although their initial material costs must be considered.

New technique

However, a study titled "Carrier Line Technique for Downhole Chemical Injection in the Oil and Gas Industry", addressed this critical issue of corrosion in oil production, highlighting its economic and environmental impacts.

This case study focuses on the application of the Carrier Line Technique (CLT) for downhole chemical injection of corrosion inhibitors in three active wells operated by El Hamra Oil Company, which are severely affected by corrosion problems due to a high water cut (W/C) exceeding 95% and the presence of CO2 gases.

The mechanism of CLT involves utilizing produced fluid as a carrier to transport corrosion inhibitors effectively within the wellbore, allowing for controlled delivery to specific zones that may be difficult to reach. This method is particularly beneficial in scenarios where the corrosion rate is exacerbated by increased water formation and CO2 gas predominance.

"Al-Razak in the Western Desert, a high saline reservoir, has high water content compared to oil reaching 80-90% W/C. This can lead to a high risk for corrosion due to saline water along with having a high content of dissolved CO2," said Ahmed Abdel Salam, Research Assistant at Alexendria University, who participated in the study. "This is a challenge for each material to stand with two types of common corrosion; "water and CO2", he added.

According to the case study, the Al-Razark field, includes Al#29, Al#38, and NE.Al#14 wells, faced significant challenges due to high corrosion recurrence. This led to reduced productivity, increased replacement costs, and potential environmental impacts, such as oil spills and high diesel consumption.

"We had to find a proper way to avoid the corrosion downhole. Accordingly, we used the carrier line technique (CLT) to drive the corrosion inhibitor to the downhole to make a layer preventing any direct contact from the produced fluid with metal parts. The results are amazing, the occurrence of downhole corrosion is reduced dramatically," he pointed out to Egypt Oil & Gas.

Result of the CLT technique

The study proved the effectiveness of the CLT in significantly lowering operational costs and enhancing profitability across multiple wells as follows:

Before using any chemical treatments, the operational costs at well 1 accumulated to approximately $396,307.94 over four years, which included production losses, equipment costs, workover unit costs, and fuel consumption. In contrast, after the introduction of downhole chemical injections, the operational costs dropped to about $24,301.37 during the same period, leading to actual profits of $372,006.57.

For well 2, prior to the application of CLT, the cumulative operational costs reached $194,694.80, which included significant expenses for equipment and workover units. After implementing the CLT, these costs were reduced to approximately $26,020.13, resulting in actual profits of $131,503.23 within two years.

Meanwhile, well 3 experienced a reduction in operational costs from $128,075.80 before using CLT to $15,000 after the treatment, yielding actual profits of $168,674.67 within just one year.

Therefore, by employing CLT, the company has been able to significantly reduce corrosion incidents and extend the lifetime of the wells, ultimately leading to substantial cost savings and improved operational efficiency. The technique not only effectively mitigates corrosion but also supports sustainable development goals by reducing the environmental impact typically associated with conventional corrosion management methods.

"We had to find a proper way to avoid the corrosion downhole. Accordingly, we used the carrier line technique (CLT) to drive the corrosion inhibitor to the downhole to make a layer preventing any direct contact from the produced fluid with metal parts. The results are amazing, the occurrence of downhole corrosion is reduced dramatically,"

A PAIR WITH ECONOMIC POTENTIAL:

OIL AND GAS PRODUCTION IN SINAI AND THE RED SEA

BY NADER RAMADAN

Egypt is in a race against time to enhance the quantity and quality of its national hydrocarbon production to a level that realizes its ambitions to become a self-sufficient, leading energy trading hub and fortify global energy security with Cairo being a main supplier to neighboring energy markets. Having the advantages of proximity, know-how, and the effective leadership of Egyptian Minister of Petroleum and Mineral Resources Karim Badawi, Egypt has yet to explore a new frontier that has the potential to boost national production to a whole new level. For many years, the Sinai and Red Sea have been two regions that have been left untouched but with recent discoveries, they could be the targets for further exploration and production for the years to come. With their abundant hydrocarbon resources, these two regions have the potential to give the local industry the much-needed boost that will catalyze its growth even further.

Sinai and the Red Sea (the Gulf of Suez in particular) have had significant historical impact starting with Egypt's first crude oil discovery in Gemsa field located in the Gulf of Suez, founded in 1869 and began producing in 1910. In addition, one of the most important fields, Ras Shukheir, is run by the Gulf of Suez Petroleum Company (GUPCO) and functions as an offshore oil-loading tanker terminal. Also, Egypt's fourth-largest oil field is the Ramadan field also located in the Gulf of Suez, and accounts for a significantly large portion of Egypt's oil production.

It should also be noted that together with the El-Morgan and Ramadan oil fields, the July oil field is Egypt's fifth largest and accounts for about 39% of the nation's total oil reserves. The West Amer (EGY-GOS-14) Block is situated in the Gulf of Suez offshore and the Eastern Desert onshore. The area is 907.9 square kilometers (km^2).

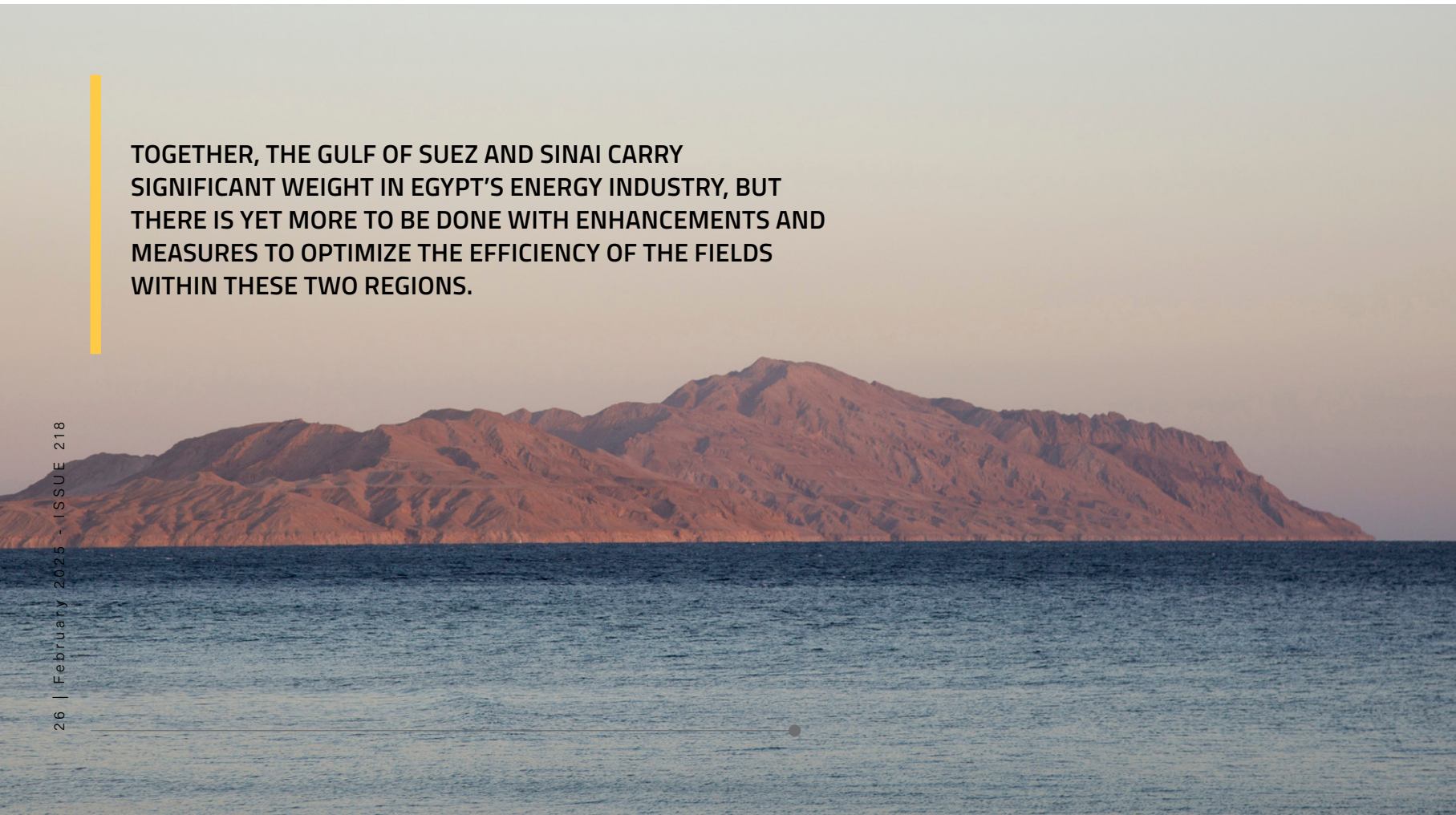
Onshore on Egypt's Sinai Peninsula, several assets play a significant role in the local industry. It is home to the East Lagia concession. It is owned and run by Vegas with a 100% working interest and spans 2,989 km^2 of land. In addition, the South Lagia (EGY-GOS-13) Block is situated offshore in the northeastern Gulf of Suez and onshore in Sinai. The total area is 954.7 km^2. The East Badri (EGY-GOS-15) Block is located offshore in the southeast Gulf of Suez and onshore in Sinai with a total area of 552.4 km^2.

Together, the Gulf of Suez and Sinai carry significant weight in Egypt's energy industry, but there is yet more to be done with enhancements and measures to optimize the efficiency of the fields within these two regions. It is worth noting that in fiscal year (FY) 2023–2024, the two regions accounted for around 38% of Egypt's total crude oil output, making them major contributors to the country's oil production. The petroleum sector in Egypt still relies heavily on these areas.

Initiatives are being taken to explore the Red Sea beyond the Gulf of Suez with advanced seismic survey research. One of the companies involved in the efforts is TGS. This leading global energy data firm said: "The Red Sea remains underexplored but is one of the world's biggest spotlight areas for hydrocarbon exploration after the Arabian Gulf. The densely explored Gulf of Suez and natural oil seeps around the Red Sea show that a working petroleum system is in place in the northern Red Sea and some of the southern provinces. Egypt is now exploring beyond the Gulf of Suez after the bilateral maritime demarcation with Saudi Arabia has been signed. The Red Sea, a frontier basin, contains an estimated mean volume of 5 Bbbls of undiscovered but recoverable oil and 112 tcf of natural gas (Schenk et al., USGS 2010). Since 1976, more than 28,000 km of 2D and about 4,000 km^2 of 3D seismic data have been acquired, along with 12 exploration wells drilled through several concessions."

As far as the Sinai is concerned, there is still a lot to be uncovered. Recent research by Mohammad Abdelfattah Sarhan from the Geology Department in Damietta University's Faculty of Science indicated the potential of natural gas reserves in the offshore North Sinai Concession in his paper titled "New prospective gas plays in pliocene sands, offshore Nile Delta Basin: A case study from Kamose-1 well at North Sinai Concession, Egypt". Yet, there is even more ground that needs to be covered.

Tapping into the Rea Sea and Sinai more extensively offers the petroleum sector in Egypt unlimited opportunities which could open the doors for investment which could thereby fund additional upstream operations to stimulate the national economy. Recent developments and improvements in the investment climate have further enhanced interest in the Red Sea and Sina as areas where more drilling and exploration can be conducted in the years to come.



TOGETHER, THE GULF OF SUEZ AND SINAI CARRY SIGNIFICANT WEIGHT IN EGYPT'S ENERGY INDUSTRY, BUT THERE IS YET MORE TO BE DONE WITH ENHANCEMENTS AND MEASURES TO OPTIMIZE THE EFFICIENCY OF THE FIELDS WITHIN THESE TWO REGIONS.

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BEYOND THE REGIME CHANGE: SYRIA'S POLITICAL AND ECONOMIC CROSSROADS

BY IHAB SHAARAWY

The fall of Bashar al-Assad's regime in Syria has ushered in a new era fraught with political, economic, and social challenges. The transition has reshaped the regional power dynamics and brought to the forefront critical questions surrounding governance, security, and the country's reconstruction. As the nation grapples with the aftermath of the regime change, the energy sector emerges as a pivotal player that can address the country's pressing needs and drive economic growth. The new administration has already issued its first tenders to purchase crude oil and refined products since the fall of Bashar al-Assad's regime in December, as severe fuel shortages continue to cause prolonged blackouts across the country. This was made possible only after the U.S. waived sanctions that had previously prohibited energy trade with Syria. The waiver may open a new window for Syria to capitalize on its energy potential and work toward economic recovery.

Political Landscape

The removal of the Assad regime would likely result in a power vacuum, with various opposition groups, ethnic factions, and international actors vying for control. This could lead to a prolonged period of instability, much like what was seen in post-Saddam Iraq or post-Gaddafi Libya. The absence of a unified opposition and the presence of multiple militia groups could further complicate governance.

At the same time, this power shift has redrawn the political map, with Turkey emerging as a key player in shaping the future of post-Assad Syria. Iran, a former ally of the regime, has seen its influence wane, while Russia faces challenges in maintaining its geopolitical strategy in the region.

Additionally, Israel's recent military expansion in Syria—beyond the Golan Heights, which it has controlled since 1967—is likely to heighten tensions with the new Syrian authorities. However, Al-Sharaa has sought to project a pragmatic and moderate image through cautious, restrained, and even somewhat positive statements about Israel in several media interviews.

Amidst these power struggles, the United States indicated that it will maintain its focus on combating ISIS and stabilizing Syria. The international community remains cautious about the rise of extremist groups and the potential for renewed conflict. As new alliances and rivalries take shape, the political landscape in Syria remains fluid, with regional actors vying for influence.

Economic Challenges

Syria's economy has been decimated by years of civil war and sanctions, leading to a significant contraction in GDP and soaring poverty rates. The country, once self-sufficient in oil production, now relies heavily on energy imports from Russia and Iran. The loss of oil revenues has had a cascading effect on government finances, further exacerbating economic woes.

With millions of Syrians displaced internally and externally, resettling them and providing employment opportunities would be a daunting task. The war has left millions unemployed, and poverty levels have skyrocketed. A strong economic recovery plan, including job creation initiatives, microfinance programs, and vocational training, would be essential.

Estimates suggest that rebuilding Syria could cost hundreds of billions of dollars. Given the extent of the destruction, securing funding from international organizations such as the World Bank, IMF, and Gulf states would be crucial. However, securing these funds would require a stable and transparent governance system that can assure donors of the effective utilization of resources.

Role of the Energy Sector

However, Syria holds significant untapped potential in its oil and natural gas reserves, which could be leveraged to boost economic growth and generate much-needed revenue. With the right investments and infrastructure development, the energy sector has the capacity to fuel Syria's reconstruction efforts and provide a lifeline for its struggling economy.

The energy sector also holds promise as a catalyst for addressing social needs, such as providing reliable electricity and heating for communities. Improved energy infrastructure can enhance living conditions, create job opportunities, and pave the way for sustainable development in post-conflict Syria.

Moreover, Syria's strategic location as a transit state for regional gas trade opens up avenues for collaboration with neighboring countries like Turkey and Lebanon.

Turkey, in particular, has expressed interest in leading the reconstruction of Syria's energy sector and leveraging energy exports to fund development projects. As Ankara seeks to establish economic partnerships with Syria, the energy sector emerges as a key area for cooperation and investment. Initiatives to enhance Syria's electricity supplies and explore joint ventures in oil and gas exploration can have far-reaching benefits for both countries.

For many experts, the post-Assad era in Syria would be marked by significant challenges but also some of them see opportunities for rebuilding and progress. Politically, the country would need to navigate governance issues, power struggles, and international influences. Economically, the focus would have to be on rebuilding infrastructure, stabilizing the currency, and creating employment opportunities. Socially, addressing sectarian divides and ensuring justice would be vital for long-term peace.

The energy sector could serve as a cornerstone for economic revival, providing the necessary resources to rebuild the nation. By leveraging its natural resources wisely, attracting foreign investment, and ensuring transparent governance, Syria could lay the foundation for a more stable and prosperous future. However, the success of these efforts would depend on the ability of Syrian leaders and the international community to work together in ensuring a smooth and sustainable transition.

ENERGY CRISIS:

THE IMPACT OF DECLINING RUSSIAN GAS SUPPLIES ON THE STABILITY OF EUROPEAN ENERGY MARKETS

Energy is one of the key factors that determine global economic stability and natural gas plays a vital role in this context, particularly in Europe, which heavily relies on gas to meet its needs for heating, industry, and electricity. Although Europe was previously dependent on Russian gas, political and geopolitical tensions in recent years, especially with the onset of the Russian war in Ukraine, have significantly affected market dynamics and European energy markets.

In general, Europe now faces significant challenges in ensuring the necessary gas supplies to continue meeting its energy needs, raising concerns about potential crises in the future if the current situation persists. In this context, this study examines the current state of the gas market in Europe and the challenges that could lead to an energy crisis in the near future.

Although the concept of energy security is not new in the European Union's policies, it has gained particular importance recently and is considered one of the most crucial pillars for all European countries. Therefore, the primary goal of European energy policy is to work towards securing stable sources that guarantee various energy production resources to citizens.

Building on the previous point, the crisis is related to Russia, which is one of the most important energy players in the world that affects the performance of global energy markets. With the onset of the war, global energy markets were affected, and countries took extraordinary steps to counter the repercussions of this crisis. Many countries turned to strategic reserves to reduce the pressure on the markets, aiming to send a message that there would be no shortage of global supplies.

In light of the above, European Union countries are preparing for the coldest winter since Russia's invasion of Ukraine, leading to higher energy costs as the continent accelerates the depletion of its gas reserves at a greater rate than usual. Temperatures are expected to remain lower than in the past two years between December 2024 and March 2025, likely causing heating demand to reach its highest level since the beginning of the war in Ukraine.

In light of these changes, the question arises as to whether Europe can strike a balance between securing the necessary gas supplies in the short term and transitioning to more sustainable energy sources in the long term. The current crisis serves as a real test of the EU's resilience in managing energy crises and assessing future risks. While these challenges test Europe's ability to endure, they also present a golden opportunity to strengthen regional and international cooperation in the energy sector and expand investments in renewable energy solutions, which could lead to a radical shift in the European energy landscape.

The loss of Russian gas, which had been a relatively economical option, has been a major shock to European industrial sectors since the beginning of the crisis. Dozens of factories have shut down, leading to the loss of nearly a million jobs over the past four years. The European industrial sector is suffering from a decline in competitiveness due to the rise in gas and energy prices in general.

Ultimately, emerging from this crisis will not be a fleeting task but a long-term process that requires close cooperation among European nations at various levels to build an energy infrastructure capable of withstanding global market fluctuations and confronting future challenges with strength.

Dr. Ahmed Sultan

Chairman of the Energy Committee / Cairo Engineers Syndicate

Member of the Board of Directors of the Cairo Engineers Syndicate

WHY WAS "BLACK" SAND GIVEN THIS NAME?

Black sand is given this name due its black color because it contains iron, which is dark, the most important of which are magnetite and ilmenite - the two largest components of this sand. Black sand is also called "specialized sand" because it contains some radioactive minerals such as monazite and zircon.

The report of the Egyptian Information and Decision Center explained that there is a difference in the concentration of heavy metals in black sand. There is a dark-colored type, which contains a percentage of heavy metals between 70% and 90%, and there is another gray-colored type that contains a percentage that does not exceed 40% of heavy metals.

Despite the many types of black sand, the most common is black sand made of volcanic minerals, which is spread off the coasts of volcanic islands.

Investment Opportunities and Government Efforts

Since the 1960s, the Egyptian government has tried to exploit black wealth, but it did not take actual steps other than exploratory studies until the establishment of the first Egyptian black sand mining company in April 2016, the National Black Sand Company in Burullus in the city of Kafr El-Sheikh.

In October 2022, President Abdel Fattah El-Sisi opened the Black Sand Factories Complex in the city of Burullus in Kafr El-Sheikh Governorate, at a cost of four billion pounds and an implementation period that took 12 months, with the aim of establishing new industrial complexes, achieving an economic return, and saving foreign currencies by exporting the surplus and providing 5,000 jobs (direct and indirect work).

Economic Importance of Black Sand

The strategic minerals contained in black sand are used in many economic industries. The most important of these minerals are zircon, monazite, magnetite, rutile, ilmenite, and garnet.

These minerals are used in industries that are currently of global interest.

Such as the manufacture of semiconductors and high-power magnets, the manufacture of aircraft structures, cars, missiles, submarines, spacecraft, prosthetic devices, the manufacture of petroleum pipelines, nuclear radiation materials, armored and military vehicles, railway tracks, the ceramic and tile industry, abrasive materials, high-tech flooring, and the crystal industry. Glass, sports equipment and cosmetics.

Medical Tourism

Black sand beaches are a distinguished destination for medical tourism for individuals around the world because they contain important minerals such as sulfur, magnesium, calcium, sodium and potassium, whether for the purpose of recovering from some diseases or for the purpose of relaxation and rest.

Some countries have already established medical tourism products on their black sand beaches to maximize the economic returns they reap from this type of tourism, such as Japan.

The black sands of Hurghada are also considered a distinguished destination for medical tourism in Egypt due to its proximity to the city of Safaga, which is rich in radioactive elements, which contributes to the treatment of many skin diseases, as well as rheumatoid diseases and rheumatism.

The Center for Information and Decision Making reported that Egypt has 11 black sand sites containing eight types of heavy metals, and it is expected that Egypt will reap revenues of more than EGP 255 million annually from each of these sites.

Nasr Yassien

Petro-Disouq Operations GM& Board Director

EGYPT OIL&GAS RESEARCH & ANALYSIS

QUARTERLY INDICATORS

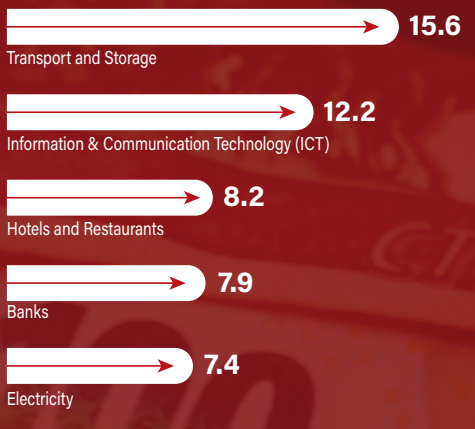
Egyptian Remittances ($ billion)

Egyptian Remittances grew by 84.4% in the first quarter (Q1) of the fiscal year (FY) 2024/25, reaching $8.3 billion. Remittances are a crucial source of foreign currency for Egypt and a significant driver of the country's economic growth. Notably, the net private was $8.307 billion compared to $4.491 billion in the same period a year earlier.

Gross Domestic Product (GDP) Growth Rate (%)

Q1 2023/24	Q1 2024/25
2.7	3.5

Five Highest Sectoral Growth Rate in Q1 2024/25 (%)



The GDP growth rate for the first quarter (Q1) of the fiscal year (FY) 2024/25 recorded 3.5%. This growth rate was driven by increase in key sectors growth. Transport and storage, information and communication technology (ICT) were the highest contributors to growth, representing 15.6% and 12.2% of the total GDP growth, respectively. This is despite a notable decline in the contribution of some key drivers of economic growth, such as the Suez Canal, which decreased by 68%.

MONTHLY INDICATORS

Annual Inflation Headline CPI (%)

Egypt's annual inflation decreased in December to 23.4%. This decrease in inflation was mainly driven by the decrease in prices of many products, including decrease in the vegetable's prices by 14%, Milk, cheese and eggs by 0.7 %, and fish & seafood by 0.6%. However, this decrease was partially offset by increases in other categories, such as a 7.5% rise in fruit prices, and a 5.5% increase in medical products, appliances, and equipment.

Despite the fluctuations in inflation rates trend, it remains significantly above the Monetary Policy Committee (MPC) upcoming inflation targets at 7% (± 2%) on average by the fourth quarter (Q4) of 2024 and 5% (± 2%) on average by Q4 2026.

November 2024 **25**

December 2024 **23.4**

Net International Reserves ($ billion)

Egypt's net international reserves (NIR) recorded a slight increase of 0.33% to reach $47.109 billion in December 2024 compared to November 2024. Gold was the dominant source of foreign reserves in December 2024, valued at $10.64 billion, followed by foreign currencies at $36.44 billion.

November 2024 **46.952**

December 2024 **47.109**

Non-Oil Private Sector PMI (Point)

Egypt's PMI fell to 48.1 in December from 49.2 in November, signaling a deeper contraction in business activity. Output shrank at its fastest rate in eight months, with new orders dropping sharply due to economic challenges and rising costs. Material costs surged, leading some firms to cut inventories, while employment declined for the second month. Despite these struggles, business sentiment improved from November lows, as firms remained hopeful about better domestic and geopolitical conditions in 2025, though inflationary concerns persisted.

November 2024 **49.2**

December 2024 **48.1**

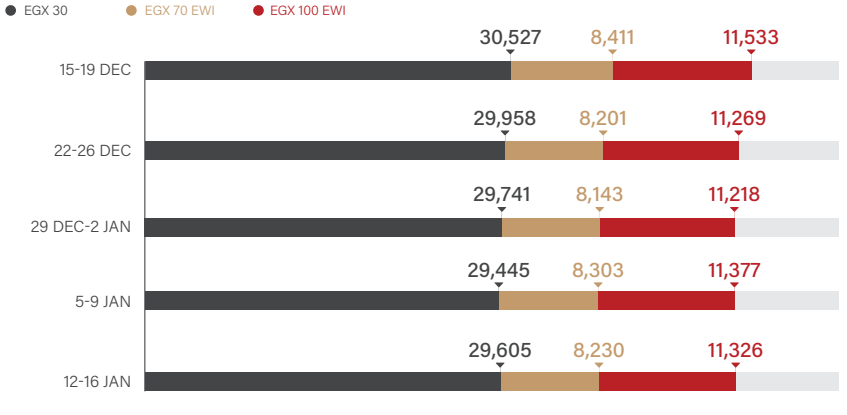
EGX HIGHLIGHTS

Performance of Listed Petroleum Companies (December 2024)

TAQA Petroleum	EDC	AMOC	EGYPT GAS	Sidpec
Close Price	Close Price	Close Price	Close Price	Close Price
11.77 EGP	4.69 USD	7.37 EGP	40.2 EGP	19.25 EGP
YTD Price Change	YTD Price Change	YTD Price Change	YTD Price Change	YTD Price Change
↓ 12.49%	0%	↓ 25.25%	↑ 0.5%	↓ 33.78%
P/E*	P/E*	P/E*	P/E*	P/E*
24.81	2.01	5.39	33.98	7.1

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

Capital Market Indicators



Drilling Achievements in the Mediterranean Sea

Drilling a Well in the North Marakia Block

ExxonMobil Egypt announced on January 15 that it is encountering gas-bearing reservoirs in the Nefertari 1 well and continuing to evaluate the results in partnership with Qatar Energy.

Well	Nefertari 1
Drillship	Valaris DS-9
Final Water Depth	2,700 m

Launching an Exploration Endeavor at Elking Area

Having completed wells at Raven field, Valaris DS-12 commences an exploratory drilling campaign Elking exploration area in the Mediterranean to reach the reservoir by the end of February 2025.

Exploration Target

Reaching Natural Gas
in the Lower Messinian Formation

Completing New Wells in Raven Field

On January 12, the Ministry of Petroleum and Mineral Resources (MoPMR) announced the successful completion of new wells in the Raven gas Field at the West Nile Delta (WND) Concession.

Drilled Wells: 2	Drillship: Valaris DS-12
Production start (Raven Field): February 2025	Operator: bp

Egypt's Energy Imports Savings

Egypt ensures the proper operation of petroleum companies and increasing the productivity of the existing fields. Upon returning to full production, the state will save $1.5 billion in energy Imports.

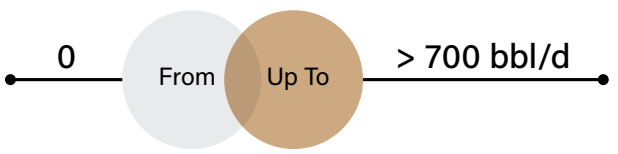
Value	Timeframe
$1.5 billion*	Next 6 months

*Announced on January 8

Increasing Unconventional Reservoirs Production

The General Petroleum Company (GPC) has succeeded in increasing production from the Eocene reservoir in the FF area, using an acid activation technique. GPC has developed a local demulsifier using mostly local raw materials, with a success rate of 100% compared to the imported product.

Increasing Eocene Reservoir Initial Production

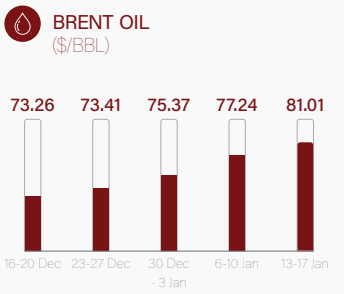


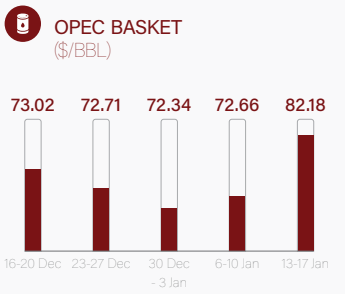
Local Demulsifier Savings

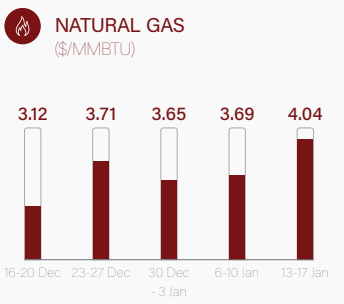
Savings/bbl		EGP 15,000
Annual Savings	EGP 20 million	EGP 75 million
	When Used in Sinai Fields	When Used in All Company's Fields

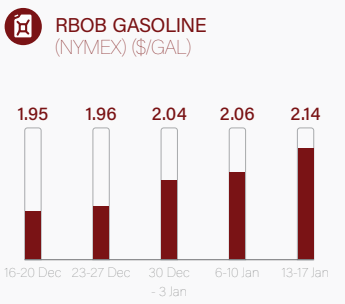
PRICING HIGHLIGHTS

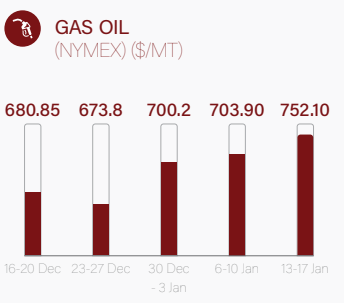
Average International Prices

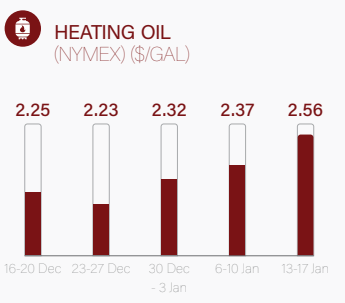












We take energy forward

We're committed to making energy safer, cleaner, and more efficient for people and the planet. By combining industry-leading technologies and services with operations in over 120 countries, we're collaborating with customers to transform the future of energy – everywhere.

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