

A MODERNIZED REFINING, PETROCHEMICAL APPROACH



EDITOR'S LETTER

Dear Reader,

Egypt's refining and petrochemicals industry serves as a vital sector for its economic growth and stability. With its strategic positioning, abundant resources, and supportive infrastructure, the country has developed a robust industry capable of meeting domestic demand, reducing import reliance, and contributing significantly to GDP. The sector's importance lies in its provision of energy security, employment opportunities, revenue generation, and downstream industrial growth – making it a cornerstone of Egypt's economy.

The EOG Team shall take this month as an opportunity to shed light on the tremendous efforts exerted for developing this sector over the previous years and explore the silver lining lying on the horizons of this important industry.

Integration of renewable energy and the role deregulation can play in the refining and petrochemical industries are tackled in articles provided by our team, who also introduced an overview of the modernized approach adopted by the Ministry of Petroleum and Mineral Resources to develop the sector.

Our Research and Analysis team also offers an insightful report on the Egyptian Western Desert, which is known also as Egypt's crude oil treasure. We hope you enjoy reading our articles and join us in our celebration of this prosperous and flourishing sector.

Ihab Shaarawy
MANAGING EDITOR

EGYPT'S **LEADING** OIL & GAS
MONTHLY PUBLICATION

General Manager
Ayman Rady
Research & Analysis Manager
Dr. Mahinaz El Baz
Managing Editor
Ihab Shaarawy
Senior Editors
Rana Al Kady
Nader Ramadan
Senior Writer
Sarah Samir
Staff Writer
Fatma Ahmed
Research & Analysis Supervisor
Reham Gamal
Research Analysts
Jolly Monsef
Mariam Ahmed
Maha Balbaa
Statistician
Nada Abbas
Chief Reporter
Wael El-Serag
Business Development Manager
Tamara Ewiss
Marketing Specialist
Shrouk Ihab
Creative Art Director
Omar Ghazal
Senior Graphic Designer
Merna William
Motion Designers/ Video Editors
Amira Hassan
Aya Aly
3D Visualizer
Tamer Gamal
Photographer
Hady Nabil
CEO Executive Assistant
Noha Zayed
Web Master
Olfat Kamel
Web Developer
Mohamed Elwakeel
Administration
Taghreed Mounir
Senior Accountant
Mahmoud Khalil
Accountant
Mohamed Nagy
Distribution Officers
Mahsoub Kenzi
Mohamed El-Sayed
Mahmoud Nabil
Osama Mohamed
Hesham Mohamed

CONTENTS

A Modernized Refining, Petrochemical Approach



- 10** | The Western Desert
Egypt's Crude Oil Treasure
- 16** | Renewable Energy Integration:
The Low-Hanging Fruit of the
Downstream Sector
- 18** | From Wellhead to Refinery:
How Transportation Management
Systems are Revolutionizing the Oil
and Gas Industry
- 20** | Using Deregulation as a Catalyst
for Downstream Economic Growth
- 21** | Research and Development:
The Smart Way to the Future
- 22** | Huawei's Green Field Summit
Reveals a Smart, Sustainable Vision
for Egypt's Energy Sector

Tower No.12 - Bavaria Compound, Ring Road in front of sama Tower - Egypt

(+20) 2 27498191 (+20) 2 27498192

(+20) 2 27498190

info@egyptoil-gas.com

www.egyptoil-gas.com

Proudly the Official Publication



Publisher
Mohamed Fouad

All rights to editorial matters in the newspaper are reserved by Egypt Oil and Gas and no article may be reproduced or transmitted in whole or in part by any means without prior written permission from the publisher.

Achieve exceptional drilling performance with an advanced, integrated BHA

- Eliminates days of rig time to deliver significant savings
- Delivers superior hole quality to eliminate reaming runs
- Drills longer laterals with greater speed
- Accomplishes exact well placement with near-bit azimuthal gamma-ray measurements
- Attains superior wellbore quality with automated wellpath trajectory control

Lucida™

Advanced rotary steerable service

CASE STUDY: DELAWARE BASIN, UNITED STATES

Baker Hughes delivered superior wellbore quality and faster penetration rates

17%

improvement in drilling efficiency

39%

reduction in average dogleg saved

62%

saved in drilling costs

2.7 days

reduction in drilling time

\$160K

reduction in maximum dogleg

TECHNOLOGIES AND SERVICES

- Lucida™ advanced rotary steerable service
- Dynamus™ extended-life drill bit

Baker Hughes 

TOP 5

Cheiron Makes Oil Discovery at Geisum, Tawila West Concession

Cheiron has announced a new oil discovery in the Geisum and Tawila West concession area in the Gulf of Suez.

The operations in the field are managed by the joint venture PetroGulf Egypt, on behalf of the Egyptian General Petroleum Corporation (EGPC), owning 50%, and the partners Cheiron, PICO, and KUFPEC 50%.

The discovery was made through the exploration well of GNN-11, and the well encountered 165 feet of net vertical strata of high quality in the Nubian Formation dating back to the pre-Miocene era.

This is the first time that the Nuba Crude Oil-Bearing Formation has been found

in the concession area, and the main producing reservoir of the field is located in the Nakhil Formation.

The well was drilled through the recently installed early production facility in the North Geisum field and the well was successfully put into production at a rate of over 2,500 barrels per day (bbl/d).

As a result of the new well and the successful drilling program, the total crude oil production has reached about 23,000 bbl/d compared to about 4,000 bbl/d per day before the development of the North Geisum field. The well is the fourth well to be completed through the early production facilities.

Cabinet Approves Three Draft Oil, Gas Agreements

The Cabinet approved three draft oil and gas commitment agreements for the Egyptian Natural Gas Holding Company (EGAS), the Egyptian General Petroleum Corporation (EGPC), and a number of international companies, with a total minimum drilling of 13 wells, and investments of about \$319.5 million.

The approved drafts included two commitment agreements to explore and exploit natural gas and crude oil

in the Masry and Cairo, offshore areas in the Mediterranean, between the Arab Republic of Egypt, EGAS, and ExxonMobil Egypt (Upstream) Limited.

The third draft commitment agreement is for the exploration, development and exploitation of oil, in the Geisum and Tawila West of the Gulf of Suez, between the Arab Republic of Egypt, EGPC, and the two companies, PICO Petroleum, and KUFPEC (Egypt) Limited.

Apache to Invest \$1.4B in Egypt in 2024

Prime Minister Mostafa Madbouly and Minister of Petroleum and Mineral Resources Tarek El Molla have met with a high level delegation from Apache Corporation to review the company's plans and investments in Egypt during the coming period.

The meeting was attended by John Christmann, CEO of Apache Corporation; Stephen Riney, Chief Financial Officer of Apache; and David Chi, Vice President of Apache Corporation and Country Manager for Apache in Egypt.

During the meeting, Christmann affirmed that Apache is committed to its investments in Egypt and looks forward to the government's support for the company's growth in the Egyptian market. He explained that the company intends to invest about \$1.4 billion in Egypt over the next year.

He added that the company has important working relations with Egypt, explaining that it has implemented plans to modernize work mechanisms at its sites in Egypt, which enabled Apache to increase oil production capacity by 10% to more than 150,000 barrels per day.

Damietta for Green Ammonia Becomes Egypt's First Company to be Established Using an Online Process

Prime Minister Mostafa Madbouly witnessed virtually from the government headquarters in the new city of El Alamein, a live experience to establish the first company electronically through the digital platform of the General Authority for Investment and Free Zones (GAFI).

The video conference witnessed the participation of Tarek El Molla, Minister of Petroleum and Mineral Resources; Omar Marawan, Minister of Justice; Manal Awad, Governor of Damietta, and Hossam Heiba, CEO of GAFI.

Heiba confirmed that GAFI, with this step, will have launched the service of establishing companies completely electronically, as part of its efforts to facilitate investors and apply the highest levels of transparency.

Madbouly directed the need to promote this important service on a larger scale, to acquaint investors with the necessary steps to enter the electronic platform, and to follow all steps leading to the establishment of the company electronically, and to facilitate them.

IPR Energy Group Announces Major Find in Alamein, Western Desert, Egypt

IPR Energy Group (IPR) has announced a major find in the Alamein/Yidma Concession, where IPR holds a 100% Working Interest.

This unprecedented find encountered 27 ft of net pay in the Lower Kharita reservoir, with an average production rate of 3,300 barrels per day (bbl/d) of oil at 36°API with less than 1% BS&W on a ½ in. choke.

Alamein 48-K was drilled to a depth of 8,960 ft utilizing the IPR-1 750 HP Drilling Rig, while testing and completion was carried out with the IPR-2 350 HP Workover Unit at a total cost of \$1.55 million. The well will be completed with an ESP and immediately put onstream through the existing Alamein/Yidma

facilities, adding significant material production for IPR and EGPC.

"This well has unlocked major potential in the Lower Kharita formation, and we will work to delimit this prolific reservoir throughout the Development Lease parallel to implementing waterflooding plans. IPR continues to increase investment in Egypt's energy sector after three decades of success in the petroleum sector and is working hard to pump in more funding to further boost Egypt's economy," Chairman & CEO Mahmoud K. Dabbous commented.

A BLAST FROM THE PAST

On 22 September 2020, the founding countries of the East Mediterranean Gas Forum (EMGF) signed a charter and formally established its headquarters in Egypt. The charter stated that the forum would act as a platform that will bring natural gas producers and consumers together to develop structured policy dialogue to unlock the unlimited potential of natural gas in the East Mediterranean region.

In 2018, EMGF was an idea recommended by Egypt after it made significant gas discoveries in the region, aiming to encourage all gas producers to cooperate in boosting natural gas production. After that, Cyprus, Egypt and Greece declared their intention to establish the EMGF, an initiative that was welcomed by the rest of the forum's other founding members including Israel, Italy, Jordan and Palestine. In 2019, energy ministers from Cyprus, Egypt, Greece, Israel, Italy, Palestine and Jordan met in Cairo for the first time to discuss the structure of the EMGF and agree on its main objectives.

According to the charter's statement released by the Ministry of Petroleum and Mineral Resources, the EMGF fully respects all the rights of its members and protects their natural resources under international laws. In addition, the forum supports their efforts to invest in their reserves and infrastructure through effective partnerships.

\$8.6 billion**Petroleum Exports Value During H1 2022/23**

Petroleum exports have jumped by 8.7% during H1 FY 2022/23, compared to the same period in FY 2021/22, increasing by around \$690.6 million, according to the Central Bank of Egypt (CBE)'s balance of payments data.

This is mostly driven by the growth in natural gas exports which accounted for nearly \$2 million. Petroleum exports represent almost 40% of the total exports during H1 FY2022/23, while 38.3% of the total exports are related to petroleum exports in the same period of FY2021/22. This comes in line with Egypt's persisting efforts to enhance the petroleum production and exploration activities to meet the local demand as well as boost exports.

NUMBER OF THE MONTH



“TOGETHER, YOUR PARTNERS IN EGYPT”



PAN MARINE GROUP

YOUR ONE-STOP SERVICE PROVIDER

PAN MARINE GROUP is a ONE-STOP service provider to our clients in Egypt through the following four companies:

- 1- Pan Marine Shipping Services
- 2- Pan Marine Logistics Services
- 3- Pan Marine Petroleum Services FZ
- 4- Medkon Lines Egypt S.A.E.

Our customers are our greatest asset; we aim to provide them with a one-stop service in the most economical way through understanding their needs, solving their problems, and being a supportive consultant.

ALEXANDRIA | CAIRO | DAMIETTA
PORT SAID | RAS GHAREB | SAFAGA
ABU QIR | SUEZ | SOKHNA



VROON OFFSHORE SERVICES

...CONNECTING MARKETS

VROON OFFSHORE SERVICES excels in the provision of diverse services and solutions for key offshore-support needs, including platform supply, emergency response and rescue, anchor handling tug supply, walk to work, crew transfer and subsea support. In addition, Vroon Offshore Services offers a wide range of complementary offshore services.

A highly qualified and professional team of on-board crews and shore-based colleagues handles the full management scope of our own modern and versatile fleet. Our portfolio also includes the provision of value-adding services to other ship owners, with expertise covering commercial, ship-management and operational matters.

ABERDEEN | DEN HELDER | GENOA | SINGAPORE



www.pan-marine.net

www.vroonoffshore.com

Alexandria Head Office

Marhaba Tower, Fouad Street, Off Horeiya Road, Alexandria 21131, Egypt

+2033913820 (10 Lines) +2033913829 Offshore@pan-marine.net

PROJECTS

TWMA Wins \$15M Deal for bp Project in Egypt

TWMA was awarded a \$15 million contract to support an oil and gas large-scale project for bp in Egypt.

According to the contract, TWMA will utilize its award-winning RotoMill drill cuttings processing technology to process all drilling waste generated from bp's WND & END exploration and development project in the Mediterranean Sea. Expected to last up to five years, work will commence in October this year.

The RotoMill has been chosen for its environmental benefits. It uses a process of thermal desorption to separate drill cuttings and associated materials into their three constituent parts: oil, water and solids, for recycling and reuse. TWMA's precision equipment establishes optimum temperatures to ensure that recovered base oil retains its full original quality and can be reused in the drilling mud system.

El Molla Inaugurates Phase 3 of MIDOR Expansion Project

Minister of Petroleum and Mineral Resources Tarek El Molla conducted a field tour of the Middle East Oil Refinery's (MIDOR) expansion projects in Alexandria.

During the tour, El Molla inaugurated the trial operation of the third phase of the project, which includes the air and vacuum distillation complex, the diesel hydrogen treatment project, the hydrogen production project, the acid water treatment unit, and the cooling water unit.

In a meeting, the minister highlighted the importance of the expansion project in MIDOR and the consequent increase in the refinery's capacity and production.



During the tour, El Molla and the audience listened to a presentation by Sayed Al-Rawi, MIDOR's Chairman, about the progress in the expansion project, which aims to increase the refinery's capacity by about 60%.

El Molla Inaugurates New Projects in New Alamein

Minister of Petroleum and Mineral Resources, Tarek El Molla, had a tour at the Al-Hamra Petroleum Port in the new city of El Alamein on the Mediterranean, during which he inaugurated and laid the foundation stone for a number of ongoing development and expansion projects in the port, which are being implemented by the Western Desert Petroleum Company (WEPCO).

WEPCO's projects come within the framework of the strategy to develop and enhance the infrastructure in the sector.

During the tour and follow-up of the new projects, El Molla confirmed that the infrastructure of the petroleum sector in the new Alamein region, represented by the Al-Hamra Petroleum Port, is an important opportunity and advantage that the sector is working to maximize and exploit in an optimal manner and increase the achieved returns supported by the geographical location and human competencies.



El Molla laid the foundation stone for the new project that serves the new urban community in the new city of El Alamein and its industrial backyard to secure its fuel requirements. The petroleum products storage and shipment area, with a capacity of about 400,000 tons, will also help reduce the movement of vehicles transporting petroleum products on the coastal road.

The minister also inspected the ongoing works to implement the expansion project and increase the storage capacity of Al-Hamra port by expanding the northern region of the port to maximize the circulation and reception of crude oil.

MINING

GTEZ Signs Geological Protocol with General Authority for the Implementation of Industrial and Mining Projects

Minister of Petroleum and Mineral Resources Tarek El Molla and Minister of Trade and Industry Ahmed Samir witnessed the signing of a five-year cooperation protocol between the General Authority for the Golden Triangle Economic Zone (GTEZ) and the General Authority for the Implementation of Industrial and Mining Projects.

The protocol is for the provision of consulting services for engineering works

and technical requirements for projects within the economic zone of the Golden Triangle.

The agreement comes within the framework of the government's keenness to provide all means of support for the Golden Triangle project, as it is one of the major national projects that serve the southern region of Egypt, in addition to its sustainable development and advantageous location.

IMPORTS AND EXPORTS

East Port Said Receives World's First Green Fuel Ship

The Suez Canal Economic Zone has announced the arrival of the first green fuel container ship in the world.

The ship was received by East Port Said in the first voyage of the ship, belonging to the shipping line Maersk, to an Egyptian port overlooking the eastern Mediterranean. The ship is coming from Asia, passing by Africa, through Egypt, and then on to Europe.

The container ship arrived at the port of East Port Said, which is ranked among the ten most important ports in the world, according to a World Bank report.

This reflects the confidence of the shipping lines in the Authority's ports in particular due to the remarkable development witnessed in Egyptian ports.

Finance Ministry Announces New Procedures to Exempt Oil Companies from Fines to Boost Exports

Minister of Finance Mohamed Maait issued a decision to amend some provisions in the executive regulations of the Customs Law.

The amendments contribute to strengthening governance and simplifying procedures to reduce customs release time, in a manner consistent with efforts to make Egypt a regional transit trade hub.

Al-Shahat Ghatari, Head of the Customs Authority, confirmed that new measures have been taken to exempt petroleum companies from fines and boost exports. These companies were allowed to adjust the quantities exported documented according to what was actually shipped within 72 hours, after it was found that there were differences in the quantities as a result of the nature of the petroleum materials. This comes as they are pumped through pipes from warehouses to the means of transportation, where quantities remain in these pipes. This represents a difference between what was in the warehouse and what was shipped.

GREEN HYDROGEN

Madbouly Reviews Green Hydrogen Project with Annual Capacity of 400,000 Tons

Prime Minister Mostafa Madbouly held a meeting to discuss a proposal submitted by a major foreign company to build a green hydrogen plant in Egypt.

The meeting was attended by Mohamed Shaker, Minister of Electricity and Renewable Energy; Mohamed Salah El-Din, Minister of State for Military Production; Roberts Ludafix, CEO of the company executing the project; and Alaa Hagar, Undersecretary of the Technical Office at the Ministry of Petroleum and Mineral Resources.

The attendees discussed an offer submitted by a major foreign company to set up a giant plant to generate green hydrogen, through direct foreign investments.

The project's capacity is set to reach 400,000 tons annually, through full reliance on solar energy with a capacity of 15 gigawatts. The station's production of green



hydrogen will be completely exported to Europe, as it is intended that the exports of this project reach one billion dollars annually, and the project will provide many job opportunities. A feasibility study for the project will start during the coming period, and a prime location has been selected for this project.

At the end of the meeting, Madbouly welcomed this project, requesting the start of feasibility studies.

PM Chairs Green Hydrogen Industry Roundtable

Prime Minister Mostafa Madbouly chaired the fourth edition of the roundtable on the green hydrogen industry in Egypt, which was held in New Alamein City.

Madbouly said that Egypt has taken important measures that made it occupy a competitive position in the green hydrogen sector thanks to the state's commitment to Egypt Vision 2030.

The Prime Minister also touched on the completion of the second update of the Nationally Determined Contributions Plan, through which Egypt aims to raise the share of renewable energy in the energy mix to 42% by 2030 instead of 2035.

The prime minister also explained that the Suez Canal crossings account for 15% of global maritime trade annually, which is an important opportunity to provide green fuel services to ships passing through the canal.



Egypt has succeeded in signing more than 20 memoranda of understanding with major companies developing green hydrogen, Madbouly pointed out. He added that 10 of these partnerships have been developed to the level of framework agreements to implement investments worth about \$83 billion, to produce 15 million tons annually of green ammonia and manufactured green methane.

AGREEMENTS

PetroSafe, Integral Consult Sign HSE Agreement

The Petroleum Safety & Environmental Services Company (PetroSafe) and Integral Consult signed a joint HSE cooperation agreement to enhance occupational safety and sustainability.

The agreement aims for PetroSafe and Integral to cooperate in providing multiple and advanced services in the fields of safety, occupational health, environment, sustainability and energy consultancy to all companies in the petroleum and mining sectors, in order to keep pace with the growing development in these areas at the global level.

The services set to be provided through the agreement include the service of assisting companies to identify opportunities for energy saving through conducting technical studies, capacity building in various aspects of energy management, designing renewable energy, as well as energy efficiency and the cogeneration system. This is in addition to helping companies identify opportunities to reduce resource



consumption and enable cleaner production by doing technical studies.

Many services that support climate action and sustainability operations will also be provided. This includes feasibility studies for registering mitigation projects in carbon platforms, evaluating carbon footprints, preparing a document for mitigation projects for registration in carbon platforms, and building capacities in the field of climate change. Services also involve preparing a sustainability strategy and providing consulting services for LEED & EDGE certification.

DOWNSTREAM

El Molla, Environment, Agriculture Ministers Review Eni Biofuel Proposal

Minister of Petroleum and Mineral Resources Tarek El Molla held a meeting with Yasmine Fouad, Minister of Environment; Adel El Ghadban, Governor of Port Said; representatives of the Italian company Eni; and Alaa Azouz, Head of the Agricultural Extension Sector at the Ministry of Agriculture, on behalf of the Minister of Agriculture.

The meeting discussed the proposals submitted by Eni to study the implementation of a new community project in the Port Said governorate within the framework of the community contributions of the oil and gas sector in the governorate.

At the beginning of the meeting, the ministers and participants listened to a presentation by Mahmoud Abou El Yazid, External Relations Manager at Eni, regarding a proposal to establish a project for a system to safely manage animal and agricultural waste in the Qabouti area in Port Said and use it to generate biogas fuel and organic fertilizers. This will help preserve the environment as well as the economic benefits of the project area.

El Molla further highlighted the interest in the contributions of the oil and gas sector in improving the lives of the average citizen.

Town Gas Establishes First Overseas Branch in Saudi Arabia

The Egyptian Company for Natural Gas Distribution (Town Gas), a firm which has played a pivotal role in delivering natural gas to facilities and homes, has completed the establishment of its first overseas branch in Saudi Arabia.

This step comes within the framework of an ambitious strategy for the oil and gas sector supported by Tarek El Molla, Minister of Petroleum and Mineral Resources, to expand business for specialized companies throughout Arab countries and foreign markets, especially those that are witnessing great growth and development in the implementation of projects and infrastructure, such as Saudi Arabia.

This represents opportunities for companies to increase the volume of business, especially since the project companies in the oil sector have a tangible presence in the Saudi market and contribute to the implementation of many infrastructure projects in the energy sector.

Cargas, Caps Auto Launch New Mobile Service for Converting, Maintaining Gas-Fuelled Vehicles

Natural Gas Vehicles Company (Cargas) has launched a new mobile service to convert and maintain cars to run on natural gas in cooperation with Caps Auto Company.

The new service comes in implementing the company's policy to provide the highest level of services to customers and emphasize fruitful and continuous cooperation with its partners to enhance the company's activities as well as spread and expand the scope of services nationwide.

The cars are equipped with all the necessary equipment for conversion and maintenance, and an experienced and efficient team carries out the work to provide the service in the customer's locations. The car conversion and maintenance service is offered to companies and institutions in their headquarters, through the pre-booking service on the short number 15844.

WINTERSHALL DEA



wintershall dea

WINTERSHALL DEA PRODUCES 35,000 BOE/D FROM EGYPT IN Q2 2023

During its Q2 media roundtable, Wintershall Dea CEO Mario Mehren stated that Egypt's output makes up 10% of the company's production.

The roundtable highlighted the company's interest in CCS and carbon-capturing projects in its global portfolio, which includes Norway and Denmark.

The company has had stable operational overall performance, with a daily quarterly production of 322,000 barrels of oil equivalent (boe) for the quarter, which is higher than the daily output in Q2 2022 by 8000 boe.

Wintershall Dea adjusted net income €203 million, up 30% year-on-year (YoY), thanks to a lower effective tax rate.

The company announced "free cash flow of -€522 million, significantly lower YoY, due to softer commodity price environment and €1.0 billion of final 2022 tax payments in Norway based on strong earnings in 2022."

DRAGON OIL



DRAGON OIL TO BOOST OIL PRODUCTION FROM EGYPT BY 27% IN OCTOBER

Dragon Oil company, wholly owned by the government of Dubai, intends to increase its oil production in Egypt by about 27% during next October to 70,000 barrels per day (bbl/d).

The company will start production within two months from the North Safa field in the Gulf of Suez, with a capacity of 15,000 bbl/d of oil.

Dragon Oil is an oil and gas exploration, development and production company

headquartered in Dubai and wholly owned by the Emirates National Oil Company (ENOC).

Dragon Oil's endeavor to increase its oil output in Egypt comes at a time when the country has been suffering from continuous power outages since the beginning of summer.

DANA GAS



DANA GAS AWAITS PARLIAMENTARY APPROVAL OF AGREEMENT WITH EGAS

Dana Gas expects to obtain approval from the Egyptian Parliament for the agreement concluded with the Egyptian Natural Gas Holding Company (EGAS) at the end of this year, Mohammed Mubaideen, Head of Investor Relations at the company said.

This new agreement will guarantee the company drilling 11 new wells and investments of \$100

million during the next two years, and will also ensure the unification of concession areas between the two companies, Mubaideen noted.

Mubaideen also stated that the decline in the company's profits during the second quarter of this year is mainly due to the drop in oil prices.

Production in Egypt witnessed a decrease, indicating a decline in revenues from \$62 million

during the past year to \$52 million in 2023, Mubaideen confirmed.

Additionally, Mubaideen addressed the issue of the general assembly's approval to increase the percentage of foreign ownership from 49% to 100%, as he expected that this decision would have a positive impact on liquidity.

ARAMCO



ARAMCO RANKED AS THE WORLD'S MOST PROFITABLE COMPANY

Saudi Aramco has ranked again as the world's most profitable company over the last 12 months, achieving \$156.36 billion in profits. This happened despite the company's 38% decline in profit during the second quarter of this year.

Lower crude oil prices and the weakening of refining and chemicals margins caused this decrease in revenues.

However, the company made significantly more profit than second-placed Apple, which had a profit of \$94.32 billion.

Aramco's market value sits at an estimated \$2,055.22 billion, just behind Apple and Microsoft.

Aramco plans to expand its oil production capacity by 1 mmbbl/d to 13 mmbbl/d by 2027,

with most of the increase coming from offshore fields.

As of 2023 through 2025, Aramco expects to tender and award contracts for 66 projects related to oil and gas processing and refining facilities, 14 related to pipelines and distribution, and 10 for civil infrastructure and security systems.

ADNOC



ADNOC SIGNS LNG AGREEMENT WITH JAPAN

Abu Dhabi's ADNOC Gas has signed a five-year contract to supply liquified natural gas (LNG) to the Japan Petroleum Exploration Co. (JAPEX).

The deal follows Japanese Prime Minister Fumio Kishida's visit to the UAE and other Gulf states in

July, which focused on securing energy supplies for Japan, a country that remains highly dependent on oil and gas imports.

The agreement, valued between \$450 million to \$550 million, builds on the long-standing bilateral

relationship between the UAE and Japan, in addition to fostering ADNOC's global presence as Ahmed Alebri, ADNOC's Chief Executive Officer said.

EQUINOR



EQUINOR MAKES NEW DISCOVERY IN THE NORTH SEA

Equinor has announced that it has made a new discovery in the Troll/Fram area in the northern North Sea with volumes estimated at between 9 and 35 million barrels of oil equivalent (mmbbl/d).

The company said that this is the ninth successful well in this area in 12 attempts since 2019.

The discovery has both oil and gas, but it is mostly oil. The licensees regard the discovery as commercial and will consider tie-back to other discoveries and existing infrastructure in the area.

Equinor is the operator of the license, while Vår Energi, INPEX Idemitsu Norge and Neptune Energy Norge are partners.

CHEVRON



CHEVRON TO RAMP UP PRODUCTION AT AUSTRALIA'S WHEATSTONE GAS FIELD

Chevron has announced its plan to increase its domestic gas production from the Wheatstone gas field in Western Australia, from 205 terajoules (TJ) to 215 TJ per day, following technical and plant modifications.

"Plant modifications and subsequent high-rate production trial undertaken over the past year had confirmed the facility was able to maintain

safe and reliable domestic gas production at an increased rate," Chevron Australia Managing Director Mark Hatfield said in a statement.

The Chevron-operated Wheatstone Project is one of Australia's largest resource developments and the nation's first liquefied natural gas (LNG) hub – providing greater security of energy supply as

well as significant economic benefits to the country.

Australia is the world's biggest LNG exporter and Woodside Energy's (WDS.AX) Northwest Shelf, along with Chevron's Gorgon and Wheatstone projects, supply about one-tenth of the global market.

EXXON MOBIL



EXXON MOBIL TO INVEST \$12.93BLN IN GUYANA

Exxon Mobil Corp (XOM.N) and partners would invest \$12.93 billion to develop the Whiptail project in Guyana, according to the report recently published by the governmental Environmental Protection Agency (EPA).

ExxonMobil had approached the Environmental Protection Agency (EPA) for approval for the Whiptail development. According to the Guyana's Environmental Impact Assessment (EIA), this offshore project will target between 33 and 72

wells. The drilling development is expected to last from late 2024 or early 2025 through mid-2030, with the possibility of extending it as late as 2031.

The exact locations of the Whiptail development wells have not yet been finalized; however, the wells will be drilled from up to ten drill centers. The floating production platform for the Whiptail project would start operations in 2027 and bring the Exxon-led consortium's oil output in Guyana to over 1.2 million barrels per day (bpd).

It is worth noting that Between 400 million and 640 million standard cubic feet of gas per day (mscfd) will be produced in association with the produced oil. However, ExxonMobil does not plan to export the gas. It has proposed using some of the fuel for the project, then reinjecting the rest to maintain reservoir pressure and improve oil recovery.

TOTALENERGIES



TOTALENERGIES REACTIVATES \$27B CONTRACTS WITH IRAQ

Basra Oil Company announced on Sunday the activation of four strategic contracts worth \$27 billion with France's TotalEnergies (TEF.PA) in the fields of oil, gas, renewable energy, and seawater.

Two of the Four contracts have been dedicated to the Gas Growth Integration Project (GGIP) in Basra which aims to capture flared gas and deploy renewable energy sources. The two contracts include the development of the Artawi field,

Al-Subba, Al-Luhais, and Al-Toba located North of Basra, in addition to the development of the strategic Majnoon field western-north of Basra, and gas field West Qurna 2.

Another contract related to the seawater project, which produces 5 million barrels for the purpose of water injection operations and continuity of production in the oil fields in Basra, Maysan, and DhiQar. The fourth project is the electric power project, which produces 1,000 megawatts.

The activation of the four contracts began on August 16, 2023, and currently, it will enter the stage of a contractual commitment to implement the investment contracts signed in its final version in 2023, according to Bassem Abdul Karim Al Shamkhani the Director General of Basra Oil Company.

SHELL



SHELL DELIVERS FIRST GAS FROM TIMI PLATFORM IN MALAYSIA

Sarawak Shell Berhad (SSB), a subsidiary of Shell plc, has announced the commencement of gas production at Timi, the first platform powered by renewable energy in Malaysia.

Timi, a sweet gas field discovered in 2018, is designed to produce up to 50,000 barrels of oil equivalent per day (boe/d) of gas at peak production and will evacuate its gas through a new 80-kilometer (km) pipeline to the F23 production hub. The project supports future

growth in the central Luconia area, off the coast of Sarawak.

Timi features Shell's first wellhead platform in Malaysia that is powered by a solar and wind hybrid power system. This unmanned platform is also more cost-efficient, being around 60% lighter in weight than a conventional tender-assisted drilling wellhead platform that relies on oil and gas for power.

This project demonstrates Shell's commitment to relying on renewable energy to deliver enhanced production while cutting emissions. "Bringing the project online is also an example of our focus on performance, discipline, and simplification. It shows our ability to innovate and deliver safe, reliable, and sustainable projects that support a balanced energy transition for Malaysia," said Zoe Yujnovich, Shell's Integrated Gas and Upstream Director.

SINOPEC



SINOPEC TO KEEP REFINERY PRODUCTION STEADY DURING Q2 2023

Sinopec has announced that its refinery will maintain the same level of production during Q2 of 2023 after recovering domestic fuel demand due to the decline of its profit by 20% because of lower oil prices, Reuters reported.

The company said that it plans to produce 127 million metric tons of oil between July and December compared to 126.54 million tons during the Q1 of 2023. This will increase the annual production by 4.7% from 2022 reaching 253.5 million tons in 2023, according to Reuters data.

Sinopec reported that its profits declined by 20.1% during Q1 2023 compared with the same period of 2022 recording \$4.82 billion due to the lower oil prices. Its revenues also declined by 1.1% although it recorded an increase of 18.5% in the total domestic and overseas sales of refined fuel.

THE WESTERN DESERT

EGYPT'S CRUDE OIL TREASURE

BY JOLLY MONSEF, MARIAM AHMED & MAHA BALBAA

The Western Desert (WD) is always considered to have a promising crude oil potential for further exploration and production. It is the largest crude oil-producing area in Egypt, contributing around 53% of crude oil production in 2022, followed by the Gulf of Suez which contributed around 25%, according to the Egyptian General Petroleum Corporation (EGPC).

The Western Desert still has untapped resources that encourage the government to work on further developments and attract international investors to operate more in them. The region also has a firm infrastructure that serves post-production operations. All Western Desert crude oil production is transported to Al-Hamra Terminal through three main pipelines from Agiba Petroleum Company, Badr Petroleum Company (BAPETCO), and Western Desert Operating Petroleum Co. (WEPCO), which are automatically controlled and well monitored by metering stations, according to the WEPCO website.

This report gives an insight into the Western Desert production, rigs, and active agreements in the first half (H1) of 2023. This is in addition to offering an overview of the key players in the region, and major fields.

WESTERN DESERT'S HIGHLIGHTS

The Western Desert is the largest crude oil producer in Egypt. During H1 2023 it contributes with a monthly average production of about 7.7 million barrels (mmbbl). The region has the lion's share in active agreements until June 2023, representing about one-third of the total, followed by the Mediterranean and Gulf of Suez areas where both embraced 23.9% of the total agreements. Furthermore, it has more than half of the rigs in Egypt.

Flashbacks

Several successful crude oil exploration discoveries have been made in the Western Desert throughout the years. The first commercial crude oil discovery in the Western Desert was in Alamein Field; it was made by Phillips Petroleum Company in 1966, and its oil was found at a distance of approximately 19 km south of Alamein. Its initial estimates put the flow at about 14,000 barrels per day (bbl/d), according to WEPCO.

Crude Oil Production in H1 2023

 **46.17** mmbbl
VOLUME

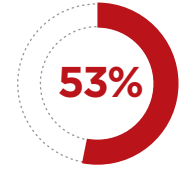


WD's Crude Oil Production Shares in H1 2023

SHARE IN TOTAL WD'S
PETROLEUM PRODUCTION

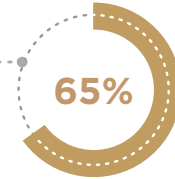


SHARE IN EGYPT'S TOTAL
CRUDE OIL PRODUCTION



WD's Rig Count in June 2023

RIG COUNT



SHARE FROM
EGYPT'S RIGS
COUNT

WD's Active Agreements Until June 2023



51
NUMBER

SHARE FROM
TOTAL AGREEMENTS IN EGYPT



32%

REGION'S KEY OPERATORS

The Western Desert is an attractive region for International Oil Companies (IOCs). Many IOCs have been awarded several blocks across the region where they operate through their Joint Ventures (JVs) companies in partnership with National Oil Companies (NOCs).

NUMBER OF OPERATING COMPANIES



OPERATING COMPANIES

IOCs	NOCs
Apache	Hamra Oil
Cheiron	Tharwa
Sipetrol	Alamein
Apex	Kom Ombo
Kuwait Energy	Marina
HBSI	EGPC
Naftogaz	Sahara
IPR	Enpedco
North Petroleum	GPC
Mediterra	-

OVERVIEW OF MAJOR FIELDS

The Western Desert has many crude oil-producing fields, the largest and most known are Meleiha, South Ghazalat, Badr El Din, Ptah, and Berenice.

NUMBER OF
WD'S CRUDE OIL FIELDS

+600

SIGNIFICANT WD'S CRUDE OIL FIELDS

Meleiha	Badr El Din	Berenice	Abu El Gharadig	West Kanayes	Ras Kanayes	Sitra	Alam El Shawish	Abu Sennan
South Ghazalat	Ptah	West Kalabsha	Siwa	Alamein	Qarun	Horus	Dabaa	Ghazalat

Meleiha

The Meleiha field was discovered in 1972 by WEPCO when the company drilled the first well, Meleiha-1X. In 2011, Agiba successfully drilled a new exploratory well, Zarif-1X, in South Meleiha with an investment cost of \$3 million. Eni announced in 2020 the successful

drilling of the SWM-A-6X well, in the South-West Meleiha development and exploration concession with daily production of 5,000 bbl/d of crude oil. The field is operated by Agiba, the JV between EGPC and Eni through IEOC, its subsidiary, according to Eni's press release.

South Ghazalat

The South Ghazalat field is located in the Abu Gharading basin. The field was discovered in late 2018 through the drilling of the SGZ-6X, which was discovered by TransGlobe, the field's operator, with added reserves of about 0.48 mmbbl of crude oil. In November 2013, TransGlobe acquired a 100% working interest (WI) in the South Ghazalat Exploration Concession.

In March 2021, TransGlobe announced the successful recompletion of the SGZ-6X well into the lower Bahariya reservoir. The well started production at an estimated production rate of 3,600 bbl/d of light oil, as stated in a press release by TransGlobe.

Badr El Din

In 1981, Shell discovered the Badr El Din field, an oil and gas accumulation. The Badr field is located on the edge of Qattara Depression about 300 Km west of Cairo, 90 Km south of Alamein City,

the field is adjacent to Abu Gharadig Field. The shell's first discovery in the field is Badr 1-1, which BAPETCO was formed to develop and operate, according to the WEPCO website.

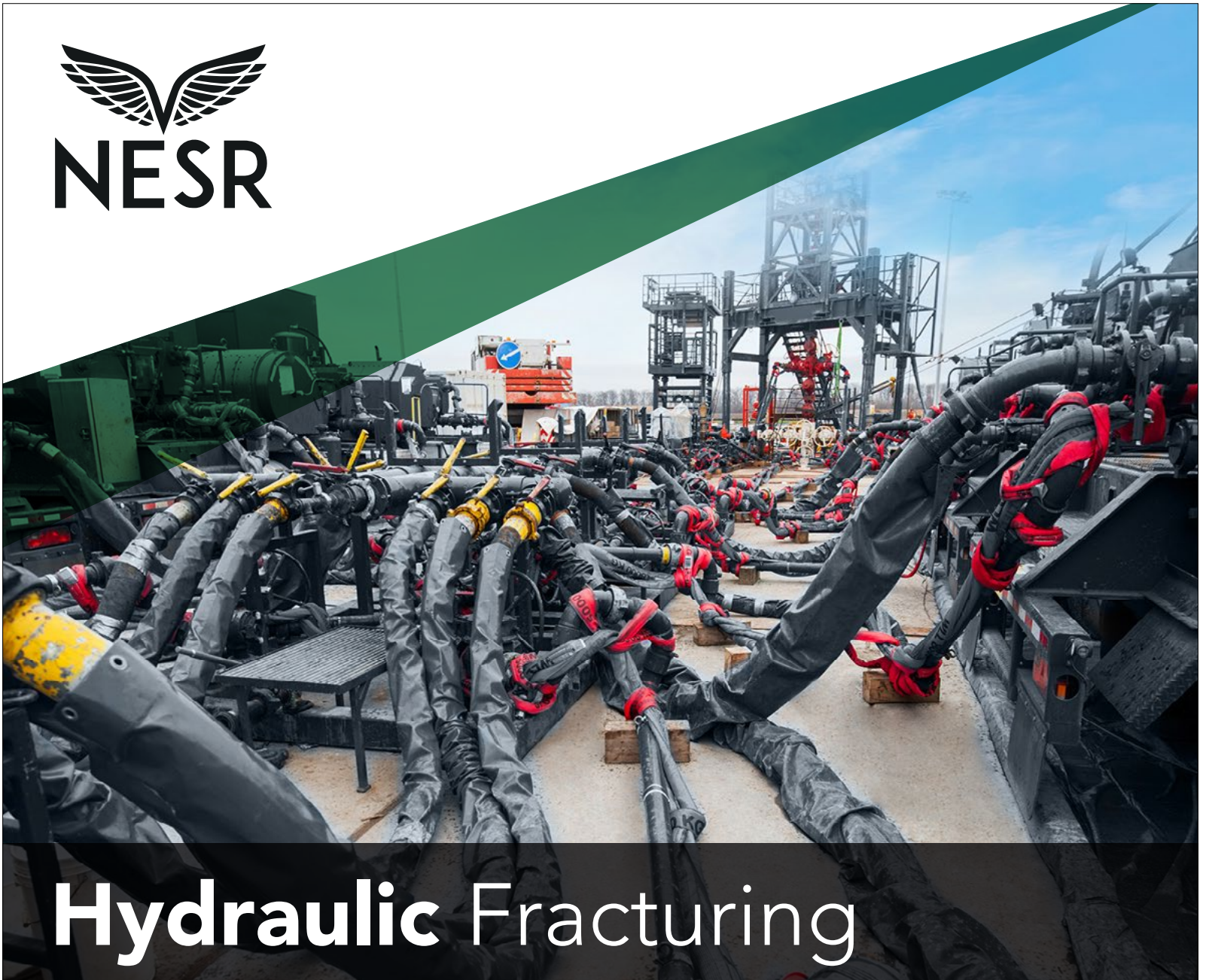
Ptah and Berenice

In 2014, Khalda discovered Ptah-1 with added reserves of 15 mmbbl of crude oil. The first field well Ptah-1X has a production rate of 2,350 bbl/d, while the second well, Ptah-3X, started production in March 2015 at a rate of 2,000 bbl/d, according to EGPC.

In Q1 2015, the Ptah and Berenice oil discoveries exceeded expectations with a production of approximately 20,000 bbl/d of oil, according to an Apache press release.

Khalda further discovered Berenice -1 in 2014 which added reserves of about 8 mmbbl of crude oil, according to EGPC. In March 2015, the total production of Berenice's three wells reached more than 9,500 bbl/d.

Egypt works progressively to make the best use of its natural resources. Accordingly, intensive efforts have been exerted to accelerate the production and efficiency of the Western Desert fields as the largest crude oil production region. The Ministry of Petroleum and Mineral Resources (MoPMR) spares no effort to achieve its strategy for petroleum production acceleration, through which the NOCs and IOCs develop ambitious action plans and programs to increase production, rationalize expenses, take advantage of all assets and capabilities available at petroleum production sites, as well as increase integration within the petroleum sector.

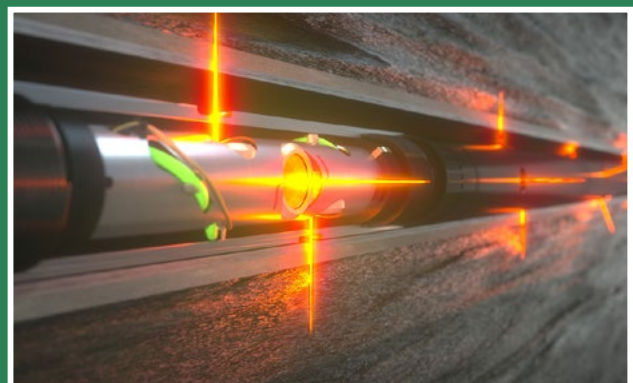


Hydraulic Fracturing

We supply engineering solutions to reservoirs that increase productivity and enhance oil and gas recovery.

We perform efficient and effective fracturing treatments using our exceptionally experienced and motivated teams.

Our diverse team provides operational efficiency, safety and optimum productivity to our clients and their wells.



www.nesr.com

A MODERNIZED REFINING, PETROCHEMICAL APPROACH

BY SARAH SAMIR

Energy management and sustainability should be present in every feature of the downstream sector in order to have a healthy economy and environmental-friendly downstream business. The Egyptian oil and gas sector has already placed decarbonization at the heart of its operations, including the downstream operation. This is reflected in refineries, transportation, and warehouses.

Enhancing Refineries and Decarbonizing Them

Egypt has been developing its refineries in the past few years. During the period from Fiscal Year (FY) 2014/15 until December 2022, the investments of the new refining projects that have been implemented, a total of 8 projects, were equivalent to EGP 87 billion.

In July 2023, the Ministry of Petroleum and Mineral Resources (MoPMR) announced implementing and accelerating new refining projects with investments of about \$7.5 billion, and their operation will be completed successively. These projects include the expansion project of the Midor refinery in Alexandria. Its first and second phases have been completed and started operating experimentally. Moreover, they include the diesel production complex at ANOPC in Assiut and the expansions of the Suez Oil Processing Company (SOPC), represented by the coking and diesel production complex. This is in addition to the condensate distillation project at the Nasr Petroleum Company in Suez; and the air distillation project at the Assiut oil refinery.

Additionally, the country runs five energy audits across refineries, petrochemicals, and upstream companies, with the aim to decrease energy consumption and reduce emissions by 15%.

Improving the Petrochemical Industry

MoPMR Modernization program is aimed at maximizing the added value of natural resources and petrochemical products

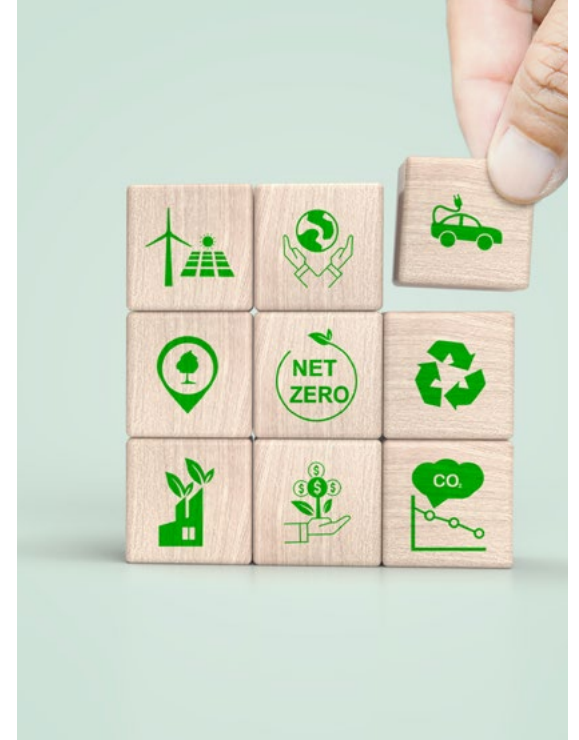
by developing the petrochemical industry. The petrochemical sector has two implemented projects with investments of \$4 billion. The sector has also three projects under construction with \$7.99 billion in investments.

The projects that were implemented to improve the petrochemical sector are the MOPCO expansion project, with \$2 billion in investments and an annual production capacity of 1.4 million tons of Uria. The project provided 5,000 job opportunities. The other project is Ethydcoc's complex, with \$2 billion investments and an annual production capacity of 460,000 tons of ethylene, 400,000 tons of polyethylene, and 26,000 tons of butadiene. The project provided 10,000 job opportunities. The local production of petrochemicals was over 4.3 million tons annually by the end of FY 2021/22, compared to 2.1 million tons in FY 2015/16.

Distribution & Retail

Egypt has been keen to enhance the petroleum transportation system and to monitor it to prevent products from getting into the black market. "In order to increase the observation and monitoring level of the petroleum products, the petroleum sector implemented the SCADA system, which collects data from smart card system, ATG system, and GPS to link and integrate between their functions to enable a complete control," MoPMR wrote on their website.

Moreover, to facilitate oil and gas trade and work on its strategy to become a regional energy hub, Egypt developed storage and transportation capacities.

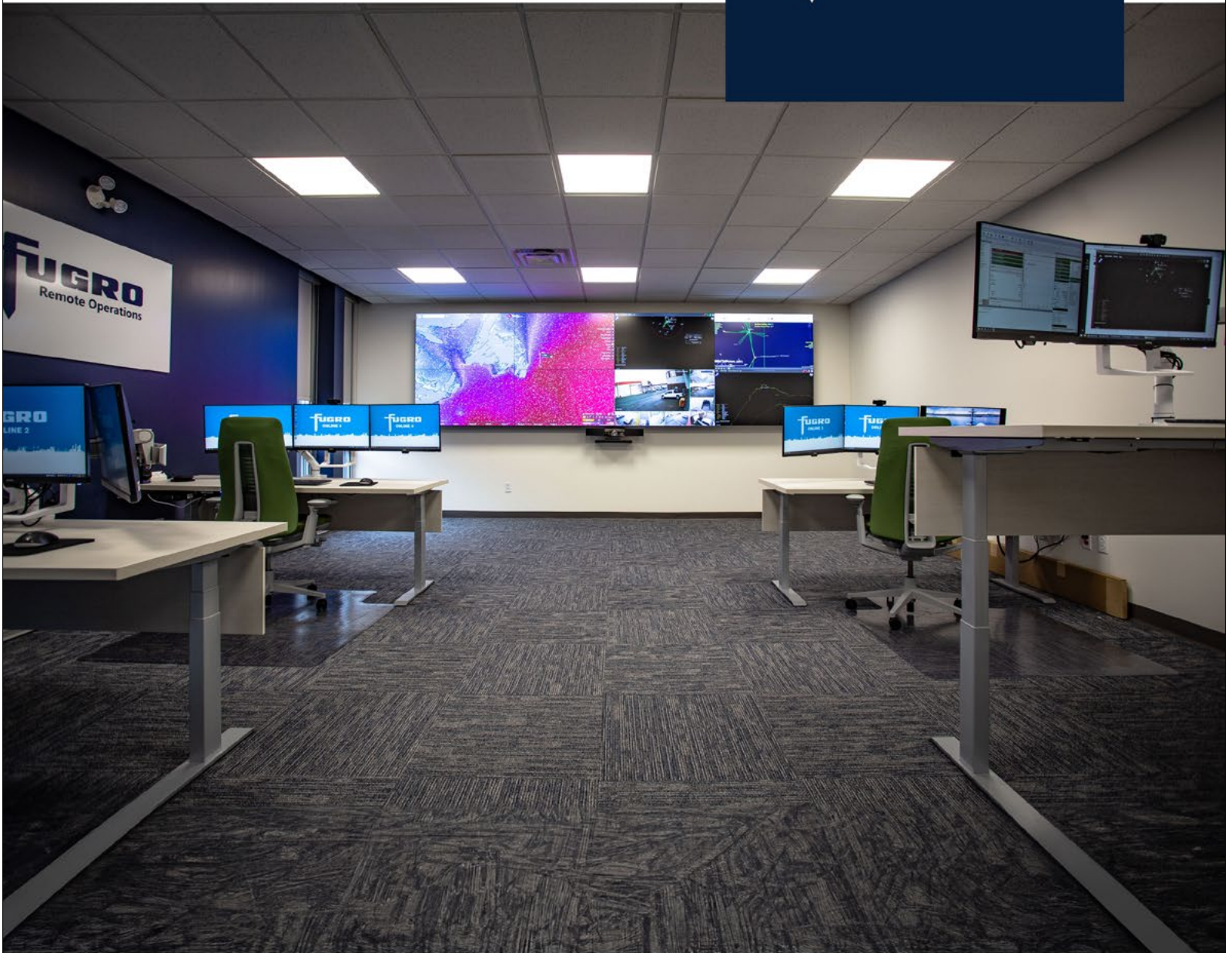


The ports' capacity has grown by 70% to 76 million tons per year in September 2022, compared to 45 million tons per annum in FY 2014/15. Moreover, the petroleum products storage capacity increased by 130% to 2.5 billion tons in September 2022, compared to 1.1 billion tons in FY 2014/15.

As Egypt develops the downstream sector, the country is creating a more sustainable sector. Moreover, the MoPMR is striving to achieve its regional strategies and enhance its oil and gas business.

Egypt has been developing its refineries in the past few years. During the period from Fiscal Year (FY) 2014/15 until December 2022, the investments of the new refining projects that have been implemented, a total of 8 projects, were equivalent to EGP 87 billion.

The country runs five energy audits across refineries, petrochemicals, and upstream companies, with the aim to decrease energy consumption and reduce emissions by 15%.

The FUGRO logo is displayed in white, bold, sans-serif capital letters on a dark blue rectangular background. The letter 'F' is stylized with a vertical bar extending downwards from its base.

FUGRO EGYPT has successfully concluded its inaugural project utilizing a fully remote processing model. The project was executed by a team of Geophysicists and Data Processors who collaborated from the Cairo Remote Operation Centre, providing continuous coverage throughout the entire project. The utilization of this methodology resulted in a reduction in risk exposure, a decrease in carbon footprint, and expedited access to data, leading to reduced decision-making times and increased operational flexibility. These benefits are indicative of the efficiency of remote processing and its potential for future projects.

WWW.FUGRO.COM

Renewable Energy Integration: THE LOW-HANGING FRUIT OF THE DOWNSTREAM SECTOR

BY RANA AL KADY

The growing expenses brought on by increasing demand for energy can be reduced by improving operational efficiency. The same is true for implementing alternative energy sources that increase product profitability while also resolving regional environmental issues and emission targets. A rising interest in incorporating renewable energy technology into oil and gas operations is being driven by this additional aspect. In many situations, incorporating renewable energy technology can also lower operating expenses because of the sharp drops in the cost of energy produced from renewable sources.

General Overview

The intricate process of refining oil necessitates huge amounts of capital expenditure and energy. Heating oil is used throughout the process of refining to dissolve carbon bonds and eliminate contaminants. The heating process and the production of steam account for over ninety percent of the energy used in refining. Burning onsite oil to process and refine petroleum accounts for the bulk of the energy required in the petroleum supply chain. Oil refineries may use renewable energy technologies to produce power, heat, and hydrogen, which is a component in the refinement procedure, as well as to run their operations. The surplus heat from oil refineries may potentially be used to create power.

Furthermore, downstream companies have taken the initiative to explore solutions to lessen their negative environmental impact while still being important energy suppliers and maintaining their competitiveness in challenging circumstances. Additionally, there is no singular quick approach that can be applied to every facility; instead, each asset or complex ought to be handled separately. All significant refiners, petrochemical, and chemical businesses should start by enhancing current operations through increased energy efficiency, dependability, and a reduction in existing emission levels from their current facilities. The Low-Hanging Fruit must be harvested first.

Potential demand can be met using the existing, scalable, and sustainable fuel technology. Operators must decide if it is preferable for them to be the front-runners or the first, quickest followers when it comes to deploying these new technologies. Each business must balance the benefits and drawbacks. It is a difficult effort for producers to reconcile protecting their

company, being competitive, and trying to shift the downstream economy into a lower-carbon one.

The Hydrogen Hype

Consequently, hydrogen is used in numerous manufacturing processes at refineries. The hydrotreatment method uses hydrogen primarily to reduce the sulfur level of diesel fuel. Due to rising diesel fuel demand and stricter sulfur content limits, refineries are now increasingly in need of hydrogen. From 2008 and 2014, the amount of hydrogen utilized in the refining process grew by more than 50%. Although hydrogen is a by-product of the catalytic reforming of petrol, there is a greater demand for hydrogen than there is availability due to the refining process.

The requirement for hydrogen in oil refineries may also be met by electrolysis fueled by renewable energy. The cost of producing hydrogen using renewable energy sources is currently greater than using traditional manufacturing techniques. Nevertheless, hydrogen production could turn into a practical way to employ renewable technology to lower expenditures and lower emissions from oil and gas operations if renewable generating prices keep dropping and if limits on greenhouse gas emissions tighten.

In conclusion, potential energy consumption and greenhouse gases from operations are probably going to increase as oil and gas production moves to less traditional and poorer quality reservoirs. Additionally, oil and gas activities require a lot of energy, which may have an adverse effect on the environment. Minimizing the usage of fossil fuels in the generation of oil and gas is possible by incorporating renewable energy technology into the operations of these



industries. This may decrease emissions, slash operating costs, and free up petroleum for higher-value purposes. In certain situations, integrating renewable energy sources might now offer a financially viable and ecologically responsible approach to satisfy operational energy needs. The advantages of renewable integration would keep growing if the price of renewable technologies kept dropping.

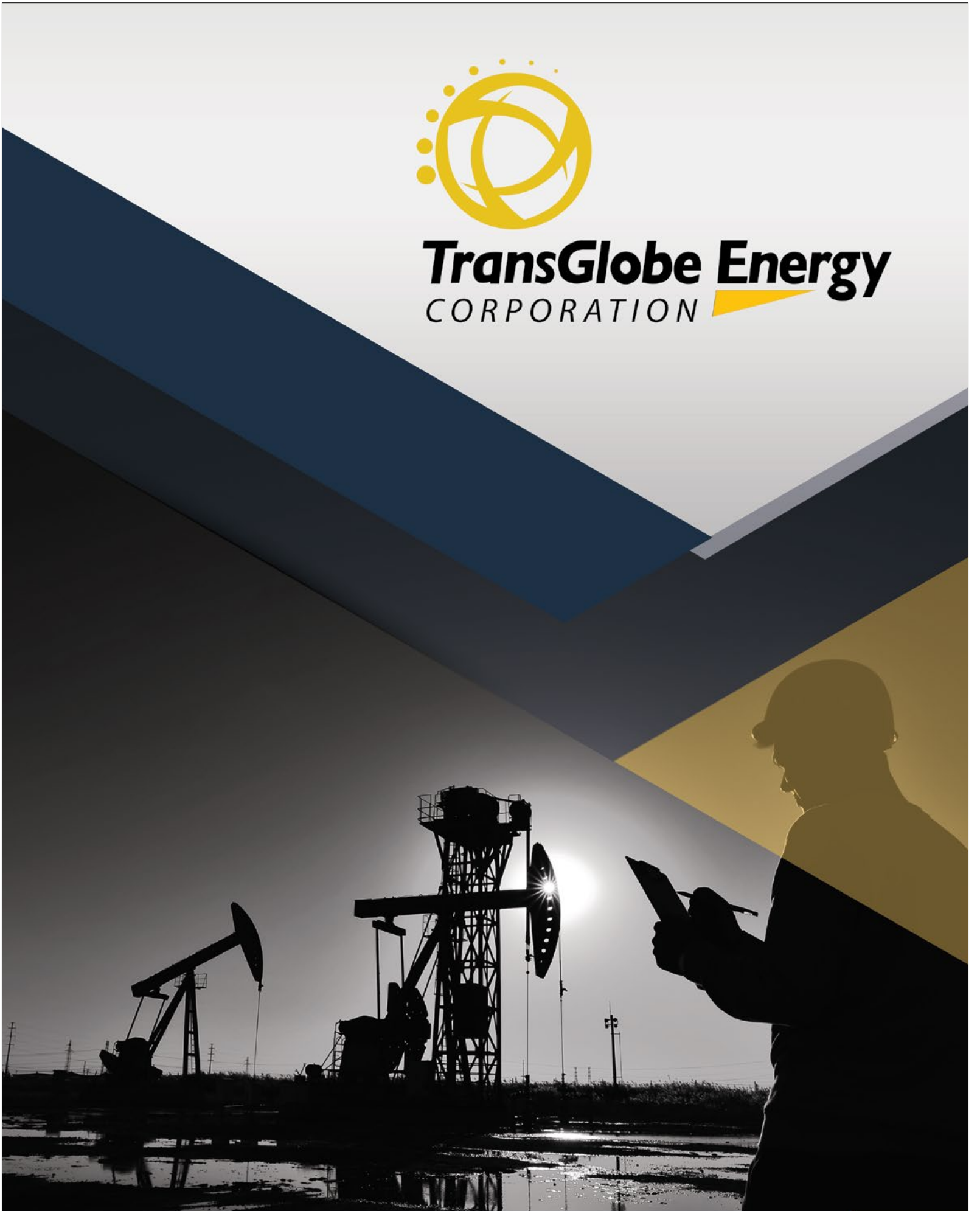
Downstream companies have taken the initiative to explore solutions to lessen their negative environmental impact while still being important energy suppliers and maintaining their competitiveness in challenging circumstances.

This may decrease emissions, slash operating costs, and free up petroleum for higher-value purposes. In certain situations, integrating renewable energy sources might now offer a financially viable and ecologically responsible approach to satisfy operational energy needs.



TransGlobe Energy

CORPORATION



GROWTH WITH ENERGY

FROM WELLHEAD TO REFINERY:

How Transportation Management Systems are Revolutionizing the Oil and Gas Industry

BY FATMA AHMED

Since the demand for oil, gas, and petroleum products becomes more urgent, operators have to find new and innovative methods for efficiently facilitating the transportation of these products. Transportation management systems (TMS) have become significant tools for oil and gas manufacturers to guarantee safe shipping, reduce costs, boost warehouse performance, and improve supply chain efficiency.

TMS in Detail

An article published by Oracle indicates that a transportation management system is a technological logistics platform that enables manufacturers, distributors, and retail businesses to plan, implement, and optimize the physical movement of goods and products and make sure that the cargo is compliant. Through the TMS, users conduct three main tasks find and compare prices and available services, book the shipment, and then track its movement to delivery, another article published by TechTarget said.

According to Markets and Markets, "the global TMS market size is expected to grow from \$13.5 billion in 2023 to \$33.3 billion by 2028, at a Compound Annual Growth Rate (CARG) of 19.7% during the forecast period".

Digitalized TMS

Several technologies have been adopted by the TMS market to be compliant with the global digitalization trend. Ascendix mentioned a number of these technologies, including Internet of Things (IoT) Fleet Tracking, Virtual Assistants, Machine Learning Algorithms, and Blockchain. Regarding IOT devices, it can increase the accuracy of the data related to vehicles' location, loading capacities, routes, and assets. With that, it enables owners to reduce fuel consumption, maintenance costs, divers' safety and reduce delay rates.

Virtual Assistants, otherwise known as 'chatbots', provide a win-win strategy for all supply chain parties. It offers several template scenarios about each shipment so that drivers or captains can request their daily schedules and customers can get answers to their questions with a single click. Additionally, machine learning plays a key role in predicting multiple supply chain data more accurately.

It can recommend alternative routes and insights. Blockchain can provide advanced security, authentication, integration, and monitoring capabilities that improve supply chain transactions.

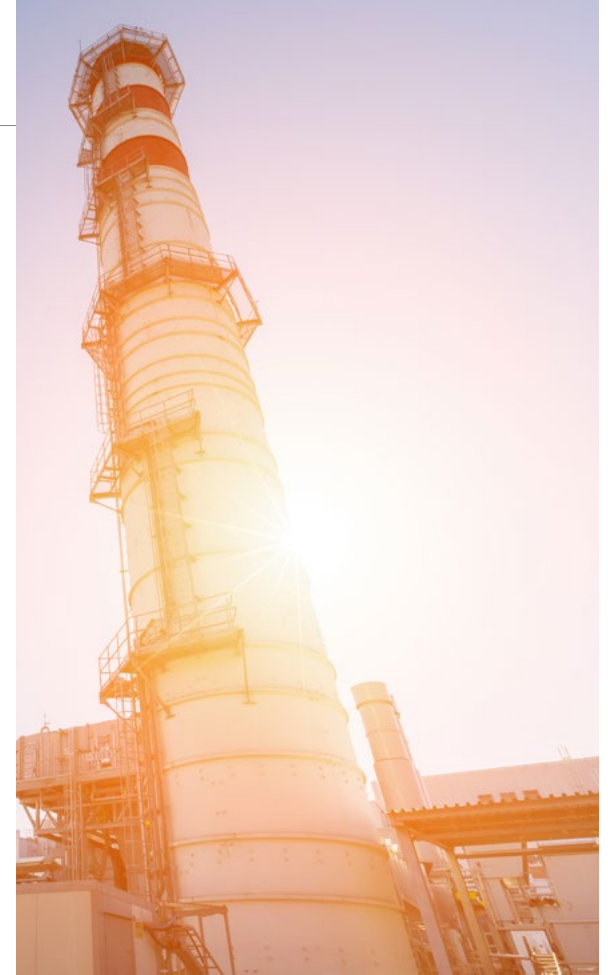
Brining TMS to Oil & Gas

Since the oil and gas industry has one of the complex supply chains, TMS is an efficient way to supply either petroleum products or equipment to their destination, and reduce costs at the same time. An article published by Cloudlogix defined three primary benefits of TMS for the oil and gas sector. First, TMS improves visibility into transportation operations. It allows employees to communicate and coordinate transportation needs as they all have access to the same data, enabling them to view transportation options and make suitable booking decisions. It also can help companies to plan better and react faster to the changes in the market.

Second, it allows better control over transportation costs. This can be done by organizing and optimizing transportation routes so as to reduce the costs of unneeded travel. Moreover, TMS improves communication between shippers, carriers, and receivers leading to faster delivery with lower costs. Third, TMS increases efficiency and coordination across modes of transport for example when TMS optimizes transportation routes; the vehicles are used more efficiently and it improves order accuracy and reduces the amount of wasted time and fuel.

TMS Solutions in Oil & Gas

There are several TMS software solutions for the petroleum industry. For example, Emerson Company developed what is called TerminalManger, which is a robust solution enabling the user to efficiently manage all



Since the oil and gas industry has one of the complex supply chains, TMS is an efficient way to supply either petroleum products or equipment to their destination and reduce costs at the same time

aspects of terminal loading operations to improve accuracy, safety, and security. It drives greater intra-terminal and inter-terminal efficiencies by automating material transfers at any type of tank storage facility.

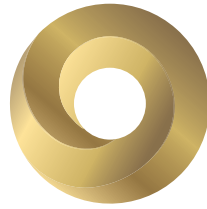
Furthermore, ABB has innovated ABB's Terminal Management System which includes features such as receipt/dispatch by truck, barge, rail wagon, pipeline, access control, inspections, kiosk functionality, automatic bay/berth allocation, sealing, blending, additive, automatic tank farm control and more.

Other applications of TMS that are used in various industries such as the Oracle Management system enable more efficient logistics operations reduce freight costs and optimize service levels. The SAP Management system is another application that can reduce transportation complexity and maximize the return on global transportation and domestic shipping across all transportation modes and industries.

In conclusion, TMS is paving the way to efficient transportation and shipping operations with lower costs within the oil and gas sector which can help in accelerating the industry's development and progress.



HELD UNDER THE PATRONAGE OF HIS EXCELLENCY ABDEL FATTAH EL SISI
PRESIDENT OF THE ARAB REPUBLIC OF EGYPT



EGYPES
EGYPT ENERGY SHOW

SUPPORTED BY



12 - 14 FEBRUARY 2024 | EGYPT INTERNATIONAL EXHIBITION CENTER

DRIVING ENERGY
**TRANSITION,
SECURITY AND
DECARBONISATION**

35,000+
INTERNATIONAL
ATTENDEES

2,200+
CONFERENCE
DELEGATES

500+
EXHIBITING
COMPANIES

300+
INFLUENTIAL
SPEAKERS

120+
PARTICIPATING
COUNTRIES

28+
NOCS, IOCS
& IECS

BOOK A STAND
egypes.com/exhibit

GET YOUR DELEGATE PASS
egypes.com/delegate

REGISTER AS A VISITOR
egypes.com/visit

SUPPORTED BY



STRATEGIC PARTNER



DIAMOND SPONSORS



ORGANISED BY



USING DEREGULATION AS A CATALYST FOR DOWNSTREAM ECONOMIC GROWTH

BY NADER RAMADAN

Deregulation has been the subject of debate between economic intellectuals on all sides of the political aisle. On one side of the spectrum, an argument can be made that deregulation of the downstream sector increases competition but gives too much control to the private sector, especially when it comes to product prices. The other side says that in order to build a healthy downstream sector, deregulation must be the foundation for creating a more flexible market. The role of regulation in this context would be to effectively ensure healthy competition. When studying various markets around the world, it is found that deregulation in the downstream economy is really the secret economic recipe strategists should be looking for in order for the sector to be performing at its full potential.

Investment attraction is one of the first and most important advantages of deregulation since it ensures that the market not only has a flexible framework to work within but also protects stability while utilizing effective policies and legislation to protect the rights of investors and stakeholders in the private downstream industry. With investment being a key component for building the infrastructure needed for the effective distribution of oil and gas products, it goes hand-in-hand with the growth of any downstream sector. "Deregulation of the downstream oil industry will attract more foreign investors, eliminate the shortage of refined petroleum products, and combat refined petroleum commodities' smuggling around the country's boundaries," it said in the study titled "Deregulation of the Downstream Petroleum Industry: An Overview of the Legal Quandaries and Proposal for Improvement in Nigeria" by Olusola Joshua Olujobi from Elizade University's Faculty of Law.

Taking a resource-rich country such as Nigeria as an example, deregulation can play an effective role in eradicating supply issues with effective implementation. "Total deregulation of downstream petroleum has the potential to shape the price increases of petroleum commodities. It will end huge revenues spent on fuel subsidies. It will enhance petroleum commodities availability in Nigeria and eradicate endless queues at filling stations for non-existent petroleum products in some parts of the country. Full price deregulation is the bedrock of any long-term reform within the downstream petroleum for transparency in the sector," Olujobi's study said. It added, "Nigeria has large petroleum product supply gaps. The lack of working refineries and heavy pressure on infrastructure from resultant importation

has been critical cause of supply shortages. Total deregulation of downstream petroleum will end petroleum commodities scarcity in Nigeria and promote effectiveness in the sector. There is room for further research to gain additional insights into different dimensions to address deregulation."

Hoarding is a typical example of the many issues that an economy faces in a highly regulated environment. With hoarding being a common practice, a free-floating price model for oil and gas will ensure competition while preventing one party from taking advantage of generous subsidies (that were originally made to benefit consumers) to buy too many quantities, thereby creating severe supply shortages. "It will put an end to the practice of hoarding fuel in the regulated economy. Foreign and local investors and marketers may invest in petroleum facilities or infrastructures such as storage tanks, pipelines, retail filling stations, petroleum pipelines, or trucks. It will lead to a healthy petroleum market, competition among petroleum marketing companies operating in Nigeria," it said in the study written by Olujobi.

With emerging economies struggling to squeeze every dollar of foreign direct investment (FDI) they can get, deregulation needs to be implemented to win over the confidence of investors, combined with policies to ensure a stable economic future. As bureaucracy gets rooted out in favor of a more efficient process, downstream economic liberalization can play an active role in ensuring that consumers have easy access to energy supplies and products. While price controls (government-imposed limits on price changes) may be a legitimate concern for investors, applying them effectively to protect consumers from



inflation will also ensure consumers have the necessary financial resources and consistent buying power to maintain an adequate level of demand for downstream companies in the market to remain profitable. In general, effective and pragmatic deregulation is about having a balanced approach in considering the needs of consumers and investors. Investors require returns and consumers need protection from price fluctuations to keep on buying. Striking that balance is what should really define sound and effective economic strategy for the years to come. With Egypt's parliament passing legislation to liberalize the economy through more flexible investment laws, these measures will definitely equip the country's downstream sector with the tools that it needs to perform to its full potential.

Investment attraction is one of the first and most important advantages of deregulation since it ensures that the market not only has a flexible framework to work within but also protects stability while utilizing effective policies and legislation to protect the rights of investors and stakeholders in the private downstream industry.

RESEARCH AND DEVELOPMENT: THE SMART WAY TO THE FUTURE

There is a dire need for new, more flexible legislation and regulations for pushing research and development in energy production technology.

Countries that have made great strides towards progress and prosperity and achieved major strides in the fields of social and economic development have not been able to achieve their desired goals without using modern science and technology. Since the energy production industry in its various types, traditional and non-traditional, is the heart of any development process, the energy industry was also one of the most essential areas that enjoyed intensive research and development activities in the energy industry and production, in order to achieve the important economic and environmental prosperity. With the tools that research and development give the country, the energy sector can achieve the desired end result of increasing overall production in an efficient, economical, and environmentally sustainable manner.

The enactment of legislation and laws that boost scientific research and push state institutions, non-governmental organizations, and companies towards developing their performance through the development of technological tools or smart administrative methods is one of the most important tools for crossing into the future. Perhaps it is also important to develop a general philosophy and policy for research and development within those institutions to ensure the commitment of the work team to implement these policies and provide a general atmosphere that supports creativity and development through accurate and systematic scientific research.

Perhaps, if we look at the policies of major international corporations that are applied everywhere, we will find that research and development is a key priority, with even more funds being allocated to research activities annually. Developing human resources within these institutions is also subject to the philosophy of research and development as one of the priorities and objectives of the work of these institutions, and even one of the criteria for success in managing the huge investments of these organizations. Accordingly, these major economic institutions around the world are sorting and evaluating their human resources according to fixed standards that ensure the continuity of human performance within the institution with high efficiency.

For major global economic institutions to ensure their continued success in achieving their goals, the application of policies for the optimal utilization of human resources is essential, as well as the development of policies and legislation that keep pace with rapid global changes. Hence, the method of dividing human resources or work teams within these major institutions into three basic categories. The first category is professional, in which work teams carry out various work

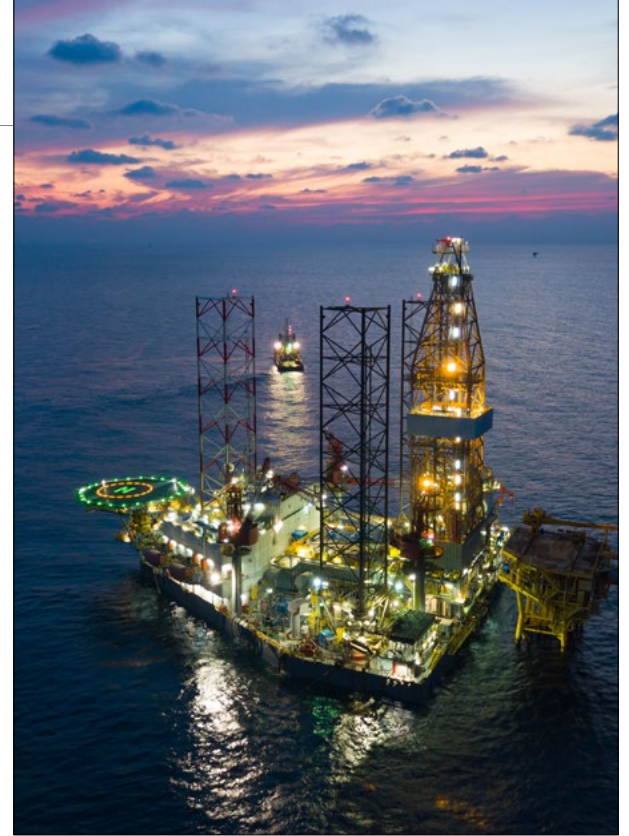
tasks with great professionalism and a high level of efficiency. The second category is a group of distinguished people in leadership methods and smart management methods; they have real talent as leaders, and they prove to be effective policy strategists and decision-makers within these institutions in the future. The third category includes a group of innovators and those with superior mental and scientific capabilities; these are the ones who carve out the future of these institutions and organizations through research and development within the framework of financial and administrative support.

To appreciate the importance of research and development for the continuity of any economic institution, it would suffice to know that the popularity of Nokia's mobile phones has declined because it did not adopt a policy that supports research and development, unlike its competitor Samsung. Major global institutions spend about 15% of their annual revenues on research and development and take great interest in the work team that carries out the development of products and services provided by these institutions and companies.

Therefore, I believe that we need to introduce a set of legislations that support research and development within economic institutions, whether governmental or non-governmental. This would entail an increase in expenditures for research and development activities within these institutions, as well as identifying appropriate mechanisms for discovering talented and creative people as well as forming research and development teams from them. They need to be given all the support they need to ensure the development of competitive products and services that will ensure survival in global markets and achieve added economic value to the national economy.

I see that the energy sector in Egypt is in dire need of such legislation and laws that derive from policies that support research and development processes, whether within the traditional energy production sector such as fossil fuels or the unconventional or clean energy production sector such as solar energy and green hydrogen energy. I also believe that it is necessary to provide full support for research and development centers within major national economic organizations to enable them to make great leaps towards development and bring about a technological breakthrough that supports economic growth.

Finally, we must realize the importance of legislative and legal development in a way that supports the economic and technological changes that are taking place in the world in recent times. I believe that legislative reform must take place in two



parallel lines, one by updating and amending old laws and legislation to be in line with the current changes worldwide, and the second, by creating new legislation and laws that are essential to support economic growth and technological progress in the country.

ENG. MOHSEN AHMED FARHAN ALI

Oil & Gas Well Drilling Specialist - Kuwait Oil Company (KOC)
Consultant - Oil & Gas Industry Trainer & Coach

Major global institutions spend about 15% of their annual revenues on research and development and take great interest in the work team that carries out the development of products and services provided by these institutions and companies.

The energy sector in Egypt is in dire need of such legislation and laws that derive from policies that support research and development processes, whether within the traditional energy production sector such as fossil fuels or the unconventional or clean energy production sector such as solar energy and green hydrogen energy.

HUAWEI'S GREEN FIELD SUMMIT

REVEALS A SMART, SUSTAINABLE VISION FOR EGYPT'S ENERGY SECTOR

Seeking to future-proof Egypt's energy sector with its latest technological innovations, Huawei has launched "Green Field Summit 2023" in cooperation with the Egyptian General Petroleum Corporation (EGPC) outlining its latest key solutions in these fields seeking to boost the oil and gas sector sustainability and efficiency.



It was attended by some of the industry's most prestigious leaders including Alaa Hagar, Undersecretary of the Ministry of Petroleum and Mineral Resources for the Technical Office, Ahmed Khalifa, Undersecretary of the Ministry of Petroleum and Mineral Resources for Planning and Projects, Khaled Salah El-Din, Chairman's Assistant for Information Technology and Digital Transformation at the Ministry of Petroleum and Mineral Resources, Iman Wafy CEO Assistant for Information Technology & Telecommunications at EGPC and other prominent leaders of major companies in the petroleum sector. It also witnessed the positive and significant participation of Charles Yang, Senior Vice President at Huawei and President of Global Marketing, Sales & Services at Huawei Digital Power.

During this remarkable gathering, the global technology leader emphasized its central role in building a greener tomorrow while ensuring economic growth through using green sources of energy and its cutting-edge solutions.

The conference addressed many topics including Huawei digital power solutions, case studies for green oil fields, how to make pipelines intelligent, how to use the data of barrels, an intelligible data center for power efficiency, and Huawei's efforts for electrification.

The day started with an insightful opening speech by Joey Deng, CEO of Digital Power Business at Huawei Egypt, in which he highlighted the country's as well as the company's efforts for energy transition.

Deng stated that "Egypt demonstrated its commitment to the carbon emission reduction by 33% in the sector of electricity and 65% in the oil and gas sector by 2023." He noted that Huawei is keen on providing new solutions which contribute to achieving oil and gas sustainability. "This could be done by improving energy efficiency and emissions reduction so that we initiated solar energy solutions and battery storage", he added.

"According to Egypt's Sustainable Energy Strategy 2035, the Egyptian government aims to generate 45% of electricity from renewable resources by 2035 which was increased from 42%. We have seen that collaboration, electrification, and intelligence are three key pillars of the energy transition," Deng stated.

He reported that his company's vision is to accelerate digital transmission of the energy sector and create a zero-carbon intelligent world. "Our solutions have generated more than 325 billion kilowatts hours of green power and reduced carbon emissions by 160 million tons."

For his part, Ahmed Ghassan, CEO Deputy Assistant for Planning and Projects at the EGPC, expressed his pleasure in attending this summit, highlighting the importance of Egypt's contribution to the global demand for green energy and digital transformation, especially through applying solar energy technologies. "The Ministry of Petroleum and Mineral Resources exploited the available capabilities to use solar energy in generating electricity within the industry during the past years which helped in reducing greenhouse gases."

Additionally, Ayman Emara CEO Deputy for Planning and Projects at the EGPC praised the role of Huawei in providing advanced technological solutions in the field of digital energy. He also emphasized the importance of exploiting solar energy in the petroleum sector to reduce carbon emissions for projects and thus improve the environmental and economic aspects and reduce costs as a result of reducing fuel consumption and reducing environmental risks.

At the end of his speech, Ghassan said that the seminar is aiming to increase the utilization of new and renewable energy in addition to applying the latest technologies for digital transformation.

Through a series of presentations done by some of the company's finest professionals, Huawei offered a detailed explanation of a wide range of advanced, cutting-edge technological solutions that will revolutionize the way Egypt's energy sector works. To suit the petroleum sector. Their smart solutions

**THE CONFERENCE
ADDRESSED MANY TOPICS
INCLUDING HUAWEI DIGITAL
POWER SOLUTIONS, CASE
STUDIES FOR GREEN OIL
FIELDS, HOW TO MAKE
PIPELINES INTELLIGENT,
HOW TO USE THE DATA OF
BARRELS, AN INTELLIGIBLE
DATA CENTER FOR
POWER EFFICIENCY, AND
HUAWEI'S EFFORTS FOR
ELECTRIFICATION.**



comprise Fusionsolar – Solar+battery storage smart photovoltaic energy solutions, which can aid companies in effectively controlling and monitoring photovoltaic solar panels in a more efficient and trouble-free manner. In introducing these smart solutions, Huawei hopes to make a profound contribution and drive innovation by boosting digitalization environmental protection, in line with the sector's Vision 2030. It is worth noting that during his opening speech, Deng himself asserted that Huawei's innovative AI and Internet of Things (IoT) technologies make Solar+Battery storage solutions easy to install, operate, and troubleshoot, all while reducing costs. This, he asserted, is how the company seeks to enable a faster and more efficient digital transformation for Egypt's energy sector.

Seeking to also further boost the quality of technologies within the Egyptian energy sector, Huawei's innovative iSitePower solutions was also one of the event's major attraction, offering a green and smart solution to provide clean energy to supply organizations through the use of advanced temperature control equipment, integrating batteries, as well as AC and DC power distribution and surge protection.

With the ever-increasing importance of having accurate, reliable data that is easily accessible and manageable, the company also used the event as a platform to promote its latest data center solutions, which represent a myriad of computer servers connected to the network. These solutions are designed to be used by companies for the purpose of effectively processing or distributing large amounts of data as well as remote storage. These innovations go hand-in-hand with Egyptian ambitions and visions for a more prosperous, digitalized, and sustainable energy sector of tomorrow.



ACCORDING TO EGYPT'S SUSTAINABLE ENERGY STRATEGY 2035, THE EGYPTIAN GOVERNMENT AIMS TO GENERATE 45% OF ELECTRICITY FROM RENEWABLE RESOURCES BY 2035 WHICH WAS INCREASED FROM 42%. WE HAVE SEEN THAT COLLABORATION, ELECTRIFICATION, AND INTELLIGENCE ARE THREE KEY PILLARS OF THE ENERGY TRANSITION,

JOEY DENG

CEO of Digital Power Business at Huawei Egypt



Belt & Road Initiative TEN YEARS ON

BY IHAB SHAARAWY

BEIJING - Visiting Xinjiang, a region located in the Northwest of China, one can be astonished by the amalgamation of diverse traditions, religions, and art forms that continue to shape the region's unique cultural identity to this day; but this can be explained as the region had served for centuries as a conduit for the exchange of goods, ideas, and people between various civilizations connected by the ancient Silk Road, a network of trade routes that connected the East and West.

However, it's also easy to spot another tremendous transformation in the economic and infrastructure scene of the city thanks to an ambitious initiative to revive the ancient Silk Road, known as the Belt and Road Initiative (BRI).

A Driving Force for Growth

This year, China marks the tenth anniversary of this ambitious, globe-spanning infrastructure development project, which was proposed by Chinese President Xi Jinping in a series of speeches in Kazakhstan and Indonesia calling for a "Silk Road Economic Belt" and a "Maritime Silk Road," respectively. The following year, China announced the creation of a \$40 billion Silk Road fund and a \$20 billion Maritime Silk Road fund.

The initiative was aimed primarily to strengthen cooperation among the countries along the ancient Silk Road routes and provide a new growth motivation to the global economy, extending it to the countries worldwide based on their willingness to promote the free flow of commodities, capital, technologies, and people.

Over the past 10 years, about 150 countries have responded positively to the initiative by signing cooperation agreements with China to jointly build the Belt and Road, while Chinese companies have invested about a trillion USD into mega infrastructural projects, including projects for building roads, railroads, ports, airports, electric power plants, and pipelines, in addition to the hundreds of industrial parks and science parks.

The initiative stands today as one of the locomotives of Chinese growth and a successful tool for building its global influence and relations with other countries.

A Shared Future for the Mankind

Economically, the BRI has bolstered China's trade and investment activities. It has created new opportunities for Chinese businesses to expand their markets abroad, enabling them to tap into previously untapped regions.

"The BRI has facilitated the construction and improvement of infrastructure, such as ports, railways, roads, and power plants, helping to reduce logistic costs and enhance connectivity between different regions.

This has led to increased trade volumes and facilitated economic integration across the participating countries," said Cang Feng, the Deputy Director-General of the Foreign Affairs Commission, the CPC Guangdong Committee. For Feng, the BRI is really about building a community with a shared future for mankind.

For Cao Saixian, Director General, Office of Foreign Affairs Work Committee of CPC Shenzhen Municipal Committee, BRI was an important driver for growth in China in general and Shenzhen in particular as Shenzhen's outbound investment along Belt and Road countries member countries saw remarkable growth in recent years.

Shenzhen, known as China's Silicon Valley and symbol of China's reform and opening up, is home to thousands of national hi-tech companies and occupies an important position in China's financial services, foreign trade, and maritime transport.

The BRI has also played a significant role in encouraging investment and fostering economic partnerships. China has set up various financial institutions and funds to support BRI projects, such as the Asian Infrastructure Investment Bank (AIIB) and the Silk Road Fund. These institutions provide financial aid, loans, and grants to participating countries, promoting investment and development. China's outbound direct investment has also increased significantly, strengthening economic ties and promoting joint ventures in various industries.

Zhang Sihong, Vice President of the China Foreign Trade Center, referred to a remarkable participation in BRI member countries in the China Import and Export Fair, also known as the Canton Fair.

"Exhibitors from these countries can leverage the fair's extensive global reach and attract potential buyers, allowing them to expand their market presence and explore new business opportunities. This not only can promote economic growth and development in the participating countries but also foster regional trade integration," said Sihong who also referred to the opportunity provided by the Canton Fair to BRI members to exchange ideas, technology, and expertise, facilitating the transfer of knowledge and encouraging innovation. "Through this exchange, countries involved in the BRI can enhance their productive capacities and develop mutually beneficial partnerships, contributing to the sustainable development and economic success of the initiative," Sihong added.

Promoting People-to-People Exchange

Feng, the Deputy Director-General of the Foreign Affairs Commission, the CPC Guangdong Committee, refers to the important social and cultural aspects of the BRI as it has promoted people-to-people exchanges and cultural integration. Increased connectivity has facilitated travel and tourism

between participating countries, enhancing cultural understanding and fostering friendships.

The BRI has promoted educational and academic exchanges, enabling students, scholars, and researchers to collaborate and learn from each other's experiences. These interactions have contributed to cultural diversity, knowledge sharing, and the mutual enrichment of participating societies.

Additionally, the BRI has supported social development through poverty alleviation efforts. Many projects under the BRI focus on infrastructure development in underdeveloped regions, providing better access to education, healthcare, and other essential services. This has helped uplift local communities, improving their living standards and creating employment opportunities.

Chinese officials have repeatedly stressed the importance of Egypt as an important part of the initiative, but at the same time Egypt sees the initiative objectives are consistent with its vision for 2030 and its efforts to launch a number of megaprojects that achieve high returns and create diversified investment opportunities; foremost of which is the Suez Canal Development Center.

During the last ten years, BRI has also faced challenges and criticisms. However, the initiative has remained an essential driver of economic and social development within China, facilitating regional cooperation, and forging stronger connections with the rest of the world.

Over the past 10 years, about 150 countries have responded positively to the initiative by signing cooperation agreements with China to jointly build the Belt and Road, while Chinese companies have invested about a trillion USD into mega infrastructural projects, including projects for building roads, railroads, ports, airports, electric power plants, and pipelines, in addition to the hundreds of industrial parks and science parks.



EGYPT'S NATURAL GAS EXPORTS TO TURKEY HIT THE TOP

Recent official data has revealed that Turkey was among the top 10 countries importing Egyptian natural gas during the first four months of this year.

According to the Central Agency for Public Mobilization and Statistics (CAPMAS), Egypt's natural gas exports from January to April of this year were estimated at \$2.633 billion. Turkey ranked first among importers of Egyptian natural gas with a value of \$722.67 million, followed by Greece in second place with a value of \$253.1 million, and then South Korea in third place with a value of \$240.7 million.

Egypt is one of the largest suppliers of gas to Turkey, which has a growing demand for natural gas for power generation, industry, and residential use. Egypt's natural gas exports to Turkey have been an important part of the country's strategy to increase its gas production and exports in recent years.

Egypt currently exports natural gas to Turkey through the Arab Gas Pipeline, which runs from Egypt to Jordan, Syria, Lebanon, and finally Turkey. The Arab Gas Pipeline has a total capacity of around 10 billion cubic meters of gas per year.

In addition to the Arab Gas Pipeline, there have been discussions about the possibility of constructing a direct undersea pipeline between Egypt and Turkey, which would provide a more direct and efficient route for gas exports. Such a pipeline would likely require significant investment and long-term commitments from both countries and international investors, but it could offer a more reliable and cost-effective means of exporting gas.

The proposed pipeline would run from Egypt's northern coast to Turkey's western coast and would have a capacity of up to 15 billion cubic meters of gas per year.

Egypt is looking to increase its gas exports to Turkey and other regional markets in the coming years as it seeks to monetize its large offshore gas reserves in the Mediterranean. The country has large offshore gas reserves in the Mediterranean, including the Zohr gas field, which is one of the largest gas fields in the world.

Egypt is also looking to diversify its gas export markets, with plans to export gas to Europe through pipelines and liquefied natural gas (LNG) terminals.

To support its gas export ambitions, Egypt has been investing in infrastructure projects, including new pipelines and gas processing facilities.

The country is also promoting investment in its gas sector by offering incentives to international oil and gas companies to explore and develop new gas fields. The country's large offshore gas reserves have attracted significant investment from international oil and gas companies, and Egypt is now one of the largest producers of natural gas in the region.

Egypt is also exploring the possibility of exporting gas to Europe through a new pipeline that would run from Cyprus to Greece and then on to Italy. The pipeline would connect with existing pipelines in Europe, providing a new source of natural gas for the continent.

One of the most important steps Egypt has taken towards achieving this target is establishing the East Mediterranean Gas Forum (EMGF), a regional initiative that aims to promote cooperation and collaboration among gas-producing countries in the Eastern Mediterranean.

Overall, Egypt's plans to increase its gas exports are part of a broader strategy to monetize its natural resources and promote economic growth. The country's expanding gas sector is expected to create new jobs and investment opportunities and could help position Egypt as a major player in the global energy market, which reinforces Egypt's ability to become a regional energy hub.

Geo. Mohamed Gamal Salah, M.Sc.

Petrophysicist, GUPCO

PROMISING SOLUTIONS TO LIGHTEN OUR LOAD ON THE ELECTRICAL GRID

Electricity has had a profound impact on human civilization, allowing us to access and use energy more efficiently and in ways previously unimaginable. Electricity allows us to run machines, operate appliances, light our homes, and even travel long distances.

Moreover, today electricity has revolutionized the way people live and is arguably the most important source of energy in modern society. It has changed how people communicate, how they produce and consume goods and services, how they travel and work and much more. In short, electricity has played an essential role in making our lives easier, faster, and more convenient.

With the increasing severity of the climate and the rise in temperature, electricity consumption has increased, which has affected electrical grids and their fuel consumption.

When temperatures skyrocket, the consumption of electricity far exceeds production, which forces the relevant authorities to take measures to close this gap.

Every crisis has solutions, but it's better to search for more effective and faster implementation proposals to avoid the state of confusion that appears during such crises.

In this article, we review some proposals/recommendations that help in solving the electricity outage crisis and reduce electricity consumption as follows:

- 1- Continue plans to increase production from renewable resources to increase the green energy percentage in the energy mixture.
- 2- Increasing the governance of the electricity network regulators over consumers to control the market and calculate the actual consumption to avoid the consumption of unmonitored electricity, which reduces the actual consumption of electricity.
- 3- Regularly and systematically reviewing the efficiency of all power stations to reduce energy waste in each of them.
- 4- Creating an artificial intelligence system that includes all data and information about consumers and consumption for each region and each sector, which helps in making the decision to cut off electricity at times and places that do not affect the citizen's livelihood or economic activities.
- 5- Increasing people's awareness of the importance of electricity consumption rationalization to avoid losing our natural resources at a faster time.
- 6- Conducting an energy assessment for each company and each institution that explains all the activities used and the plan of each institution to reduce consumption throughout the year. Those plans should be reviewed regularly and a monthly and annual report should be issued on the energy efficiency of each institution.

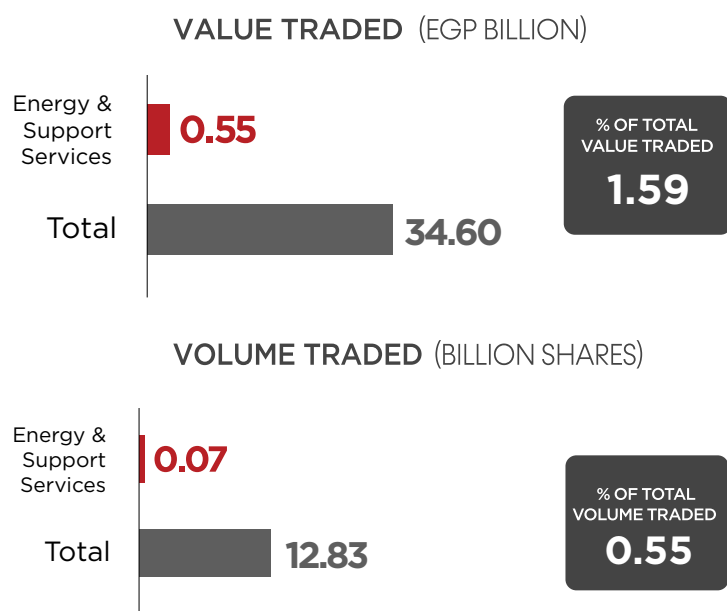
Certainly, every individual needs a complete energy plan to rationalize his/her consumption to be able to evaluate the consumption of all his/her activities. This is a habit that needs to be adapted from the level of an ordinary citizen to the largest consuming institution.

Mohamed Atia

Process Engineer at Egyptian Refining Company (ERC)



01 VALUE AND VOLUME OF SHARES TRADED FOR ENERGY & SUPPORT SERVICES SECTOR IN JULY 2023

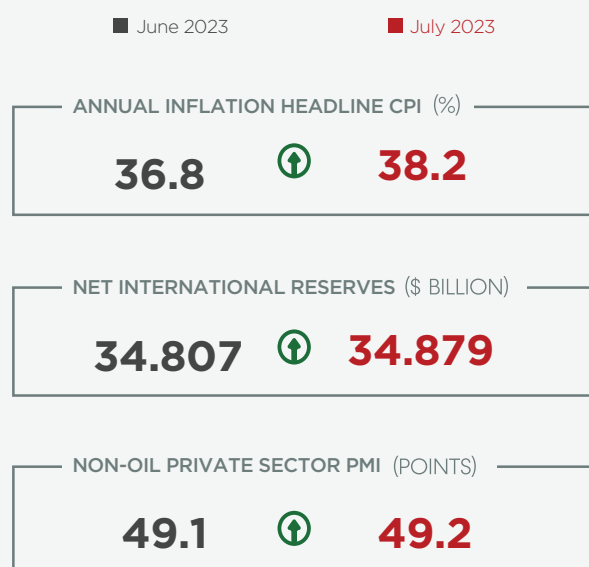


02 PERFORMANCE OF PETROLEUM COMPANIES IN THE EGYPTIAN EXCHANGE IN JULY 2023

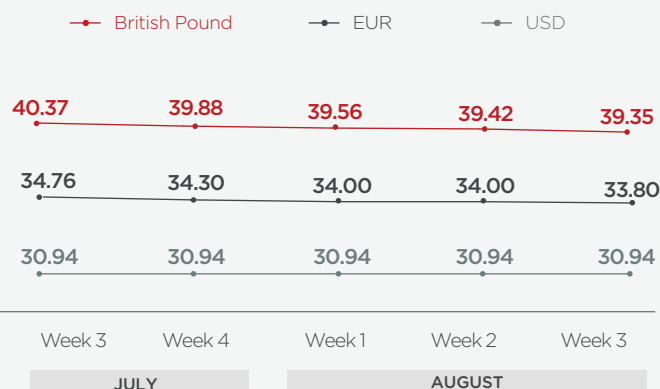
Taqa Arabia	
EGP 9.49 Close Price	↑ 1,798% YTD Price Change
National Drilling	
USD 4.69 Close Price	0% YTD Price Change
Alexandria Mineral Oils Company	
EGP 8.87 Close Price	↑ 40.35% YTD Price Change
Egypt Gas	
EGP 30.14 Close Price	↓ 18.98% YTD Price Change
Sidi Kerir Petrochemicals	
EGP 22.7 Close Price	↑ 73.02% YTD Price Change

Source of Raw Data: CBE, CAPMAS, Egyptian Exchange, PMI by S&P Global

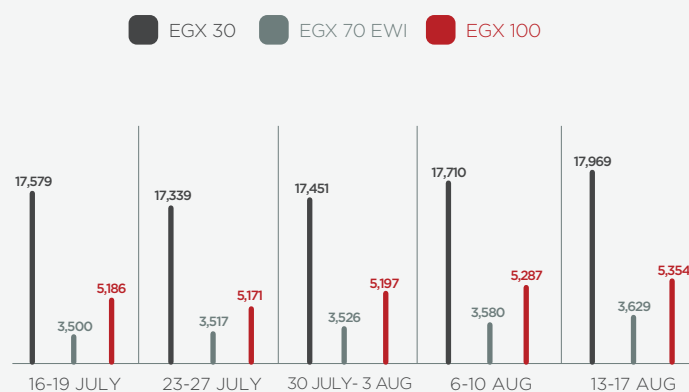
03 MAIN ECONOMIC INDICATORS



04 EXCHANGE RATES



05 CAPITAL MARKET INDICATORS



01 EGPC BROWNFIELDS BID ROUND IS OFFICIALLY CLOSED



02 CABINET APPROVED 3 DRAFT OIL & GAS AGREEMENTS

Partners

EGAS, EGPC & Number of IOCs

No. of Wells

13+

Investments

\$319.5 million

*Announcement Date: July 2023

03 EXPANDING AL- HAMRA PORT'S STORAGE CAPACITY



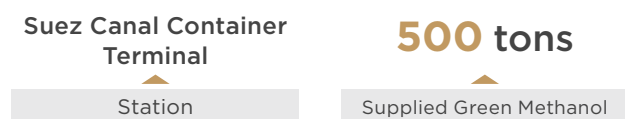
PROJECT'S 2 PHASES

	The 1 st	The 2 nd
No. of Warehouses	4	4
Capacity per Warehouse (bbl)	630,000	
Expected Ports' Storage Capacity (mmbbl)	5.3	5

04 EGYPT WELCOMED THE 1ST GREEN FUEL CONTAINER SHIP IN AFRICA AND THE MIDDLE EAST*

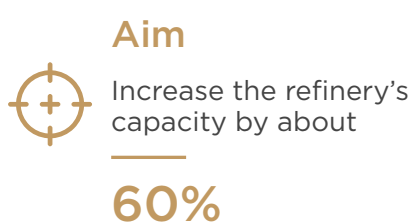
The Hub	East Port Said
Taking-off Point	Asia
Destination	Europe

SUEZ CANAL'S SUCCESS IN FUELING THE SHIP



*Announcement Date: August 2023

05 INAUGURATION OF PHASE 3 OF MIDOR EXPANSION PROJECT



PRODUCTION UNITS



06 INTERNATIONAL OIL PRICES

	BRENT PRICES (\$/BBL)	OPEC BASKET PRICES (\$/BBL)	NATURAL GAS PRICES (\$/MMBTU)
07 June	76.95	76.03	2.329
27 June	72.26	75.15	2.763
07 July	78.47	78.43	2.582
31 July	85.56	86.45	2.638
2 August	83.2	86.69	2.477
17 August	84.12	86.17	2.621



UNDER THE HIGH PATRONAGE OF **H.E. TAREK EL MOLLA**
 MINISTER OF PETROLEUM & MINERAL RESOURCES - ARAB REPUBLIC OF EGYPT



NINETH EOGC '23

EGYPT OIL & GAS CONVENTION

5-7 November, 2023

PART OF
**THE MODERNIZATION
 PROGRAM**

Driving sustainable
 Growth in Egypt's Oil
 and Gas Industry

ORGANIZED BY



TECHNICALLY PREPARED BY



OFFICIAL RESEARCH PARTNER



SUPPORTING ORGANIZATION



PLATINUM SPONSORS



GOLD SPONSORS



SILVER SPONSORS



ROUNDTABLE SPONSOR



OPERATIONAL EXCELLENCE
 AWARDS SPONSOR



TECHNICAL WORKSHOP
 SPONSOR



STRATEGIC PANELS SPONSOR



DELEGATE BAG
 & NAME TAG SPONSOR



HEALTH & SAFETY
 SPONSOR



LUNCH SPONSOR



COCKTAIL RECEPTION
 SPONSOR



FOR MORE INFORMATION, PLEASE VISIT OUR WEBSITE AT:
CONVENTION.EGYPTOIL-GAS.COM

