



EGYPT



RAMADAN KAREEM

OIL & GAS

NEWSPAPER

Wintershall Dea Champions Women's Inclusion, Empowerment



wintershall dea



EDITOR'S LETTER

Dear Reader,

On International Women's Day, women around the world celebrate their social, economic, cultural, and political achievements while also marking a call to action for accelerating gender parity. It is a day for people around the world to recognize the contributions and accomplishments of women.

In the oil and gas sector, we have many interesting stories to tell about amazing women who contribute to the success of our sector. It's also an occasion to highlight the great efforts exerted by wise leadership who encouraged diversity in the workplace within the sector.

The EOG team has taken the opportunity to celebrate women in the industry, highlighting some of the achievements and efforts towards women's inclusion. We were happy to conduct an interesting interview with Wintershall Dea's team members, who highlighted the efforts of their company that led it to champion women's inclusion and empowerment in the sector. We also had the chance to speak to one of the energy sector's woman pioneers, Iman Hill, CEO of the International Association of Oil & Gas Producers (IOGP), who reflected on the energy sector's future and the role of women moving forward.

In the economic section, we elaborated on new chances allowed by energy transition to women, while the political section highlights the role of women in facing the effects of political conflicts around the world. The Industry Insight section is showcasing some of the IOCs' strategies for encouraging gender diversity in their workplace.

We also offer informative coverage for EGYPS 2023 most important events, while our Research and analysis department is offering an interesting analysis on Egypt's Road to Net Zero Carbon.

In the end, the EOG team has a special message for all women in the sector: "You are all amazing women and deserve to be celebrated. Wishing you a very Happy Women's Day!"

IHAB SHAARAWY

Managing Editor

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TOP 5

PRESIDENT SISI INAUGURATES EGYPS 2023

President Abdel Fattah El Sisi inaugurated the sixth edition of the Egypt Petroleum Show (EGYPS 2023), which was held under the theme “North Africa and The Mediterranean: Supporting Sustainable Global Energy Supply and Demand”, the ministry said in a statement.

The inauguration took place in the presence of high-level energy and petroleum ministers from a number of countries around the world, secretaries-general of regional and international energy organizations, and heads of international energy, oil, and gas corporations, who participated in EGYPS as a leading regional energy conference.

EGYPT, JORDAN SIGN NATURAL GAS FACILITY AGREEMENT

Minister of Petroleum and Mineral Resources Tarek El Molla and his Jordanian counterpart Saleh Al-Kharabsheh witnessed the signing of an agreement for the provision of natural gas delivery facilities to the industrial city of Quweira in Aqaba, Jordan.

The signing took place in the presence of Nayef Al-Fayez, head of the Aqaba Special Economic Authority, the Egyptian Ministry of Petroleum and Mineral Resources said in a statement.

It was signed by Fouad Rashad, CEO of the Jordanian-Egyptian Fajr Natural Gas

El Molla also previously chaired the third meeting of the Supreme Organizing Committee of EGYPS 2023 in the presence of members of the Executive Committee, which included heads of local and international oil companies that sponsored the conference and officials from the organizer dmg events.

El Molla stated that El Sisi’s keenness to attend and open the conference comes within the framework of the priority he gives to the energy sector, especially since the oil and gas sector has succeeded in realizing the state’s ambitions to turn Egypt into a regional hub for energy circulation and trade.

Company, and Hussein Al-Safadi, CEO of the Aqaba Development Company.

This signing followed a meeting between the two ministers during which they discussed the strategies that have been put in place to secure the provision and diversification of energy sources between the two countries in accordance with the mechanisms that maintain energy security in both countries. It also tackled the plans and strategies of the two governments in dealing with natural gas development projects.

EGYPT, ROMANIA SIGN NATURAL GAS TRANSPORTATION MOU

Prime Minister Mostafa Madbouly and his Romanian counterpart Nicolae Chucu witnessed the signing of a memorandum of understanding (MoU) between the Egyptian Natural Gas Company (EGAS) and Transgaz, the official operator of the natural gas transportation network in Romania, to enhance joint cooperation in the field of natural gas transportation, the Cabinet announced.

The MoU was signed by EGAS Chairman Magdy Galal and General Manager of Romania’s Transgaz Ion Sterian.

Under the MoU, joint working groups will be formed to discuss issues including European laws, gas market regulations, reforms in the energy sector, and natural gas pricing, Galal noted.

Additionally, Galal said that the MoU signing with Transgaz aims to deepen cooperation between Egypt and Romania in projects to develop the infrastructure for transporting natural gas, as well as to exchange knowledge, skills and technical expertise.

EGYPT, HUNGARY HOLD BILATERAL TALKS ON ENERGY MOU AT EGYPS 2023

Minister of Petroleum and Mineral Resources Tarek El Molla has met with the Hungarian Deputy State Secretary for Energy Security Dora Zombori to discuss a memorandum of understanding (MoU) that was signed between the two countries and its renewal.

This came on the sidelines of the Egypt Petroleum Show Exhibition and Conference (EGYPS) 2023.

During their meeting, El Molla presented a number of energy transition efforts in Egypt, the latest developments related to the use of green hydrogen, and the role of natural gas in the energy transition.

For her part, Zombori expressed her happiness for participating in EGYPS and being a speaker at one of its panel discussions. Also, she affirmed her support for Egypt’s ambitions to become a regional hub for trading oil and gas as well as its contribution to meeting Europe’s needs for natural gas.

EGPC LAUNCHES INTERNATIONAL BID ROUND FOR BROWNFIELDS IN GULF OF SUEZ, EASTERN DESERT

Minister of Petroleum and Mineral Resources Tarek El-Molla announced that the Egyptian General Petroleum Corporation (EGPC) has launched the first international bid round of its kind for the development of brownfields through the Egypt Upstream Gateway (EUG).

The bid round includes eight producing fields in the Gulf of Suez and the Eastern Desert. Two of the fields are under the supervision of the Suez Oil Company (SUOC) and five are being supervised by the Offshore Shukheir Oil Company (OSOCO). There is also one brownfield within the Eastern Desert’s Wadi El Sahl Development Area.

The minister elaborated that this bid round was done for the first time after studies confirmed that there are quantities of crude oil within these brownfields. He highlighted the interest of the petroleum sector in attracting research, production and service companies to conduct their activities in these fields by deploying the latest technologies.

A BLAST FROM THE PAST

In March 1972, Egypt joined the Organization of Arab Petroleum Exporting Countries (OAPEC).

Following 1967, there was an oil embargo in response to the Six Day war, the third Arab-Israeli war. Aiming to separate the production and oil sales from politics, Kuwait, Libya, and Saudi Arabia agreed to establish the Organization of Arab Petroleum Exporting Countries (OAPEC) at a conference in Beirut, Lebanon, on January 9, 1968. OAPEC started as an economic entity to promote regional unity and independence after the establishment of the League of Arab States in 1945.

OAPEC was initially planned to be exclusively for countries whose main export was oil, but this policy was seen as harsh by the governments of countries like Egypt and Algeria.


However, by early 1972, OAPEC’s admission standards for prospective member states had changed from countries whose “principal” source of revenue is oil to countries whose “significant” source of revenue is oil.

Due to this amendment, Egypt, Algeria, Iraq, and Syria were admitted into OAPEC, and hence the organization evolved into a considerably more active body than originally intended.

OAPEC had played a major role in the October 6th War, as it decided to cut oil production by 5% monthly “until the Israeli forces are completely evacuated from all the Arab territories occupied in the June 1967 war”.

Egypt left OAPEC in 1979 after joining the Camp David Accords, but was readmitted later.

32.6%



Increase in Natural Gas Production during 8 Years

During the past eight years, Egypt has worked on a road map that enables it to build and develop its capabilities, infrastructure, and explorations in the energy sector within its integrated and sustainable energy strategy 2035. Egypt also focused on providing an attractive environment to invest in natural gas exploration projects.

Egypt has moved from an electricity deficit and natural gas importing country to a nation that has had historical boom and is now considered a regional energy hub. Natural gas production records an increase in fiscal year (FY) 2021/22 to reach 69.2 billion cubic meter (bcm) compared to 52.2 bcm in FY 2013/14. Moreover, the oil and gas sector has recorded a growth of 1.7% in FY 2021/22, according to Ministry of Petroleum and Mineral Resources (MOPMR).

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DISCUSSIONS

EL MOLLA, IRISH AMBASSADOR DISCUSS COOPERATION OPPORTUNITIES IN ENERGY ACTIVITIES

Tarek El-Molla, Minister of Petroleum and Mineral Resources, met with Nola O'Brien, Ireland's Ambassador in Cairo, to discuss cooperation between Egypt and Ireland in the fields of oil, gas and renewable energy, and investments.

During the meeting, El-Molla stressed the continuation of the ministry's strategy to create an attractive climate for foreign investment in various petroleum activities, pointing out that the petroleum sector still has many investment

opportunities in research, exploration, refining and petrochemical activities, in addition to digital transformation projects and emissions reduction.

For her part, the Irish ambassador praised the success of EGYPS 2023, adding that her country is looking forward to strengthening cooperation with Egypt in the field of natural gas, energy transition and reducing carbon emissions.



EL MOLLA, EL-WAZIR DISCUSS PETROLEUM SUPPLY, CIRCULATION

Tarek El-Molla, Minister of Petroleum and Mineral Resources, and Kamel El-Wazir, Minister of Transportation, held a meeting to discuss and support the joint work between the two ministries on many common issues, such as supplying petroleum products to the Ministry of Transportation's agencies and companies and developing the specialized petroleum ports, which is underway to develop and raise their efficiency.

El-Molla stressed that the meeting comes within the framework of joint coordination between

the two ministries, which provides a clear model and example that should be applied between all ministries. El Molla Pointed out that the MoPMR is working to develop and raise the efficiency of its specialized petroleum ports, taking into account safety and environmental standards, within the framework of developing infrastructure within Egypt's aim to be a regional center for oil and gas trade and circulation.

El-Wazir thanked the MoPMR's team for their efforts in the cooperation between the two ministries, referring to the future projects



regarding seaport expansions within the framework of developing its capabilities as a logistic center for transportation and circulation.

EL MOLLA, APACHE CEO DISCUSS LATEST E&P DEVELOPMENTS AT EGYPS 2023

On the sidelines of Egypt Petroleum Show Exhibition and Conference (EGYPS) 2023, the Minister of Petroleum and Mineral Resources Tarek El Molla has met with Apache Corporation CEO John Christmann and the Vice President and General Manager of Apache Egypt David Chi to discuss the latest developments of its business and exploration activities in its concessions in Egypt.

El Molla affirmed the Apache's commitment to the hard work and implementation of its exploration and discovery plans as an important partner to the Egyptian petroleum sector.

Also, he said that the ministry does not hesitate to support serious investment plans and overcome obstacles to achieve more success,

especially as this contributes to the ministry's efforts to ramp up production.

For his part, Christmann said that he is optimistic about the success of the plan set for the next two years, noting that Apache sees good opportunities in Egypt as it operates in a stable environment and that it enjoys great trust and good mutual relations with Egypt.

CERAWEEK

EGYPT, CHEVRON DISCUSS WAYS TO SUPPORT E&P COOPERATION

On the sidelines of his participation in CERAWeek, Tarek El Molla, Minister of Petroleum and Mineral Resources, met with Mike Wirth, Chairman and CEO of Chevron, the ministry said in a statement.

The meeting discussed ways to support and increase joint cooperation between the two

sides. The two leaders reviewed Chevron's activities in the fields of research, exploration and production (E&P), and its plans to increase production in the company's concession areas, as well as ways to support efforts to develop petroleum resources, marketing activities and increase oil exports.

During the meeting, El Molla and Wirth discussed ways of accelerating the development of new discoveries and the transfer of gas from the eastern Mediterranean fields to be re-exported to Europe through Egyptian liquefaction facilities.



in an optimal manner, especially in all aspects of the gas industry.

El Molla said during the session that Egypt provides all aspects of support for these efforts, and stressed the importance of implementing the recommendations reached.

EL MOLLA ATTENDS SESSION ON EMGF AT CERAWEEK

Minister of Petroleum and Mineral Resources, Tarek El Molla, witnessed a discussion session within the activities of the CERAWeek Conference, entitled "Eastern Mediterranean Gas Forum: Facing the Challenges of Reducing Emissions in all Aspects of the Gas Industry, a Study on the Eastern Mediterranean Region," the ministry said in a statement.

The session was attended by Osama Mobarez, Secretary-General of the Eastern Mediterranean

Gas Forum (EMGF), Karim El-Dessouky, Vice President of Bechtel and the company's director in Egypt, and representatives of the international Standard & Poor's (S&P) group.

The session witnessed a discussion of the initiative launched by the EMGF to reduce emissions in the Eastern Mediterranean region, challenges, opportunities and practical steps that can be taken to reduce countries' emissions

EGYPT, WB DISCUSS EMISSIONS REDUCTION INITIATIVES

Minister of Petroleum and Mineral Resources, Tarek El Molla, met with Demetrios Papathanasiou, the Global Director for the World Bank (WB)'s Energy and Extractives Global Practice, in the presence of Osama Mobarez, Secretary General of the Eastern Mediterranean Gas Forum (EMGF), on the sidelines of CERAWeek, the ministry said in a statement.

During the meeting, they discussed the regional activities currently being implemented in the Eastern Mediterranean region, and efforts to transform energy, reduce emissions, and

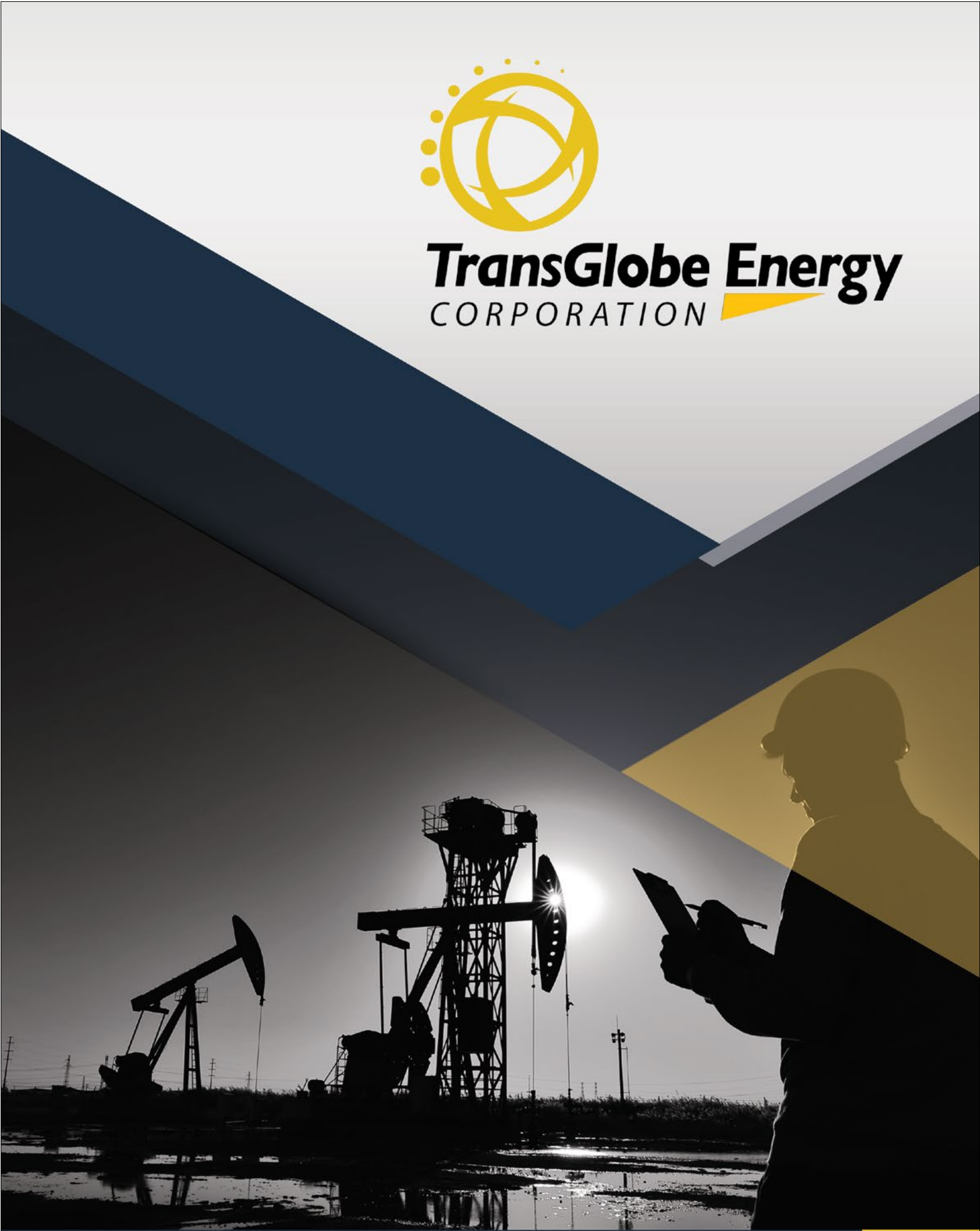

achieve maximum utilization of gas resources in the region.

During the meeting, El Molla reviewed the efforts made by Egypt to maximize the benefits from production, coordination and integration with the countries of the Eastern Mediterranean region, in addition to the climate action efforts and emissions reduction that are currently being implemented in Egypt and on the regional level as well.

The meeting further reviewed the importance of close cooperation between the EMGF and the

WB in implementing its efforts and initiatives, and the importance of continuing this support, especially in implementing its long-term strategy.

Papathanasiou affirmed the bank's support for the efforts made by Egypt and the forum in various fields, especially in the field of energy transition and environmental preservation activities, pointing out the bank's readiness to provide all aspects of support for mining activity in Egypt.



GROWTH WITH ENERGY

SHELL

SHELL FULLY ACQUIRES EUROPE'S LARGEST RENEWABLE NATURAL GAS PRODUCER

Shell Petroleum NV, a fully-owned subsidiary of Shell plc (Shell), has acquired all the shares of Natural Energy Biogas A/S (Nature Energy).

By completing this transaction, Shell has become the owner of the largest producer of renewable natural gas (RNG) in Europe, its pipeline of growth projects and its in-house expertise in the design,

construction, and operation of innovative and differentiated RNG plant technology.

This purchasing goes parallel with Shell's goals of integrating the RNG value chain on a global scale and expanding its low-carbon products to clients in a variety of industries profitably.

Being a cash-generating company, Natural Energy is anticipated to provide double-digit returns to Shell's earnings after the acquisition. With Shell's unparalleled client connections and worldwide reach in its trading and supply chain positions, it will create additional value.



ADNOC

ADNOC SUCCESSFULLY COMPLETES THE FIRST LNG SHIPMENT TO GERMANY

ADNOC and RWE Aktiengesellschaft (RWE) jointly declared that the first shipment of liquefied natural gas (LNG) from Abu Dhabi in the UAE to the Elbehafen floating LNG terminal in Brunsbüttel, Germany, was successfully delivered.

The shipment of 137,000 cubic meters of LNG, which was produced by ADNOC Gas at Das Island in Abu Dhabi, is the first LNG cargo ever

to be sent to Germany from the Middle East and serves as the commissioning cargo for the new floating LNG terminal in Brunsbüttel.

A ceremonial event was held in Brunsbüttel to mark the successful delivery of LNG cargo. The event was attended by Ahmed Alattar, UAE Ambassador to the Federal Republic of Germany; Alexander Lücke, Deputy Director General for

Energy Security, German Ministry of Economic Affairs and Climate Action; Joschka Knuth, State Secretary in the Schleswig-Holstein Ministry of Energy Transition, Climate Protection, Environment and Nature; Ahmed Alebri, Acting Chief Executive Officer, ADNOC Gas; and Andree Stracke, Chief Executive Officer, RWE Supply & Trading.



TOTALENERGIES

TOTALENERGIES, CORIO SIGN AGREEMENT TO DEVELOP OFFSHORE WIND IN TAIWAN

TotalEnergies has signed a joint venture (JV) agreement with Corio Generation to develop the Formosa 3 offshore wind farm in Taiwan.

According to the JV, Corio will maintain its status as the majority shareholder with 50% plus 10 shares overall in the project.

The declaration followed Taiwan's Bureau of Energy report in late December 2022 stating

that Formosa 3's Haiding 2 wind farm had been successfully awarded 600 MW grid capacity following the first phase of Taiwan's Round 3 auctions.

The Formosa 3 project, which received Environmental Impact Assessment (EIA) approval in 2018, consists of three proposed wind farms.

The wind farm development, which represents a multi-billion dollar investment from the partners and project lenders up until the end of construction, is anticipated to help Taiwan's ambitious objectives for the green energy transition.



EQUINOR

EQUINOR MAKES NEW DISCOVERY BY NORTH SEA TROLL FIELD

Equinor announced the seventh oil and gas discovery, since the autumn of 2019, in the North Sea close to the Troll field.

The discovery, the majority of which is oil, is known as Røver Sør, with an estimated size between 17 and 47 million barrels of recoverable oil equivalent.

Equinor is the operator of the production license and the partners include DNO, Wellesley Petroleum and Petoro.

"Discoveries close to existing infrastructure are important to maintain oil and gas production from the Norwegian continental shelf. They need

smaller volumes to be profitable and can be put on stream quickly with low carbon emissions. As this discovery is close to the Troll field and other discoveries we have made in the area, we can already now state that it will be commercial," says Geir Sørtveit, Equinor's senior vice president for exploration and production west operations.



PETRONET

PETRONET SEEKS ADDITIONAL LNG UNDER LONG-TERM QATAR AGREEMENT

Petronet, India's largest gas importer, is seeking 1 million tonnes per year in additional liquefied natural gas (LNG) supplies when it renews its long-term deal with Qatar, the company's chief executive said on Tuesday, Reuters reported.

"We are seeking an additional 0.75 to 1 mtpa on top of existing 8.5 mtpa contact," Chief Executive A.K. Singh told reporters on the sidelines of the Indian Energy Week conference.

Petronet has until the end of this year to renew its contract with Qatar, where it is currently acquiring LNG at a price of \$16 per million British thermal units.

India's LNG imports decreased for the second straight year in 2022, primarily as a result of utilities purchasing less LNG as the nation increased the production of coal-fired electricity at the expense of natural gas.

The energy-starved country anticipates that increased city gas distribution would increase demand for LNG in the upcoming years.



CHEVRON

CHEVRON, ALGERIA DISCUSS ENERGY EXPLORATION DEALS AMID RUSSIAN SANCTIONS

Chevron Corporation is in talks with Algeria to allow the US oil giant to carry out exploration in the North African country.

According to sources familiar with the situation, the North African nation ramps up efforts to replace restricted Russian supplies in the neighboring European continent, WSJ reported.

Chevron inked a memorandum of understanding with the state-run company Sonatrach to explore natural gas opportunities in 2020 but progress had been slow until recently. According to those who are familiar with the matter, Chevron reopened discussions about investing in Algeria.

According to the article, which also cited persons with knowledge of the situation, the corporation has sent representatives in charge of government relations, security, and commercial development to the Algerian capital Algiers, some of whom have met with Algerian officials in the last two months.



EXXONMOBIL

EXXONMOBIL SETS HISTORIC RECORD FOR WESTERN OIL INDUSTRY IN 2022

Exxon Mobil Corp, which earned roughly \$6.3 million per hour last year, reported a \$56 billion net profit for 2022, breaking both a company record and achieving a historic high for the Western oil industry, Reuters reported.

Exxon's profits were significantly better than the then-record \$45.2 billion net profit it posted in 2008 when oil hit \$142 per barrel, 30% higher

than the average price of the previous year. The epidemic led to significant cost reductions, which helped boost revenue last year.

"Overall earnings and cash flow were up pretty significantly year on year," Exxon Chief Financial Officer Kathryn Mikells told Reuters. "So that came really from a combination of strong markets,

strong throughput, strong production, and really good cost control."

Exxon said that a European Union windfall tax that started in the final quarter and asset impairments cost its fourth-quarter earnings \$1.3 billion. The business is suing the EU, claiming that the tax goes beyond what is allowed by law.



ARAMCO

ARAMCO SIGNS AGREEMENTS WORTH \$7.2B AT 7TH IKTVA FORUM

At the 7th In-Kingdom Total Value Add (iktva) Forum and Exhibition, Aramco inked more than 100 agreements and memorandums of understanding (MoUs) worth over \$7.2 billion to support the development of a varied, sustainable, and globally competitive industrial environment. In 2022, the program included 63% local content, up from 35% in 2015 when iktva was first introduced.

The forum, which takes place from January 30 to February 2, has "Accelerating Future Success" as its topic. It showcases group localization initiatives in crucial focal areas like manufacturing, sustainability, industrialization, and digitalization. More than 10,000 people attended the event's opening day, and more than 290 companies had booths there.

The event was held under the patronage of Saud bin Nayef bin Abdulaziz, Governor of the Eastern Province and was attended by Minister of Energy Abdulaziz bin Salman bin Abdulaziz.



ENI

ENI, SIMPLY BLUE GROUP JOIN FORCES TO DEVELOP FLOATING OFFSHORE WIND PROJECTS IN ITALY

Plenitude, Benefit Corporation (Società Benefit) company of Eni, and Simply Blue Group, an Irish blue economy project developer, have reached an agreement for the combined development of a pipeline for new floating offshore wind projects in Italy.

Through this partnership, the parties hope to bring together Plenitude's technical, financial, and energy market expertise in Italy with Simply Blue Group's experience in creating floating wind projects around the world.

Messapia in Apulia and Krimisa in Calabria are the first two floating offshore wind projects that have

already been filed to the necessary authorities.

Overall, it is anticipated that the two projects will be able to meet the energy requirements required to power more than 2.5 million households, aiding the nation's efforts to reduce its carbon footprint.



BP

BP, PARTNERS DEVELOP CONCEPT FOR GTA2 FOR THE NEXT PHASE OF EVALUATION

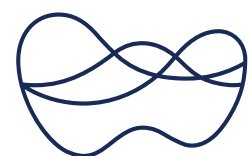
bp and partners have announced that they have developed a concept for the bp-operated Greater Tortue Ahmeyim (GTA) liquefied natural gas (LNG) project that will proceed to the next step of evaluation.

The partnership, made up of bp, PETROSEN, Société Mauritanienne des Hydrocarbures (SMH), and Kosmos Energy, will assess a gravity-based structure (GBS) as the foundation of GTA Phase 2 expansion project (GTA2), which will have an annual capacity of 2.5-3.0 million tonnes.

GBS LNG developments have a fixed link to the seabed, and the structure serves as both a foundation for liquefaction facilities and a storage facility for LNG.



WINTERSHALL DEA CHAMPIONS WOMEN'S INCLUSION, EMPOWERMENT



wintershall dea

As an organization that prioritizes merits over gender identity, Wintershall Dea has been powered the momentum behind women's inclusion in the workforce for years, working to break the barriers of gender exclusivity and pave the way for a more inclusive and tolerant future.

This is especially the case for Wintershall Dea Egypt, widely considered a role model for promoting the rights of women both inside and outside of the workplace while

working to ensure that women have equal opportunities for career advancement and growth within the company.



"Wintershall Dea believes strongly in diversity, equity and inclusion. I personally share this belief and I'm proud to lead a diverse team, with many coming from different backgrounds, nationalities and genders, including some real strong women"

SAMEH SABRY

Senior Vice President, Managing Director Egypt, Wintershall Dea

"Wintershall Dea believes strongly in diversity, equity and inclusion. I personally share this belief and I'm proud to lead a diverse team, with many coming from different backgrounds, nationalities and genders, including many real strong women," said Sameh Sabry, Senior Vice President, Managing Director Egypt of Wintershall Dea. "We want our company to be attractive to people with diverse backgrounds and to women and men alike. Because we want to recruit the best talents. And because we recognize that having a diverse team means diverse perspectives – and a stronger, more effective business. We strive to create an environment of equity – in which everyone has the same chance to thrive. We have a lot to be proud of. For example, our global certification from the EQUAL-SALARY Foundation and PricewaterhouseCoopers. This confirmation of our approach to equal pay is good for business – helping foster a culture of transparency and trust. But, there is always more to be done. Through initiatives like our active global women's network, we keep working," Sabry added.

Take it from the women of Wintershall Dea themselves! Many of them have described the experience of working at Wintershall Dea as tolerant, progressive and open. My experience with regard to women empowerment at Wintershall Dea is outstanding. Having a company putting targets on



diversification in hiring is a good instrument to increase the share of women in leadership position. Additionally, the training women receive regularly positively affects their career development", said Ghada Khodeir, HR Business Partner. She added that the company's women's inclusion policies were especially beneficial during the pandemic "Wintershall Dea offered a hybrid working model throughout Covid-19 and then chose to continue to keep it. This model is supporting a good work-life balance and offers flexibility. It is not about the place of work but about the way of working and lowers the pressure on employees. All genders reported that it enabled them to have more quality time with their families."

Executive Assistant Amira Abdel Aziz also added that the company "makes a point to diversify leadership positions, promote an environment of safe and open communication, and provide accessible resources for women."

A Deep Understanding of Women's Challenges in Business Culture

Nipping the problem in the bud requires in-depth knowledge of the challenges that women face in the industry on a daily basis. Wintershall Dea invests great effort into understanding the root causes of these challenges and does its best to resolve them with pragmatic solutions.

As a woman who has worked hard in the industry, Sara El Kholy, Commercial and Sales Expert, knows all too well what women have to go through. "The main challenges women face during their career are unconscious bias, this can be anything from a belief in gender stereotypes to subconscious attitudes about female capabilities. Eventually, women are more likely to be passed up for promotions."

Senior Geologist Hamsa El-Khawaga also understands these challenges, saying: "Often females are taken less seriously than male but at the same time are assumed to be less committed than men. Our capabilities are questioned regularly."

Senior Project Control & Planning, Nermin Ali explains that usually "women are taken less seriously as leaders than their male counterparts. They are less likely to be given 'authoritative' roles and generally face lower expectations for their career advancement. As harsh as it sounds, female leaders even in senior management positions often face lower (or different) expectations than their male counterparts," she said, adding that "Wintershall Dea truly promote a culture that empowers female employees. They give women opportunities to prove themselves as leaders through adequate promotions and assignments."

Opportunities for career advancement are often not found for women in the industry, a reality that Wintershall Dea is working to change for the good of everyone. From the perspective of Amira Sideek, IT Manager, improving accessibility is one of the main solutions that need to be looked into and it is also a key area that Wintershall Dea has always excelled in. "One of the challenges is limited career advancement opportunities, by ensuring equal access to promotions and new leadership positions. Mentorship programs and professional development strategies are also helpful when it comes to expanding opportunities and growing professional networks." She added, "Women are a great asset to the workplace and their presence and advancement drive economic growth and improve businesses' financial and organizational results."



"Role models have an important role to inspire employees when they are facing career roadblocks or challenging workplaces. Ultimately, role models can offer an alternative way of looking at who we are, what works for us, and what we want to achieve"

SARA EL KHOLY

Commercial and Sales Expert at Wintershall Dea



"Being a communications expert, I fully understand how a role model can provide inspiration and motivation, leading to better decisions and a more positive outlook on life. Role models can help the youth develop their talents and figure out what they want to do with their lives"

NERMIN USAMA

Head of Communications and CSR at Wintershall Dea



"Women are a great asset to the workplace and their presence and advancement drive economic growth and improve businesses' financial and organizational results"

AMIRA SADEEK

IT Manager at Wintershall Dea



"Wintershall Dea truly promote a culture that empowers female employees. They give women opportunities to prove themselves as leaders through adequate promotions and assignments."

NERMIN ALI

Senior Project Control & Planning at Wintershall Dea



"The company makes a point to diversify leadership positions, promote an environment of safe and open communication, and provide accessible resources for women."

AMIRA ABDEL AZIZ

Executive Assistant at Wintershall Dea



"[Women should] be more active in decision-making [and] self-awareness [as well as] to have short- and long-term goals [and] to get leadership training."

SHAHISTA SOLIMAN

HR Specialist at Wintershall Dea

Empowerment Through Capacity Building

One of the most important ways of empowering women is to give them equal opportunities to build their capacities and develop themselves.

“With the full support of my company, I continuously sharpen my skills, I learn and grow. I think it is important to speak up, be visible, share your progress and assert your needs and positions as needed,” said Nermin Usama, Head of Communication & CSR.

Senior Geologist, Hamsa El-Khawaga also believes in equal access to professional development programs for all genders. “Career development should be given equally to every employee (woman/ man) to implement and facilitate the development bases for everyone as if it is a part our daily work; eventually Wintershall Dea will have highly developed employees capable of moving the company toward a bright future.”

Leaving women behind the helm to steer the company in the right direction is one of the many results that came out of the company’s professional development initiatives made available to women. Finance Executive Assistant & Senior Technical Assistant, Rasha Ibrahim explains that Wintershall Dea also prides itself on its world-class mentoring program and its policies against harassment. “Our Company is supporting Diversity leadership by promoting women to management levels. Also implemented Mentoring Program to enable us to improve ourselves. It prevents sexual harassment and strongly encourages us to report it and take all necessary actions.” She added that the “company can support us to overcome harrassment/discrimination by keep creating new positions for women and giving them the opportunities they need to develop and perform better.”

Reham Youssef, Data and Information Expert, emphasized the importance of establishing professional networks. “Organizations can support creating opportunities for women to connect with each other by community-building,” she said. “One such way is through setting up an employee resource group which we already have in our company, the Women Network.”

Professional Development Through Role Modeling

A huge part of capacity building is through creating successful role models for women to follow. “Being a communications expert, I fully understand how a role model can provide inspiration and motivation, leading to better decisions and a more positive outlook on life. Role models can help the youth develop their talents and figure out what they want to do with their lives,” said Nermin Usama, Head of Communication & CSR. “People of all ages can benefit from having a role model. I was lucky when I met my first boss, who still is my role model in communications and social engagement. I will always mention her name ‘Nadia Sobhi’ with full pride in what she taught me.”

With a robust professional development program, Wintershall Dea has become a role model for other organizations to improve training and capacity building to ensure that women have equal opportunities in key leadership positions. For Shahista Soliman, HR Specialist, it is important to focus on being “more active in decision-making [and] self-awareness [as well as] to have short- and long-term goals [and] to get leadership training.” She added that organizations should also “[Have] equal pay, female leadership programs, set achievable goals to support women’s professional



“Career development should be given equally to every employee (woman/man) to implement and facilitate the development bases for everyone as if it is a part our daily work; eventually Wintershall Dea will have highly developed employees capable of moving the company toward a bright future.”

HAMSA EL-KHAWAGA
Senior Geologist at Wintershall Dea



“In my opinion one of the challenges that an ambitious woman might face when pregnant or nursing is that it can affect the continuous improvement of her skills.”

PASSANT IBRAHIM
Treasury accountant at Wintershall Dea



“A healthy work-life balance encourages diversity and inclusion, which helps close the gender gap and increase gender balance”

HADEEL GALAL
Senior planning and project control at Wintershall Dea



“Organizations can support creating opportunities for women to connect with each other by community-building”

REHAM YOUSSEF
Data and Information Expert at Wintershall Dea



“The company believes in work-life balance, and they take all the required measures to make sure that work doesn’t take priority over personal life”

NERMEEN EL SHAFIE
Senior Procurement and SAP Specialist at Wintershall Dea



“My experience with regard to women empowerment at Wintershall Dea is outstanding. Having a company putting targets on diversification in hiring is a good instrument to increase the share of women in leadership position. Additionally, the training women receive regularly positively affects their career development”

GHADA KHODEIR
HR Business Partner at Wintershall Dea

goals, provide them [with] more flexibility to create a better environment for career development [and] encourage women to get leadership goals and roles.”

Commercial Advisor, Amira Boshra, agrees, also believing that role modeling is important, stating “As basic as it may sound, it does make a huge difference in the morale of a young female professional to see hope through a successful woman leader.”

Commercial and Sales Expert, Sara El Kholy, explains that “role models have an important role to inspire employees when they are facing career roadblocks or challenging workplaces. Ultimately, role models can offer an alternative way of looking at who we are, what works for us, and what we want to achieve.” Executive Assistant, Amira Abdel Aziz, also agrees, saying “A role model can provide inspiration and motivation, leading to better decisions and a more positive outlook on life.”

Improving Work-Life Balance

Part of having a healthy working culture at an organization also means ensuring that women and employees of all genders enjoy a conducive work-life balance. Wintershall Dea has been a leader in this regard according to Senior Procurement and SAP Specialist, Nermeen El Shafie, who elaborates that “the company believes in work-life balance, and they take all the required measures to make sure that work doesn’t take priority over personal life.” She added, “The work from home policy has been acting as an incentive to support work-life balance.”

Establishing a healthy is the key to ensuring the well-being of the company’s employees while securing the interest of the company. “A healthy work-life balance encourages diversity and inclusion, which helps close the gender gap and increase gender balance,” said Senior planning and project control, Hadeel Galal. “As a means of enhancing work-life balance, our business uses the Flex Forward hybrid workplace model, which combines two sites for work. The choice to work in the office just on the two core days is made by the employees. The remaining three days can be planned and set up in a flexible manner, taking into account the needs of the person, the team, and the business.”

Amira Boshra, Commercial Advisor, agrees further stating that “Wintershall Dea’s Flex-forward policy which allows employees to work flexible hours (and remotely to a large extent) has tremendously helped with that. Without such flexible systems, women would typically be more penalized than men for having family-related obligations.”

Passant Ibrahim, Treasury Accountant, says that the company’s flexibility in terms of establishing a healthy work-life balance is especially important for new mothers, who faced endless challenges trying to attend to their family obligations while excelling in their careers. “In my opinion one of the challenges that an ambitious woman might face when pregnant or nursing is that it can affect the continuous improvement of her skills,” she said. “Organizations can help in that by providing specific flexible programs to ensure a continuous improvement.”





“As basic as it may sound, it does make a huge difference in the morale of a young female professional to see hope through a successful woman leader”

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Commercial Advisor at Wintershall Dea



“Our company is supporting diversity leadership by promoting women to management levels. Also implemented mentoring Program to enable us to improve ourselves. It prevents sexual harassment and strongly encourage us to report it and take all necessary actions”

RASHA IBRAHIM
Finance Executive Assistant & Senior Technical Assistant at Wintershall

A PIONEER FOR WOMEN IN THE GLOBAL ENERGY MARKET REFLECTS ON THE FUTURE

An Interview with Iman Hill, CEO of the International Association of Oil & Gas Producers (IOGP)

Egypt Oil & Gas CEO and Founder Mohamed Fouad meets with one of the energy sector's leading women Iman Hill, CEO of the International Association of Oil & Gas Producers (IOGP), to get a deeper insight into where the industry is heading and what hot opportunities are in store for Egypt.

How does it feel to be back in Egypt?

It feels absolutely lovely always when the plane is coming down and I can see the lights of Cairo, and it just makes my heart happy, because I am coming home.

How would you characterize the last decade and how do you see our industry in the coming decade?

I've worked all over the world and one thing I can say about Egypt is that the government of the country always honored the sanctity of the contract and never repatriated or repossessed assets. I think that's something that is huge in terms of providing stability and actually real partnership with partners coming in to invest.

I think there have been some very clear big things for Egypt in the last decade. Usually, our sector in the past has been dominated by international oil companies and today I would say you see many more national players, local companies, which is great because you know it is pride of ownership there and it creates lots of job opportunities. The other thing I'd say that was huge in the last decade, it was very visionary from His Excellency Minister of Petroleum and Mineral Resources Tarek El Molla, is the establishment of the East Mediterranean Gas Forum because the challenges that we face as an industry, as a world, is all about how we can actually come together to overcome those

challenges and create the platforms for breaking down those national barriers and doing a kind of regional trade and so on. So, those I would say were the big things in the last ten years.

Looking forward, there is no doubt that Egypt established itself as a regional hub. I think it is well on its way to actually gaining a reputation as an international hub. I think the unfortunate events of last year, the Ukraine invasion, also creates opportunities here locally because this is an LNG exporting country, and so there is even more opportunity to actually grow that. If you think about this coming decade and what we are facing we expect to with respect to all of us working together to reach the Paris Climate Agreement goals.

Then the fact that Egypt signed the Global Methane Pledge last year is huge. The fact that there is already a decarbonization plan that is overseen by His Excellency and the ministry and that was published recently. Those are really big things, and it is time to be in concrete action on methane emissions, on implementing the decarbonization solutions in existing and new projects.

I think finally that without people we are not going anywhere. The middle management development program that was started by His Excellency, that was visionary; it's huge to make sure that



capacity, capability, the talent pipeline is standing this country in good stead. So, those are some of the things I think about with respect to the next decade.

Given what you've just mentioned regarding the next decade, what are the greatest opportunities do you think Egypt has for its energy sector?

This country is a gas switch. We all want to go towards and have to go towards climate-neutral energy supply sources, but there isn't enough renewables at the moment to meet demand. So, gas is the transition fuel that can allow basically the development of eventually a renewable hydrogen economy, a sustainable renewable-hydrogen economy. So, for Egypt, I think this is huge. And then the leadership that Egypt shows in the region, but also to other Global South neighbors, you know the



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African nations, because the energy transition is not the same for everybody. So, I think those are specific opportunities.



Looking forward, there is no doubt that Egypt established itself as a regional hub. I think it is well on its way to actually gaining a reputation as an international hub.



What are your views on the role that green hydrogen can play and how do you think Egypt is placed to contribute?

I think it is important to recognize that until there is sufficient green hydrogen or renewable hydrogen, it would be great to acknowledge that low-carbon hydrogen, which is produced with a combination of gas and carbon capture and storage (CCS), has to be the interim step. It is a chicken and egg situation in a way because if there is no infrastructure for renewable hydrogen, we won't be able to produce renewable hydrogen. If there is not enough renewable hydrogen, we will not build the infrastructure. And our industry knows how to build gas plants for low-carbon hydrogen, and then we can integrate in a very streamlined way renewable hydrogen into those. The fact that Egypt has actually gone forward and signed memorandums of understanding (MoUs) is taking that first step to enable a more sustainable, cleaner hydrogen economy.

Taking you from another angle as a leading woman in the energy sector, can you share your thoughts on career prospects for women in this sector in the context of the energy transition?

I remember last year at EGYPS, I was listening to many colleagues who were talking about what their companies were doing today around inclusivity, driving diversity, and creating opportunities for women. I think it is a fantastic time for women to be in our industry. It is an exciting industry and I think if I think about the energy transition, it's such a broad range of skills that are required. Your technical people have to do their stuff on the technology, the commercial people have to set up the frameworks, we need our comms [communications] people to be advocating. So, what I would say is that there are opportunities

for all and all are welcome. I struggle to think of a more exciting industry to be in.

What are the key takeaways from your experience working around the world and what lessons can we learn from this?

There are two or three things that stand out for me from the different corners of the world. Let's take it in about energy transition, for example. There's no cookie-cutter approach to the energy transition. There's no one size fits all. I am really pleased to see that there is now a growing recognition about what can be done in the Global North doesn't have to be applied in the Global South.

I was really pleased to see also this growing ownership from the Global South around. You know, we're going to develop our resources and we're going to do that to derive the economic development of all nations, and actually by the way, we've got sunshine and we've got wind and so we can in a way accelerate our ability to generate energy from clean sources. I really like that there's a growing kind of recognition that what happens in Europe doesn't necessarily apply to the rest of the world.

The other thing I've noticed is that it's those countries and regions where the government, the regulators and the industry actually come together to have the constructive dialogue around what's needed to continue to grow the sector and develop the sector and meet the challenges that we've got as a society. That's where things really work well and you see that actually, this happened in Egypt a long time ago. But you see it in places like Guyana and Suriname today, we're rapidly trying to develop their oil and gas sector, and actually it's forcing those partnerships and those can only be positive.

My final [point] again comes back to people which is how do we continue attracting people into our industry here in Egypt is not another problem. But Gen Z and millennials in Europe don't want anything to do with our industry. So how do we continue to actually make ourselves attractive and describe what we do and the

critical role that we play for society properly so we can keep filling the talent pipeline?

What piece of advice would you give to the young women in the energy sector's workforce that could help them advance their careers?

I would say two or three things again. It would be, first of all, nobody could stop you from achieving your dreams except you. The second thing is look out for and reach out to those other women local to you who understand the challenges of the sector as a whole, but also really understand the local challenges because they will always want to help. The final thing I would say is that our generation created the space and reputation for the generations that came after us. These generations today are creating the space, the environment, and the reputation for their daughters and for granddaughters, so I would always say be dependable. When you say "I'm going to do something", do it with quality.



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EGYPS 2023 HIGHLIGHTS ENERGY SUSTAINABILITY, STABILITY IN NORTH AFRICA AND THE MEDITERRANEAN

The inauguration of Egypt Petroleum Show's (EGYPS 2023) sixth edition was honoured with the presence of Egyptian President Abdel Fattah El Sisi who affirmed the importance of the East Mediterranean Gas Forum (EMGF) and Egypt's efforts to create stability in oil and gas markets.

"The effort [that Egypt] exerts in cooperation with exploration and production companies is a critical element which assists the EMGF in playing its role in mitigating the effects of the [energy] crisis and securing the demand for gas in Europe in the coming period," El Sisi said. "More discoveries, whether in Lebanon, Israel, Egypt or any other country, can provide gas to Europe and hence relieve the demand and pressure created by the Russia-Ukraine conflict [on global energy markets]."

Under the patronage of the Egyptian President, EGYPS 2023 kicked off to a vibrant and stimulating start with emphasis on this year's theme 'North Africa and the Mediterranean: Supporting Sustainable Global Energy Supply and Demand'.

In his speech during EGYPS 2023 opening, the Egyptian Minister of Petroleum

and Mineral Resources Tarek El Molla elaborated further on the importance of this significant occasion. "This edition, under the theme of 'North Africa and the Mediterranean: Supporting Sustainable Global Energy Supply and Demand' comes at a critical time as global communities face a wide range of challenges, the consequences of which have affected the whole world, including Egypt."

"In an effort to mitigate the impact of these challenges and work to transform them into opportunities that support the Egyptian economy, the sector has worked to exploit the advantages that Egypt enjoys in overcoming the energy crisis," El Molla added.

El Molla also took advantage of this joyous occasion to announce that next year's edition of the show will be rebranded as Egypt Energy Show (EGYPES). "Starting from the upcoming edition, the conference

will become Egypt Energy Show (EGYPES), allowing for the expansion of the conference and exhibition topics to include issues of energy transition, emissions reduction, and hydrogen to keep pace with the rapid global changes in the energy sector."

dmg events President Christopher Hudson also delivered opening remarks saying: "This year's Egypt Petroleum Show is our largest to date. We have 280 speakers across a range of conferences, 500+ exhibitors and 12 international country pavilions. We are anticipating to welcome over 32,000 attendees from more than 70 countries over the next three days to engage in dialogue, build partnerships and advance business opportunities at the local, regional and international levels, harnessing Egypt's position as a strategic global energy hub."

In a keynote address by Haitham Al Ghais, Secretary General of the Organization of the Petroleum Exporting Countries (OPEC), talked about the organisation's commitment to the market "OPEC remains committed to supporting oil market stability. OPEC also remains committed to investment in order to meet rising demand and reduce the industry's carbon footprint."

☞ Egypt's efforts in the gas industry will have a positive impact on European countries. ☞

HIS EXCELLENCY
ABDEL FATTAH EL SISI
President of the Arab Republic of Egypt



Al Ghais highlighted the importance of Egypt's contribution to stabilizing petroleum markets. "Egypt has been a supporter of the Declaration of Cooperation which has been recognized by the G20 and leading consumer countries for its constructive and positive role in supporting global oil market stability." Moreover, Al Ghais commented on global oil demand noting that "[OPEC's] latest forecast shows that oil demand is on course to exceed pre-pandemic levels this year, reaching almost 102 million barrels a day and further rising to reach 110 million barrels a day by 2045."

The EGYPS 2022 opening witnessed a panel discussion between President El Sisi, Minister El Molla, Secretary General of the International Energy Forum (IEF) Joseph McMonigle; bp's CEO Bernard Looney, and Apache Corporation's CEO John Christmann.

El Molla talked about how to deepen international cooperation in the coming period. The Egyptian minister pointed out how the past crisis, COVID and the Russian-Ukrainian war, shed light on energy security challenges. "The recent [global] events revealed that several measures should have been taken that were not

complete at the time of the crisis. These include the value of investments that should contribute to energy transition and decarbonisation," adding that the crisis showed the necessity for injecting "big investments into technologies for energy transition, while [ensuring] sustainability in parallel."

Looney agreed, stating that "the events of last year taught us that [the world] needs energy transition, and it needs the energy transition to be orderly."

Christmann offered an optimistic outlook on demand in the energy sector for the years to come saying, "We see good long-term demand. Let's not forget that 10% of the world's population still needs access to reliable, affordable energy. In Egypt, a big part of our portfolio, we have increased investments based on the vision of His Excellency President Abdel Fattah El Sisi and Minister Tarek El Molla to modernize Egypt. It has given us a platform to triple our investments."

Echoing the importance of oil in energy markets, International Energy Forum (IEF)

Secretary General Joseph McMonigle asserted that the global oil industry is in dire need of more investments to maintain market stability. "Until we address this underinvestment problem, I am afraid the new normal is going to be high prices and volatility."

The conference witnessed the participation of leaders of major international energy organizations, led by OPEC, the International Energy Agency (IEA), the Eastern Mediterranean Gas Forum (EMGF), the Organization of Arab Petroleum Exporting Countries (OAPEC), the African Petroleum Producers' Organization (APPO), the Union for the Mediterranean (UFM), the Mediterranean Energy Observatory (OME), the International Energy Forum (IEF), the International Gas Union (IGU), the International Association of Oil & Gas Producers (IOGP), the African Energy Commission (AFREC), and the World Energy Forum.

In all of its editions, EGYPS has enjoyed remarkable success in bringing energy leaders together and standing out as one of the most prominent oil and gas events in the Mediterranean region and North Africa.

EGYPS 2023 STRATEGIC CONFERENCE PROMOTES STRONGER REGIONAL UNITY

As the industry moves from climate commitments to actions and continues efforts to decarbonize its oil and gas operations, the reshaping of markets, driven by new geographical supply and demand dynamics, continues at pace. During EGYPS 2023, the Strategic Conference addressed the current needs of the energy transition, being a key enabler to overcoming climate change and reducing dependence on limited energy sources.

dmg events President Christopher Hudson welcomed the attendees, highlighting the significance of the Egypt Petroleum Show (EGYPS). "No other event in the region brings together global influences on issues of strategic policy, investment, resilience, partnership, evolving energy supply and demand challenges, climate technology, and an acceleration and much more. This is a platform for the conversations that will energize the just energy transition, and a commitment to a sustainable, secure, and affordable low-carbon energy future for all."

Hudson also announced that the next edition of the conference and exhibition will be Egypt Energy Show (EGYPES) stating that "this will not be forgetting our past, but embracing our future."

During his opening speech, Minister of Petroleum and Mineral Resources Tarek El Molla noted that "EGYPS now is considered an annual global platform to ensure open conversations on an agenda that drives



regulations, investments, security, transition, and innovation."

Meanwhile, the Commissioner for Energy at the European Union (EU,) Kadri Simson, pointed out that "despite prices, we need to keep now a firm eye on where we are going, how

to turn this crisis into a foundation for a more sustainable energy future."

This conference highlighted the energy sector's challenges and opportunities, particularly in Egypt, Africa and the East Mediterranean regions.

Redrawing the Global Energy Map

After the Strategic Conference opening, El Molla, Simson, along with H.E. Amani Abou-Zeid, Commissioner for Infrastructure and Energy at the African Union Commission (AU), had a remarkable session under the title of ‘Managing Supply and Demand in Volatile times – Supporting Global Economies and Energy Security’.

During the session, they discussed the importance of embracing an innovative agenda to support partnerships that drive growth across the energy value chain, supporting global economies and energy security, as they highlighted the geopolitical uncertainty and changing dynamics of the global energy trading system.

The second strategic session of the conference titled ‘Redrawing the Global Energy Map – Fast-Tracking Delivery and Creating New Routes to Market’ was a critical discussion on how to get new oil and gas supplies to the market in an efficient way, and how economies can safeguard themselves from relying on only one major supplier.

The session brought together distinguished leaders including John Christmann, CEO and President of Apache Corporation; Mario Mehren, CEO of Wintershall Dea; Mansoor Mohamed Al Hamed, CEO of Mubadala Energy; Lorenzo Simonelli, Chairman and CEO of Baker Hughes; and Antonio Pietri, CEO of AspenTech.

The EMGF’s Evolution Opens Up New Horizons for Regional Collaboration

Unleashing the great potential of the East Mediterranean Gas Forum (EMGF), an eye-opening discussion titled “New Beginnings – The Race to Exploiting East Med Gas” took place as part of the Strategic Conference to dig deep into the forum’s pivotal role in ensuring energy security, driving mutual economic prosperity and reducing the regional carbon footprints. This also goes in tandem with the forum’s broader vision to pave the way for regional importing and exporting countries to become partners and suppliers of choice.

The panelists also shared their reflections over the past six years and their aspirations for the upcoming six years in light of the evolving energy market.

During the discussion, Minister of Petroleum and Mineral Resources Tarek El Molla stated that EMGF is a dream that came true through a multi-phase process coupled with adequate infrastructure and policies. “Now, we are having



a model that can be replicated and expanded. We are showing success.”

Meanwhile, the session witnessed the participation of Zafer Milhem, Chairman of the Palestinian Energy & Natural Resources Authority, and Walid Fayad, Lebanon’s Minister of Energy and Water, who praised Egypt’s tangible efforts to enhance regional collaboration.

The Palestinian official said though Palestine is one of the first countries that discovered natural gas in the East Mediterranean since 1999, its market is still underdeveloped, grappling with numerous challenges. In this regard, the official lauded Egypt’s effort to support Palestine, referring to the Memorandum of Understanding to deploy Egyptian companies to develop Marine Gas.

Decarbonizing the Industry

The strategic conference program included a global business leaders’ session ‘Decarbonizing the Industry’ which discussed building a winning downstream portfolio as well as the alternatives like renewable feedstocks and where they sit.

The discussion tackled the significance of methanol in today’s industries. Sumner indicated that methanol is essential for the renewable sector as it is used in solar panels, wind farms, and electric vehicles.

The Rise of Gas, LNG

The conference further tackled the balance between supply and demand, the development of African gas, as well as the rise of gas and LNG, discussing the global scramble in a tight market with soaring prices.

The attendees shared their insights on the current global trading environment. The event also highlighted the region’s agreements and partnerships to provide supply and be a hub for energy, as Egypt opens its additional capacity

in the liquefaction plants for other countries in the region to export their production to Europe.

Moreover, the distinguished business leaders talked about pivoting from traditional oil and gas operations to new generation energy solutions – driving change through tough asset portfolio choices.

The talks further highlighted new technologies that shape the energy sector’s evolving market, drawing attention to the files of CCUS, methane reduction, flare recovery and reinjection, low-carbon hydrogen and energy management and efficiency, bearing in mind that more efforts are being expanded in these areas to increase momentum and advance decarbonization across the oil and gas value chain.

El Molla Calls for More Investments in Entire Energy Mix

At the end of the Strategic Conference at EGYPs 2023, Minister of Petroleum and Mineral Resources Tarek El Molla praised Egypt for hosting the conference, indicating that the “four days of activities are just a reflection of what Egypt is doing in the [realm] of energy.”

El Molla praised the country’s vision six years back when it called for the Egypt Petroleum Show (EGYPs) to be held in Egypt and succeeded in bringing together many energy leaders in one place for the sixth edition.

Talking about the energy sector’s needs for investments, the minister indicated that the entire sector with its diverse energy mix, consisting of both fossil fuels and renewables, needs investments. He pointed out that the world cannot exclusively focus on renewables and ignore other sources of energy, asserting that global markets still need an increase in fossil fuel production to sustain their needs. “Less investments means less production, that means higher prices, and it is going to be a vicious circle.” El Molla concluded. “We need the investments in all aspects and I wouldn’t prioritize any of them.”

DECARBONIZATION, DIGITALIZATION, OPTIMIZING PETROCHEMICAL PRODUCTION BRIGHTEN THE EGYPs 2023 TECHNICAL CONFERENCE

The EGYPs 2023 Technical Conference provided the industry’s oil and gas professionals with an unrivaled opportunity to meet face-to-face and learn how to stay technically relevant, digitally competitive, and business resilient, fully embracing the constantly evolving market landscape. The conference program covers subjects from exploration and field development to HSE, digitalization, petrochemicals and biofuels – featuring a wide array of topics that are useful for any professional who wants to keep up with current developments in their specialized field.

The Technical Conference involved 19 technical categories and a thorough two-stage Technical Committee review, comprising over 80 industry specialists. In EGYPs 2023, the technical program features over 180 experts speaking at 45 sessions.

Carbon Emissions Reduction

Under the subject of “Reducing Carbon Footprint and Green House Emissions,” a technical session was launched involving four insightful presentations on the importance of carbon emissions and what could be done to address this issue. The first presentation titled “A Pragmatic Transition to Net Zero Energy Production” addressed the ever-growing need to transition to net zero energy production. During the discussion, Yasser Gamal-Eldin from MAN Energy Solutions Egypt stressed the urgency to shift into reducing CO2 emissions, saying “CO2 emissions from power have to decline by around 60% in 2030 in order to reach net zero energy production by 2050”. In addition to the need to reduce emissions, renewables in the global electricity supply will increase to 60% by 2030.

During another presentation titled “Reducing Carbon Footprint and Greenhouse Emissions in Few Steps for Quick Results and Fast ROI”, Schneider Electric Strategic Account Executive Tiziana Paolicelli talked about what needs to be done to deliver customer-valued sustainable performance by 2025. These objectives include a “100% substitution with SF6-Free medium voltage technologies [and an] increase the green material content in our products to 50%.”

Furthermore, the third presentation, which witnessed the participation of Babcock Wilcox Managing Director Wassim Moussaoui, addressed the topic of “Considerations When Co-Firing Hydrogen with Natural Gas or Oil for Carbon Emission Reduction”. He mentioned that “Industrial facilities can improve their carbon footprint with the use of non-carbon-based fuels. But to achieve that, a comprehensive evaluation of the overall combustion system is needed to achieve a safe and successful transition to non-carbon-based fuel firing.”

Finally, in the fourth presentation titled “Net Zero Carbon Intelligent Campus” delivered by Mostafa Hazem, Solution Director – Oil & Gas Sector for North Africa Region, Huawei, discussed key decarbonization and energy transition methodologies. “From Huawei’s perspective; the methodology to achieve energy transition relay on three main aspects which are: net zero transformation, energy transformation, and digital transformation,” said Hazem. “The best-case scenario is to balance between these aspects to achieve a net zero smart industrial campus,” he added.

Towards a Sustainable Petrochemical Industry

The second day of the EGYPs Technical Conference witnessed a technical session called “Towards a Sustainable Petrochemical Industry. Through four very informative presentations, it discussed the future of petrochemicals, exploring the role of the industry in today’s energy sector.

The first presentation was by Mohamed Abdel Atty Ahmed, Ammonia and Utilities Plant Manager at Misr Fertilizers Production Co. (MOPCO), titled “Recovering the Activity of Ammonia Synthesis Catalysts”. Abdel Atty gave an overview of his company and its activities in the Egyptian and international markets. He discussed how his company’s team tried to recover the ammonia production due to the decline of ammonia synthesis by optimizing the parameters of the catalyst. “The catalyst maintains a very good activity that is even better than expected after 14.3 years of service,” he concluded.

The second insightful presentation titled “OPEC World Oil Outlook (WOO 2022)”, was given by Mohammed Attaba, Downstream Oil Industry Analyst at the Organization of the Petroleum Exporting Countries (OPEC). He provided an overview of oil, gas and petrochemicals demand in the global scene and the required investments. Attaba said that “global gross domestic product (GDP) is projected to increase by 3% per annum on average, rising from around \$133 trillion in 2021 to almost \$270 trillion in 2045.”Moreover, Attaba elaborated that OPEC expects lower costs for renewables and batteries. “So based on this fact, global primary energy demand is forecasted to continue growing by 23% to reach 351 million barrels of equivalent per day (mmboe/d) in 2045,” he said.

Haitham Ramadan Omara, Director of Department at Sidi Kerir Petrochemicals Company (SIDPEC) made a presentation on “Optimization of High Density Polyethylene (HDPE) Reactor Using PSDS of Chromium Catalyst”. Omara provided a study on how “to detect the appropriate particle-size distribution of chromium catalyst used for manufacturing high density polyethylene with the required properties and without exposure to high manufacturing risk by high consumption of pre-polymer or elevating the temperature of the final reactor.” He concluded that implementing these techniques can increase production at lower costs.

Manu Van Leuvenhaege, Commercial Director, Sulzer concluded with a presentation on “Pygas Maximise Petrochemicals from Your Steam Cracker.” He gave a discussion on Pygas and how to use it to maximize petrochemical production from an existing steam cracker. Leuvenhaege also presented the typical Pygas processing steps and discussed how it can help upgrade existing systems to achieve added value and decarbonization objectives. He talked about aromatics extraction stating “Using the efficient solvent is the key to reducing the carbon footprint of an aromatic extraction unit, whether it is the extractive distillation unit or liquid extraction unit.”

Role Of Technology to Achieve Operational Excellence

On the third day, several informative presentations were given focusing on production optimization by using digital and intelligent solutions. One of the amazing sessions titled “Intelligent Solutions and The Role Of Technology To Achieve Operational Excellence” featured four innovative ideas for operational excellence.

Gustavo Andres Ariza, Global Product Line Champion – Progressing Cavity Pumping Systems & COROD Continuous Rod at Weatherford delivered the first one on “More Efficiency and Less Power Consumption by Using Permanent Magnet Motor as an Optimized Surface Drive Technology for PCP Wells in a Romanian Field.” He talked about the efficiency of deploying permanent magnet motor (PMM) technology to the artificial lift system in a Romanian field as a case study. He explained how it works to save energy, costs, and reduce industrial noise. “PMM reduces noise emissions from 73.2 decibels (db) to 39.85 db, energy usage [by] 9.74%, saves \$5000 in electricity and \$38000 in annual OPEX,” Ariza ended.

Also, a presentation titled “Multi-phase Virtual Flow Metering: a Step Change in Production Management” was presented by Shaksham Mishra, Production Operations Engineer at Schlumberger. He discussed OLGA online production management system which uses digital twins and how it efficiently in improves operational processes. “In a well calibrated system, the digital twin is capable of providing accurate of providing accurate flow estimates for multi-phase flow system,” Mishra said. He mentioned the various OLGA applications and how it works.

Rabih Bou Rached, CEO & Founder, FEDS drone Powered Solutions, delivered a presentation on “Inspecting Fare stack while Operational - How Drones are Increasing Flare Stack Inspection Efficiency and Reducing Downtime”. He mentioned the key role played by drones to inspect flare gas while it is operating in shorter time saving workers’ life. He explained the features of drones provided by his company. “FEDs-drone is more than a service provider. We are in the business of improving operations, saving lives, and eliminating unnecessary downtime,” Bou Rached elaborated.

A presentation called “Integrated Technologies for Improving Asset Integrity and Production Enhancement” concluded the session. It was introduced by Aarti Dange, Customer Experience Leader, Emerson Automation Solutions. She explained how integrated technologies can ensure asset integrity and overcome variable corrosion and erosion. Dange mentioned some effective technologies that enable experts to predict possible corrosions, monitor processes, and initiate quick responses to these corrosions. “[Monitoring corrosion helps] increase production by 1% because of decreased planned and unplanned shutdowns,” Dange concluded.

FORWARD-LOOKING PARTNERSHIP MODELS FOR NEW ENERGY INVESTMENT LANDSCAPE

Egypt is increasing its liquefied natural gas (LNG) exports to help solve Europe's energy challenges. The Ministry of Petroleum and Mineral Resources declared that Egypt aims to export \$8.5 to \$10 billion worth of natural gas during the fiscal year 2022/23. The third edition of the EGYPS Finance and Investment in Energy Conference provided insights from global energy experts on investment opportunities in light of Egypt's strategic roadmap to establish itself as a regional energy trading hub and exporter of gas and LNG globally.

Capitalizing on Investment Opportunities

The current energy crisis has provided a great opportunity for certain regions to move their resources to the forefront of global energy distribution. Nasser Al Hajri, Senior Vice President Non-Operated Assets for Mubadala Energy provided his insight on this matter and how investing in the right technology is a key factor. Al Hajri says that "by 2050, oil & gas will still represent 50% of the energy mix. The energy transition is not easy, we should rely on technology that helps accelerate the process. All kinds of investments in hardware & software are required".



Engineer Alaa Elbatal, Chief Executive Officer at Egyptian General Petroleum Corporation, provided a deep dive into the potential investment opportunities in the energy landscape. "We are now modernizing our activities to decarbonize our activities, so we are busy working on a lot of angles to fit with all models. We are keen on improving the investment environment & provide facilities to our partners," Elbatal elaborated.

Ross Cassidy, Vice President Middle East, and North Africa for Wellience Energy Analytics, expresses his views on the Egyptian oil and gas landscape by mentioning that "Egypt has long been considered a very attractive investment destination for upstream oil & gas. The importance of the region has grown in the past year given the events and the tightness of the gas market. Digitalization will play a very important role on the emission reductions side."

Solving Europe Gas Supply

While the European Union (EU) has been quick to tap into its natural gas reserves, its ability to maintain robust LNG imports and increase investments in alternative energy sources will be crucial in the coming years. Anastasios Vlassopoulos, CEO and Head of the E&P Business Unit of Hellenic Petroleum Upstream, gives his views on how to examine strategies to solve Europe's gas supply problem over

the short and long term. "We need gas as it is the only fuel that can be used everywhere across the value chain. We want to reduce the reliance on coal. It is important to take into consideration carbon capture & storage (CCS) in any operation," said Vlassopoulos.

Rouzbah Fazlinejad, Managing Director, and Head of MENA Oil & Gas of Houlihan Lokey provided his insight on the required investment needed to allow Europe to end its dependence on Russia. He indicates that "more investments must be made; however, investors prioritize the projects that they are going to invest in. Governments should put the right incentives into place as investors compare the returns from the traditional sources' projects to source new upcoming projects".

Paul Sullivan, Senior Vice President Global LNG & FLNG of Worley, discussed with other energy leaders the targeted investments needed to solve the European gas crisis. "We have been working on improving the carbon footprint of LNG in terms of production, transportation, and regasification for the last 6-8 years by spending around \$10 billion. Improving technology on Carbon capture is a solution for improving carbon footprint. EU has provided support in many countries in Europe to build their projects".

Dr. Lamia Abo Shahba, General Manager of Gas Market Activities at EGAS, acknowledges the need to secure alternative supplies amidst the current geopolitical unrest. "There is a need to start a dialog with the eastern Mediterranean region. We realized that our aspiration to reach Europe cannot be achieved without having the proper communications to make sure that we are unlocking the gas resources needed".

Accelerating Decarbonization

With the world's energy needs expected to grow dramatically over the next decade, governments are exploring new ways to secure energy supplies and infrastructure. Participants at a panel discussion, under the title "Accelerating decarbonization and energy security through public-private partnerships," examined how public-private partnerships can help build long-term infrastructure projects while minimizing direct state capital spending.

Tameer Nasser, Managing Director Northeast Africa of Baker Hughes, mentioned: "The problem in decarbonization is to have the right business case. In some discussions with banks, the tone is changing toward the transition in the oil and gas field. They are now looking to finance the transition journey as a whole."

Mateus Da Costa, Director of Exploration and Research Innovations of ANPM, stated that "Governments can play an important role by taking part in the direct investment through building partnerships. At the same time, international investors can bring new technology and knowledge to encourage and build these partnerships even more."

David Chi, Vice President of Egypt Assets and Country Manager of Apache, said "Our industry is the main driver in how humanity progresses. We are one of the biggest drivers. We are the foundation for pharmaceuticals, agriculture, and other aspects of life. We need to continue to provide energy and produce it in a responsible manner. Financial institutions should not just demonize us, and everyone needs to look at it from a bigger picture."



EQUALITY IN ENERGY CONFERENCE HIGHLIGHTS GENERATION Z INCLUSION



On the final day of the Egypt Petroleum Show (EGYPS 2023), the event included an Equality in Energy conference, which featured a number of engaging sessions and panels across the day. As the industry walks through its decarbonization journey, the oil and gas existing and future employees remain committed to achieving net-zero ambitions. Therefore, it becomes important to develop the skills of existing employees and to expand the recruitment programs to attract millennial and generation Z graduates, as the industry creates transparent recruitment practices offering its workforce clear career progression, flexibility, and pay transparency.

The conference started with Petra Angstmann, Senior Vice President of Global HR at Wintershall Dea, delivering a speech in which she talked about what the workplace will look like in the future. Angstmann explained the importance of equal pay. "We pay our employees equally, regardless of gender," she stated, adding that this helps a company gain employees' loyalty and at the same time show stakeholders their commitment to equality.

Building a Net-Zero Ready Workforce

In the first panel, Moath Al Rawi, ARGAS' CEO; and Gaydaa Elfakahany, Head of HR and Administration Division at thyssenkrupp Industrial Solutions Egypt, talked about the ways to prepare employees for a net-zero future. Al Rawi talked about the challenges facing the workforce and their reaction to the energy transition. Al Rawi highlighted reaching a net-zero future "to get to that point, we will need qualified people who would be able to develop."

Meanwhile, Elfakahany talked about the skills needed for the transition and ways to retain talent and skills amid the surrounding competition. Elfakahany highlighted the privilege of having young people in Egypt, who can drive the transition. "For Egypt of course there is the opportunity of youth, because 60% of the population is of young age, and that is a big opportunity," she said pointing out that this is a challenge as well. "This young generation

actually needs a specific kind of education to support their upskill for the future and for employment. Vocational learning as well as experiential learning is also something that needs to develop a lot."

Harnessing the Power of Change Management for an Agile Culture

The second panel provided a discussion platform for Brandy Jones, Vice President HR at Apache; Latifa Aal Said, Global DEI Director & TPS HR Director MENATI at Baker Hughes; Edgar da Costa, Director of Finance, Procurement, and Information & Communication Technology at ANPM; Sherif Aboelghait, General Manager, Procurements and Supervising HR Division at ENPPI; Celestina Raggi, Vice President of HR for Middle East & Africa at Emerson; and Ahmed Farid, Regional HR Manager at Shell.

The session talked about motivating people to join the industry. Moreover, the distinguished panelists highlighted the role of the leader to make the change more successful, assessing the culture, skills, and needs of the workforce to achieve the industry's goals.

Attracting Millennials and Generation Z

This panel featured ways to attract millennials and Gen Z to the energy industry, highlighting their needs for a purpose as well as a flexible work environment. The panelists included

Manal Messiha, Vice President of Customer Satisfaction & Quality at Schneider Electric; Aldo Costantini, General Manager & Managing Director at Energean AQP; Abubakr Ibrahim, Vice President & General Manager at IPR Energy; Salma Al Hajeri, Regional Vice President, East-Med & North Africa, Operations MENA & Russia at Mubadala Energy; and Soukaina Chefchaoui, Legal Counsel for North Africa, ENGIE.

Chefchaoui, who represented the voice of the youth, talked about their expectations and the challenges they face in the workplace. The panel also featured the importance of inclusion, as having different generations is significant for the development of the energy industry.

Lightening Talks

Another presentation titled "The digital future: closing the skills gap" was presented by Fatema Choudhury, Chief Operating Officer of Magellan X. Fatema discussed how to equip the energy sector's workforce with the digital skills necessary to succeed in the 21st century. "Digital literacy becomes increasingly vital in the ESG space because more companies are recognizing that they have to integrate technology in their operations to make it more efficient, transparent and sustainable, in addition, it helps organizations understand their data and measure their ESG performance," said Fatema.



A presentation by Juliette Murray Lamotte, Middle East and North Africa Human Resources Manager at SLB, was titled “Managing the Unconscious Bias in Pay and Promotion” to explore the steps that businesses and individuals can take to ensure unconscious bias is properly addressed. “At SLB, we put people first because people are the spirit and pulse behind everything we do and everything we want to achieve” she explains.

Susanne Mikhail Eldhagen Regional Director UN Women Office for the Arab States discussed “Creating an Equitable, Diverse and Inclusive Culture for a Greener Future.” Susanne discussed the MENA region paradox, which is one between educational attainment and employment, explaining “this is a region with a very high educated cadre of women but at the same time a very low labor force participation.” According to Susanne, this gap causes not only financial losses but also human development losses overall. The proportion of female graduates from STEM in the MENA region is higher than any other region worldwide, therefore there will be a loss of opportunity unless we pull these educated women into the industry.

Gender equality and the role of women in the clean energy transition

The final panel of the EGYPS 2023 Equality in Energy Conference was entitled Gender equality and the role of women in the clean energy transition. The panel discussed the importance of equality and women empowerment in promoting a successful transition to clean energy and achieving the United Nation’s SDGs.

The panelists included Eleanor Rowley, Managing Director Egypt at Capricorn Energy, Amru Alabidi, Senior Vice President Oman, UAE, Iraq and North Africa at Worley, Lamé Verre, Co-founder & Board Co-chair of Lean-in Equity & Sustainability and Marla Wright Global Business Development Manager at Bechtel.

Lamé starts the discussion by addressing what the workforce of the future looks like for the sector in terms of gender equality, “the workforce of the future is not just a gender question but a talent issue, so it’s really about what is the energy industry’s value proposition to the market.”

Amru discussed his journey through the energy industry and emphasized that it’s all about people, beliefs and emotions rather than KPIs and profit. “As a leadership team our responsibility is not to direct and tell people what to do, but rather creating the right environment for individuals to feel comfortable and excited to share their point of view.”

Eleanor talked about the opportunities and challenges that women and managing directors face in the region. “I find women at all levels of the organization in Egypt, from entry levels to directors. I am not the only female managing director in the energy industry in Egypt, there are three of us” she said.

Celebrating Diversity: Equality in Energy Awards

The equality in Energy Conference was concluded by the Equality in Energy Awards Ceremony. The awards were divided into three categories, celebrating outstanding talents in the industry.

The first category of the awards was the Women in Leadership, which recognizes exceptional women leaders in the energy industry with proven leadership and project management skills for their growth and success personally and professionally. The winner was Shahira Osman, Regional Branded Workshops Channel Manager, Chevron. The winner of the highly commended award was Omnia Bekheit, Investment and Financial Planning General Manager ANOPC.

The Award for STEM Star of the Year was awarded to Marwa Maghraby Process Engineer at ENPPI. Meanwhile, Mariam Shreif, Imperial College student, was named as the highly commended finalist. This award category recognizes high potential female students from across the world who are currently pursuing a degree in Science, Technology, Engineering, and Mathematics (STEM) with an active interest to pursue a career in the energy sector.

The final category of awards was the Nex-Gen Female of the Year, which was awarded to Lamees Sultan, Offshore Site Engineer at bp. The highly commended award for this category was awarded to Maureen Amir, Completions Engineer at bp. This award category recognizes high performing individuals from the global energy industry with demonstrated potential for being a future leader within the business

PAVING THE WAY FOR SUSTAINABILITY IN THE ENERGY SECTOR’S FUTURE

The EGYPS 2023 Sustainability in Energy Conference has been an international platform that brings together global energy leaders as well as sustainability and HSE experts. It was a perfect venue for exploring how oil and gas operators are integrating sustainability practices into their business models and workplaces ensuring a positive impact on the planet, their employees, and the communities in which they operate.

The EGYPS 2023 Sustainability in Energy Conference began with a keynote speech by Ali Abo Sena, Chief Executive Officer of Egypt Ministry of Environment, who shed light on Egypt’s strategy to achieve its Sustainable Development Goals in line with Vision 2030 and the upcoming developments that will be on focus during the next COP 28 in the UAE. Abo Sena referred to the success of the COP 27 in Sharm El Sheikh. “We were able to establish the loss and damage fund which have been discussed over the last 17 years, said Abu Sena.”



Sameh Sabry, Senior Vice President & Managing Director of Wintershall Dea Egypt gave another interesting keynote speech on “Driving sustainable performance in challenging market conditions.” Sabry stresses that more resolute actions need to be taken to maintain a sustainable future in this challenging market. “In Wintershall Dea, we think we need to do more for the future. We believe that carbon management and storage, as well as hydrogen production, could be one solution which is helpful for the survival and existence of our industry in the future. This is an area where we think our industry should evolve into.”

Sabry concluded his keynote speech, stating that sustainability is a key to competitiveness not only the survival of the industry.

Streaming Operations to Tackle Climate Change, Net-Zero Target

A series of panel sessions took place throughout the day. The first panel discussion was titled “Streaming Operations to Tackle Climate Change and Net-Zero Target”. During the panel, Denisse Abudinen, CEO of ENAP Siptrol and General Manager (GM) at ENAP Siptrol Egypt, indicated that “From the beginning, the shareholders need to understand that trying to be easy going on the environmental sustainability is not a luxury investment. It is a part of the business.”

Paul Mayland, Chief Operating Officer of Capricorn Energy, has pointed out that “Stakeholders, governments, and investors are more receptive to understanding the role of offsets when they see the backdrop when

you’re trying to do everything you possibly can within your control to control your own emissions and reduce them over time. But to achieve net zero you face certain challenges and that’s where a meaningful goal for offsets can be placed.”

Continuing the discussion, Anas Aljuaidi, Chief Executive Officer of MMEC Mannesmann, said “Egyptian people have a very open mindset when it comes to the construction. We achieved [a] 35% [reduction] of construction activities and carbon emissions by implementing very smart technologies to reduce emissions.”

Digitalization as an Enabler of Decarbonization

Another panel discussion discussed the role of “Digitalization as an Enabler of Decarbonization”. “Digitalization is revolutionizing the industry. It is a journey, and we are learning, our customers and suppliers are learning. What is vital in the future is how do we shape the public and private relationship and understanding towards the upcoming solutions to make things work as fast as we like them to work,” said Alexander Kajos, Vice President for Downstream at Nalco Water.

Steve Freeman, Head of Energy Transition, SLB carried on the discussion by stressing that “We need to be able to bring out more energy with zero emissions. We need the technology to do that and so therefore digital is essential to do that.”

Furthermore, Samir Elkareish, Vice Chairman Energy Transition of the Egyptian Natural Gas Holding Company stated that “We consider that digitalization can provide a comprehensive platform to afford the solutions of the decarbonization to reduce the carbon footprint of the oil and gas industry. We expect to leverage the vision of our colleagues to assist us and accelerate the energy transition in the oil and gas sector.”

Abderrezak Benyoucef, Head of the Energy Studies Development of OPEC pointed out that “digitalization will be very important in the

near future based on two fronts. The first front will be measurement of the emissions and the second front will be tracking and reporting. Digitalization is one of the best solutions to provide the transparent data but also contribute to reduce emissions in an effective way.”

The Road to North African and East Mediterranean Cooperation

Another panel of the conference titled “Building partnerships to drive CSR progress across Sub-Sahara Africa, North Africa and the East Mediterranean” was moderated by Ali Hegab, Oil and Gas Consultant. The panellists strategized on how to cross-collaborate to promote CSR initiatives, give back to the community, and assist governments in North Africa and the East Mediterranean with economic and social reform.

The panellists included Nael Darwish, Chairman of the South Valley Egyptian Petroleum Holding Company (GANOPE); Brad Boyd, Senior Vice President of Corporate Resources at Methanex Corporation; and Dalia Wahba, Deputy CEO and Chief Investment Officer at Hassan Allam Utilities. They began by sharing their respective company’s successful CSR initiatives and projects.

Blake Gendron, Vice President of Investor Relations & ESG IMPACT Segment at NESR, commented on the role of government in fostering better cooperation between companies and communities. “We need governments to provide geo-political and regulatory stability,” he said.

Nicolas Katcharov, Country Manager of Energean Egypt, added: “CSR gets people closer, improves loyalty, moral satisfaction which keeps them focused on what they have to do every day in their profession.”

For her part, Laila Chemane-Chilemba, Vice President Socioeconomic Development - Mozambique LNG Project at TotalEnergies pointed out that the companies have the investment but the communities have the know-how.



Enhancing HSE through R&D

Undoubtedly, safety hazards have been a concern within the oil and gas industry due to their ability to cause lost income and most importantly fatalities or injuries to workers on-site. In this sense, a panel titled "Scaling R&D to unlock technology and enhance industry safety", highlighted the role technology can play in creating safer worker environments.

The panel was moderated by Ali Hegab, Oil and Gas consultant and comprised HSE executives and digital energy leaders including Mohammed Bahatem, Senior Vice President of HSSE & Asset Integrity Management at Mubadala Energy, James Garvie HSE Advisor at Chevron and Mathew Thomas, Senior Industry Consultant at Hexagon.

Mohammed Bahatem gave a few remarks on technology tools that achieve autonomous work including virtual reality, robotics, machine learning and augmented reality. He said, "Digitalization is not an objective it is an enabler."

When asked about one important thing that enhances safety, Mathew answers: "Leveraging the potential of the data that is available to us is the key factor in enhancing safety."

James Garvie discussed the four main themes that Chevron consider when it comes to health and safety; communication, automation, inspection and new process and materials.

Dialogue on Developing the Oil and Gas Safety Culture

The final panel of the conference discussed "Advancing the Oil and Gas Safety Culture" and was moderated by Hussein El Ghazzawy, Chairman of Coxswains for Marketing & Commercial Training. In this session, panellists discussed what are the key indicators of a strong safety culture and how they are working towards a safety program that emphasizes on the health and safety of employees.

Yasser Hassan, Safety and Environment Manager at Shell Egypt initiated the discussion by commenting "We have to learn how to fail safely. It's important to put all controls in place and that we try standardize our



system with the industry and international organizations."

Alexandra Thomas, Managing Director Egypt at Neptune Energy, discussed how to create the right safety culture and environment where people feel safe. "In Egypt, Neptune has first set the expectations, secondly, make sure people are recognized for their competence and thirdly, properly embedding the system."

Wael Amin, Head of HSE at Kuwait Energy Egypt, started with alarming statistics from the International Labour Office concerning health and safety. Wael then insisted that it is the managers role to lead by example. "The fastest way to destroy safety culture is when managers don't walk the talk, the credibility of the safety culture will then be in danger," he added.

Jessica Jackson, Vice President of Environment, Health and Safety at Apache Corporate, stated that "If you look at the lifecycle of an oil and gas worker, becoming complaisant is a problem, especially that many have been on the jobs for years." Jessica added that this is not a "one size fits all challenge; every culture and operating are being different."

Global Sustainability in Energy Awards

The Sustainability in Energy Conference was concluded by the Sustainability in Energy Awards Ceremony.

The awards were divided into five categories, addressing the oil and gas sector's successful projects and leaders that aim at creating a better and safer future.

The first category of the awards was for the Best Environmental Project of the Year.

The winner was Petrobel which was awarded for the desalination plant freshwater withdrawal reducing project. The winner of the highly commended award was Baker Hughes for their integrated watershed management and soil carbon content enhancement project.

The award for Best CSR Project of the Year was awarded to ANOPC for their corporate social responsibility project. Chevron won the award for its highly commended project for empowering women to be future innovators.

Badr El Din Petroleum Company was awarded the Best Health Project of the Year for its initiative in food safety and hygiene management in remote locations. The highly commended project award was given to Rashid Petroleum Company for their health risk assessment (HRA) project.

The Best Safety Project of the Year was awarded to TotalEnergies for their Suez Depot technical truck inspection centre project. Meanwhile, Methanex got the highly commended project award for its process safety management framework created for the Egyptian oil and gas sector project.

The last category of the awards was for the Best Digitalization Project of the Year. The winner was the Egyptian Liquefied Natural Gas (ELNG) company for the HSE barrier management dashboard project. Meanwhile, Baker Hughes won the highly commended award for their multi-sensor data assimilation and model-driven analytics project.



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THE EGYPTIAN OIL & GAS SECTOR'S ROAD TO NET-ZERO CARBON



BY JOLLY MONSEF, MARIAM AHMED & YOUSTINA MOUNIR

The oil and gas sector is working through a strategy where energy transition and emission reduction are major parts. Accordingly, the sector has adopted a vision and plan to convert to low-carbon energy sources and reduce carbon emissions through strategic pillars which are otherwise known as energy security, financial sustainability, and governance of the sector.

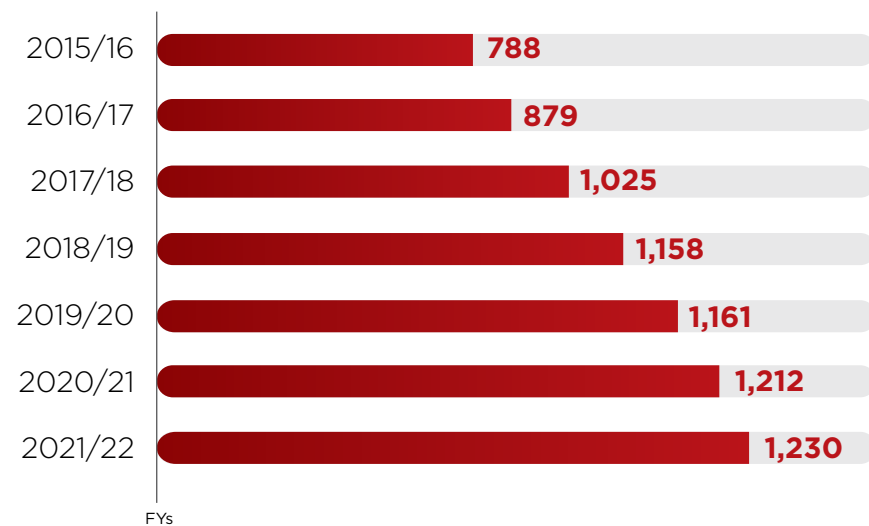
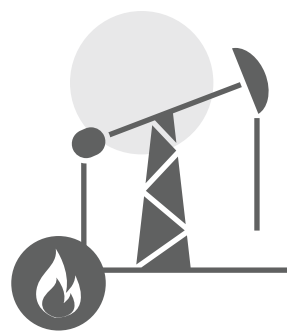
Also, within the framework of the oil and gas sector's strategy for energy transition and emissions reduction, the sector adopts a plan to support decarbonization according to six main pillars which are: energy subsidy reform, low carbon natural gas as a complement to renewable energy, improving energy efficiency, decarbonization, renewables & bioenergy and hydrogen.

NATURAL GAS AS A TRANSITIONAL FUEL

Natural gas is considered to be a "bridge fuel" in the transition from coal to a near-zero emission energy system. In this context, the oil and gas sector had promoted and encouraged new natural gas discoveries over the past years to increase its production to meet the market's needs.

The new discoveries have always been driven by the Ministry's work strategy to create an attractive environment for international oil companies to pump their investments to search for gas and oil in Egypt.

Natural Gas Production Growth (Thousand boe/d)



Natural gas consumption has been significantly and continuously increasing in light of Egypt's vision to diversify its energy mix, enhance the transition towards green fuels, and boost decarbonization in the energy sector.

The natural gas consumption share is expected to reach 65% during FY 2022/23. Moreover, natural gas usage has expanded in many industrial sectors to increase its added value, including petrochemicals and fertilizers production.

THE EGYPTIAN OIL & GAS SECTOR'S EFFORTS

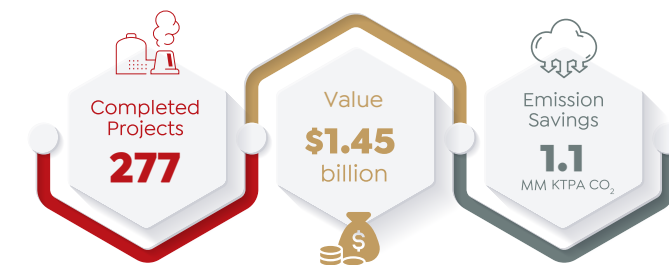
The sector has adopted a solid plan to achieve sustainable development, decarbonization, and transition to low-carbon energy sources. In this regard, the Ministry has determined to ascertain this plan by promoting

energy efficiency, gas flaring and emission reduction projects, and natural gas delivery and CNG initiatives.

Energy Efficiency

The sector considers energy efficiency to be the most cost-effective way to achieve emission reductions. It has succeeded in obtaining significant projects.

ENERGY EFFICIENCY PROJECTS UNTIL MID-FEBRUARY 2023



ANNUAL ENERGY SAVING



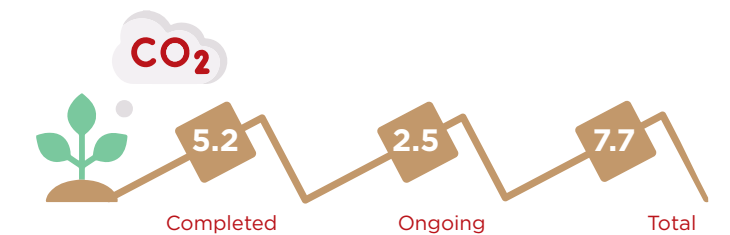
Gas Flaring & Emission Reduction

Egypt has made great progress toward reducing emissions in the local industry through implementing several low-carbon infrastructure projects.

GAS FLARING PROJECTS UNTIL DECEMBER 2022



EMISSION REDUCTION PROJECTS UNTIL MID-FEBRUARY 2023 (MM TPA CO₂)

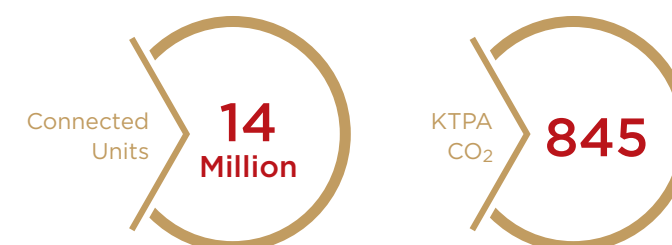


Natural Gas Delivery & CNG Initiative

Considering natural gas as a clean and decarbonized fuel, the oil and gas sector took a strategic decision more than 20 years ago to intensively use it

as a major energy source, and this is in line with Egypt's strategy for energy transition and boosting decarbonization.

NATURAL GAS DELIVERY*



*Since starting the activities

CNG INITIATIVES*



THE ROLE OF IOCS & INTERNATIONAL INSTITUTIONS

Collaboration and cooperation with all international oil companies (IOCs) and international institutions is a key enabler to create synergies across the six decarbonization pillars. The Egyptian oil and gas sector companies signed a number of memorandum of understanding (MoUs) with many

international companies from different countries specializing in energy transition, decarbonization, and hydrogen fields. Moreover, there is coordination with major international institutions to support the sector's efforts in the field of emissions reduction.

Signed MoUs with International Companies

Cooperation with International Institutions



Signed MoUs & Agreements

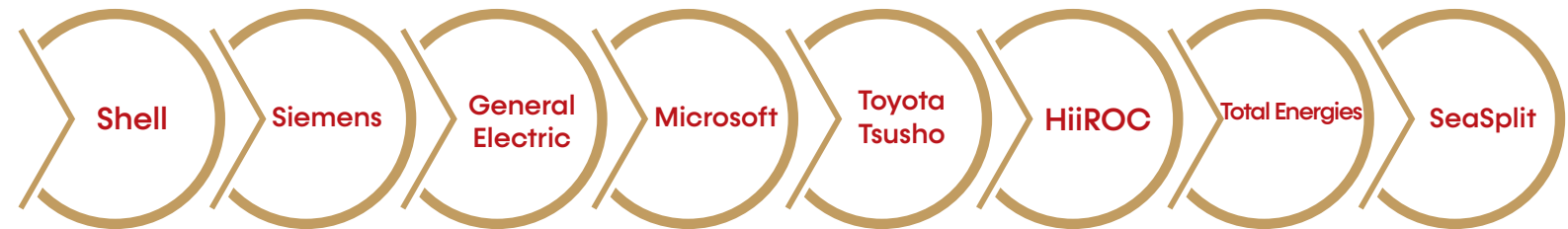
The Ministry of Petroleum and Mineral Resources (MOPMR) was keen to promote its efforts in decarbonization efforts through signing a number of MoUs and agreements with international companies and institutions in

recent major events such as Decarbonization Day at COP27 which took place in November 2022 and Egypt Petroleum Show (EGYPS) 2023 in February 2023.

Decarbonization Day at COP27

Within the Decarbonization Day at COP27, the oil and gas sector signed seven MoUs with different international companies specialized in sustainability and decarbonization fields.

Signed MoUs with IOCs During Decarbonization Day



EGYPS 2023

On the sideline of EGYPS 2023, the Minister of Petroleum and Mineral Resources, Eng. Tarek El Molla witnessed the signing of MoUs and agreements for executing a number of decarbonization projects.

MOPMR Signed an MoU for Low-carbon Projects

Agreement for Executing Decarbonization Projects



The sustainable and decarbonized economy will be possible as countries are working on its requirements, including technological innovation, effective capital reallocation and financing structures, and collaboration among, public and private sectors. Governments, the private sector, and international institutions are working on achieving an energy transition. The Egyptian oil and gas sector has an essential role in advancing decarbonization pathways to contribute to satisfying both local and international energy demands with lower carbon intensity. Moreover, the

MOPMR will continue working to execute projects to realize its vision and strategy for emission reduction. A key decarbonization solution is carbon capture, utilization, and storage (CCUS), a suite of technologies that Egypt adopted in collaboration with its strategic partners to achieve its goals and plans.



PROMOTING GENDER DIVERSITY IN THE INDUSTRY

BY RANA AL KADY

To begin with, it is a well-known fact that women are notably underrepresented in the majority of the oil industry. A male-dominated sector is one in which women make up fewer than a quarter of the employment environment. Oil, gas, and mining are examples of extractive industries that typically fit these criteria. Women continue to be underrepresented in these fields generally, particularly in senior positions.

General Overview

Firstly, the lack of suitable individuals, family care obligations, gender-based discrimination within the sector, and social conditioning were some of the most often mentioned difficulties by respondents. In addition to developing formal measures to increase female participation, executives aiming to reduce gender imbalance inside their oil and gas firms may want to think about providing flexible working hours, childcare benefits, mentorship opportunities, and pay transparency.

While more women get advanced degrees in engineering and other technical fields, there is a significant opportunity to tap into the growing pool of female candidates who have the necessary requirements. Conventional justifications for a male-dominated industry that depended on stereotypical thinking are getting more and more outmoded as the sector becomes increasingly computerized and less dependent on intensive manual work.

Moreover, although roughly half of all Egyptians are women, approximately 21% of the labor force is made up of women. In order to encourage economic success in Egypt, it is crucial to empower women and include them as potential contributors to the industry. The International Monetary Fund (IMF) estimates that increasing female labor force participation to male levels and providing equal chances for economic success will boost GDP by about 34%.

Addressing the Situation

Furthermore, according to research, businesses with greater female representation are more efficient than those with less variety. Let's say you wish to hire more women for your available offshore oil and gas positions.

In such a situation, it's imperative to offer a secure workplace, a flexible schedule, benefits, the chance for promotion, and a balance between work and personal life. As males have historically controlled the offshore business, changing this fact will need open communication, training, and a strong willingness to make changes.

A logical entry point into the oil and gas business has been made possible by the rise in young women pursuing STEM fields such as math, science, and engineering. There are now fewer women in managerial, safety, and technical jobs in offshore oil and gas operations than there are in on-land professions. As a result, it is more difficult to fill unfilled offshore positions with women because there is less support, sleeping space, and a backup employee to assist cover schedules. As suggested by a Renewable Energy and Energy Efficiency Specialist, "[Women] are more likely to take opportunities that are less comfortable and have more challenges just to get a chance to work in a male-dominated industry and make a point. I think this by itself encourages more women to work in such fields and eventually will accommodate to the needs of women."

If businesses are taking the initiative in ensuring that women in offshore occupations are employed, advanced, and paid appropriately, these obstacles may be overcome. Businesses must confront discrimination against female employees, give rigorous safety training, establish mentorship programs, allow flexible work schedules, and define clear criteria for their offshore positions.

Supporting strong female role models in management, administration, and other roles may also be a game-changer in creating an offshore environment that is more gender-balanced. As we promote the inclusion of



more women in oil and gas professions, it's essential to dispel common misunderstandings about the sector. Thus, it is crucial to aid female business owners to grow their enterprises and boost productivity. Training, business incubators, employment fairs, and company-to-business networking events are used to achieve this.

Next Steps

Some oil and gas companies have established diversity objectives for their hiring teams as well as internal support networks. The AXIS Promise, which has been signed by organizations including BP, Shell, Spirit Energy, Expro, and Worley, calls for businesses operating in the energy industry to comprehend the root causes of their gender imbalance and take proactive measures to reduce it.

By investing in programs for young people, especially girls, in the fields of science, technology, engineering, and mathematics, businesses may also take a proactive approach to future-proofing their talent pipeline. More women may enter and advance in the oil and gas industries with the help of apprenticeships, mentorship, and training programs, but managers must also provide high-performing women the opportunities they need to advance in their careers.

Beyond everything, a fundamental transformation in mindset is necessary to address the dearth of diversification in the oil, gas, and energy industries and to motivate more women to pursue jobs in this field.

A logical entry point into the oil and gas business has been made possible by the rise in young women pursuing STEM fields such as math, science, and engineering.

SAFER OIL & GAS INDUSTRY THROUGH AI-DRIVEN THERMAL IMAGING

BY FATMA AHMED

Providing a safe working environment is essential within the oil and gas industry. This is what oil and gas companies are working on all the time, along with other practices from exploration to refining. Ensuring safety should include the workers, working places, surrounding environment of operations as well as society. As new technologies are emerging continuously, thermal imaging has evolved. This technology is a good choice for early detection of any possible leaks, damages, or corrosion. By being powered with artificial intelligence, thermal imaging becomes more efficient.

What Is Thermal Imaging?

A report prepared by TechNote explained that "objects around us give off heat to some degree, and that heat is made up of long wavelength infrared radiation that the human eye cannot see. Thermal imaging uses a sensor to convert the radiation into a visible light picture. Not only does this picture help us identify objects in total darkness, or through dense smoke, but the sensor information can be used to measure temperature differences as well." This process is done by using thermal cameras which are capturing the image through infrared radiations emitted from objects.

Thermal Imaging Empowers Oil and Gas

Thermal imaging makes it easier for operators to reveal if there are any possible risks of having mechanical issues quickly even before it happens, especially in the areas in which it is hard to reach or see. It is considered a very good technique for monitoring any operation process among the various industries in the oil and gas sector. One main benefit of this technology is that it could save time and costs as well as provide safe and efficient operation.

By using artificial intelligence, thermal imaging becomes more efficient and smarter. Nilg. ai reported that deep learning algorithms enabled the models to automatically extract the most relevant features for each task. It also can "help operators mitigate these risks and improve efficiency through the automation of remote monitoring and control processes," Azena website stated.

For example, by using AI video analytics, thermal images can detect any problem in real-time, determine the size of leaks, and detect liquid levels in tanks to overcome if it rises above the allowed level or falls below a critical level. So tracking such leaks can allow companies to reduce their carbon footprints, especially for those emitted from the pipeline that transfers gases from oil and gas production sites into the refineries.

Thermal Imaging Applications in Oil & Gas

There are many aspects in which infrared can be used in cameras within the oil and gas industry. A report published by ndt.net, thermal cameras can be used in inspecting oil and gas transportation means including containers, pipes, and valves for 24 hours. It is useful when it comes to chemical facilities by spotting any equipment working with an abnormal temperature range – providing predictive maintenance that can be fixed before any incident occurs. As mentioned above, this allows companies to report inspection findings in order to ensure worker safety required by the governments. Moreover, thermal cameras can be easily used in different ways. It also can be installed on drones, helicopters, multicopters, and smaller planes. The thermal cameras can then send their images back to you on the ground, which allows workers to inspect remote areas without exposing to hazardous situations. Thus, it can be said that thermal management is one of the best tools for operators to control and maintain any possible risks.



Thermal imaging makes it easier for operators to reveal if there are any possible risks of having mechanical issues quickly even before it happens, especially in the areas in which it is hard to reach or see.

By using AI video analytics, thermal images can detect any problem in real-time, determine the size of leaks, and detect liquid levels in tanks to overcome if it rises above the allowed level or falls below a critical level.

WOMEN AGENTS OF CHANGE IN ENERGY TRANSITION ERA

BY AMIRA SAYYED

The entire energy industry is on a journey of change, switching towards clean energy in hopes of curbing the severe impacts of climate change. The global drive for energy transition has revived hopes for creating more opportunities for women, leaving no one behind. In the meantime, there is still a gender gap in the energy sector's workforce, a matter that requires more effort to narrow the gap.

From an economic perspective, closing such a gender gap is part and parcel of economic development, casting a positive shadow over the total Gross Domestic Product (GDP).

According to official figures, the number of people employed in the sector will grow by more than 30 million over the next 30 years thanks to the energy transition. Consequently, women are to benefit from new job opportunities and find new sources of income. It is also worth mentioning that access to clean energy is to help improve the quality of women's lives in numerous ways.

In 2022, the World Bank conducted an assessment study dubbed "Toward More and Better Jobs for Women in Energy", revealing that in many MENA countries, women represent less than 10% of the energy workforce and an average of 5% in technical fields or management.

In the meantime, the International Monetary Fund (IMF) pointed out that the exclusion of women comes at a cost to the overall economy. The IMF also highlighted the great economic potential of handling gender gaps, a matter that may add up to over 20% of the region's Gross Domestic Product. Numerous studies stressed that companies with gender-diverse boards are more productive and more profitable.

It is estimated that the global energy market will grow 44% by 2050 and the recent World Bank study showed that from the lowest to highest scenarios, the impact will be creating 1.4 to 3.8 million net jobs in Egypt alone over the period of 2020-2050.

In this context, equality in the energy workforce and energy transition should be

harnessed in parallel within a holistic, broader approach to give an extra boost to economic performance.

Egypt has been making strides in empowering women in the energy domain. In previous statements, Minister Tarek El Molla pointed out that women empowerment is part and parcel of Egypt Vision 2030, stressing the ministry's adherence to this vision.

According to Minister El Molla, Women currently represent 30% of the total number of the ministry's employees, and more than 33% of them are in leading positions.

He added that the ministry has established a communication unit to achieve equality in cooperation with the National Council for Women. This unit provides the necessary mechanisms and policies to guarantee social and economic rights as well.

In further efforts, Egypt launched the "Closing the Gender Gap Accelerator" in July 2020, and the National Council for Women (NCW) was chosen as the national coordinator for the project. This project is the first of its kind in the Middle East and North Africa, resulting in the public-private collaboration model supported by the World Economic Forum.

Generally speaking, the accelerator aims at economically empowering women through four main aspects, namely to close gender gaps in remuneration between and within sectors, to prepare women for the post-COVID-19 world of work, to advance more women into management and leadership positions and to enable women's participation in the labor force.



From an economic perspective, closing such a gender gap is part and parcel of economic development, casting a positive shadow over the total Gross Domestic Product (GDP).

Equality in the energy workforce and energy transition should be harnessed in parallel within a holistic, broader approach to give an extra boost to economic performance.

DEMARCATIION OF MARITIME BORDERS AND HOW EGYPT CAN BENEFIT FROM IT

By Eng. Mohamed Abdelraouf - Production General Manager in Khalda Petroleum Company

In international law, the high seas are open to a country for fishing as well as travel and all nations have equal rights on the high seas, and each must respect the rights of other nations. During war, international law allows belligerents to continue trading with other neutral nations, and with belligerents. These times, ships of neutral countries are supposed to transport commerce prohibited in war, (illegal goods), and belligerent countries decide which items to consider war contraband.

There is a long debate between countries about the law of the sea. Between 1986 and 1982, the United Nations issued the laws of the sea, which may satisfy all countries. This work led to the adoption of the Law of the Sea Convention in 1982. More than 100 member states of the United Nations system have signed the convention. This agreement does not become official until 60 countries ratify it

In general, this agreement gives countries the exclusive rights to explore for oil and gas up to a distance of 350 nautical miles (645 km) from the coast, and to fish within 200 nautical miles (380 km) from their coasts, and within these two hundred nautical miles, which is called the region.

Exclusive economic, all countries have high seas rights for navigation and aviation, but coastal states control all economic resources in this region. Most countries agree that the mining right is not considered part of maritime freedom, but that right can be established by treaty provisions. For this, the agreement did not become effective until 1994. Among the countries that did not ratify were the US and Canada. Although most of the texts of the treaty are already followed now.

In August 2020, Egypt signed an agreement to demarcate the maritime borders with Greece, as part of Cairo's plans to benefit from the wealth of the Mediterranean.

During the signing of the agreement, the exclusive economic zones between the two countries were designated as a first step, and the decision to demarcate the borders with Libya, which was published in the Official Gazette, came in order to preserve the gas

wealth in the Mediterranean region, amid the successive discoveries of oil companies.

Sources in one of the concerned international bodies confirmed that after the official announcement of the demarcation of the maritime borders, the next step is to prepare and equip areas within the Egyptian borders for offering to international companies for oil and gas exploration operations.

The sources pointed out that the eastern Mediterranean region enjoys great interest from international oil companies, due to the huge gas reserves that it embraces, in addition to its proximity to the most important consumption regions (Europe), seeking to diversify supplies away from Russia.

The reserves of the Mediterranean basin are estimated at more than 200 trillion cubic feet of gas, and what has been discovered so far represents only 10%. Egypt is working to increase natural gas production and encourage international companies to implement oil and gas exploration projects, as part of its efforts to become a regional energy center.

Before the end of the year, Egypt settled the file of demarcating its maritime borders, by a presidential decision drawing the western borders in the Mediterranean, after similar steps during the past years with Saudi Arabia, Cyprus and Greece.

President Abdel Fattah El-Sisi stated the importance of the maritime border demarcation agreement between Egypt and "Cyprus and Greece" in the Mediterranean Sea and Saudi Arabia in the Red Sea. President

Abdel Fattah El-Sisi indicated that the Zohr natural gas field would not have been discovered had the borders not been demarcated, in addition to the fact that these agreements provided \$120 billion annually for the operation of power plants.

President El-Sisi said, "If it were not for the demarcation of the maritime borders, the exploration companies would not have been able to work in these areas, and Thank God it was great for us to discover the Zohr field, and without it, Egypt would have been in darkness, because we do not have the savings of \$ 2 billion per month at the old gas prices to operate power stations." As for the prices, the current cost may reach \$10 billion per month to purchase the gas required to operate power plants in Egypt, so that electricity is not cut off.

In April 2016, an agreement was signed to delineate the maritime borders between Egypt and Saudi Arabia, during the visit of King Salman bin Abdulaziz Al Saud to Egypt. This agreement consisted of three articles, namely:

Article one:

"The maritime border line between Egypt and Saudi Arabia starts from the common meeting point of the Egyptian, Saudi, and Jordanian maritime borders in the Gulf of Aqaba, which will be agreed upon later between the three countries. The maritime border line between the two countries extends from the joint meeting point of the maritime borders mentioned in Paragraph (1) of this Article to the point of the marine border line No. (61) according to the geographical coordinates of the following points of the border line between the two countries: The World Geodetic System 84 (84-wgs) is the reference for the geographical coordinates of the marine boundary line points mentioned in this article."

Article two:

"Attached to this agreement is a map compiled from the British Admiralty maps No. (158) and No. (159) on a scale of (1:750000) signed by both countries, showing the maritime border line between them. This map is for illustration only. The main reference for the border line between the two countries shall be the geographical coordinates of the locations of the points of the maritime border line mentioned in Article 1 of this agreement."

Article three:

"This agreement shall be ratified in accordance with the legal and constitutional procedures in both countries, and shall enter into force from the date of exchange of ratification documents. The Secretary-General of the United Nations shall be notified of this agreement for registration in accordance with the provisions of Article (102) of the Charter of the United Nations after its entry into force."

EGYPT EMPOWERS WOMEN INCLUSION IN ENERGY INDUSTRY

BY SARAH SAMIR

Egypt has been working on supporting the economic empowerment of women and ensuring their inclusion in different sectors. This comes as President Abdel Fattah El-Sisi believes in the significant role women play in the development of the country and their ability to achieve what is assigned to them. Today, the Egyptian cabinet includes seven female Ministers, equivalent to almost 25% of the total Ministers. In line with the country's empowerment strategy, the Ministry of Petroleum and Mineral Resources (MoPMR) is working on empowering women in the oil and gas sector.

Equality in Energy

Having women in the workplace, means including different mindsets and talents in the team, which leads to astonishing results. According to the World Bank "Egyptian women represent 50% of the country's population. A number of global studies confirm that businesses and companies that close their gender gap enjoy increased profitability. This means that when more women work, economies grow."

Accordingly, the Egyptian oil and gas sector, as one of the main contributors to the economy, is keen to ensure the inclusion of women in the workplace. Therefore, the MoPMR has championed different initiatives in order to elevate the role of women within the sector, leading the country to experience a 30% boost in the number of women employed in the oil and gas sector.

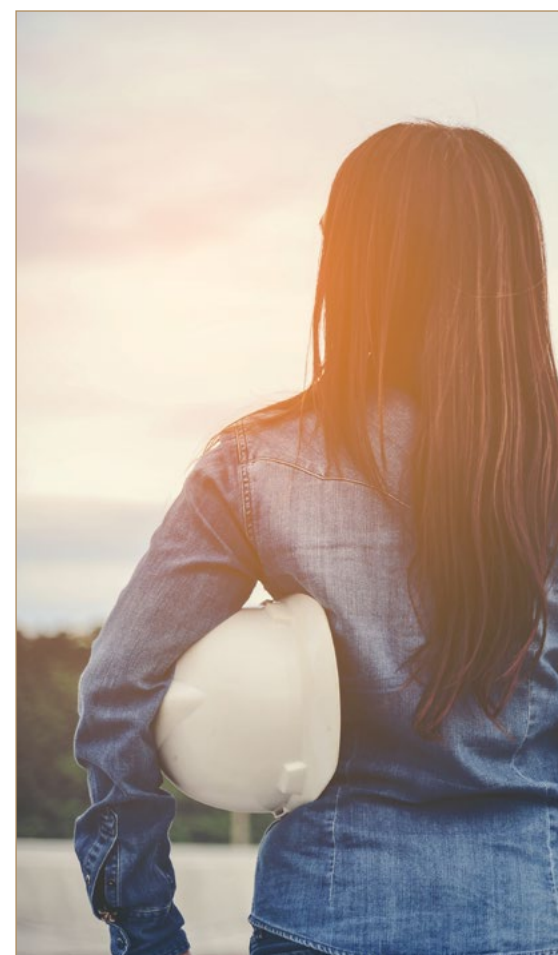
Egypt Includes Women in Energy

The MoPMR has been walking the path of women inclusion through initiatives that empower and encourage women to develop in the sector. The ministry works in line with Egypt's objectives and the leadership vision, since 2017, as it adapted an initiative to recognize and celebrate the achievements of outstanding women, who are a part of the global energy industry, during the Egypt Petroleum Show (EGYPS) through the Global Equality in Energy Conference and Awards.

Moreover, the Ministry, together with the National Council for Women, created the Equal Opportunities Unit, restructured in 2017, as Minister of Petroleum and Mineral Resources, Tarek El Molla, issued Resolution No. (1686), to activate its role and to provide the needed measures; policies; and mechanisms to ensure equal Opportunities between all employees.

In October 2022, Egypt's first Women in Energy Network was inaugurated. The network is supported by Egypt Oil & Gas and is part of the EOG Committee with the full alignment and support of El Molla. The network connects women across the energy industry in Egypt, as it aims to help create a platform that inspires and supports these women throughout their career paths in the energy industry.

As the Egyptian oil and gas sector works to connect and empower women through different means, the women working in the energy industry are expected to achieve outstanding progress throughout their career path. The efforts are not over, as the ministry is still working on including and attracting women to the oil and gas sector, where they will be fully supported.

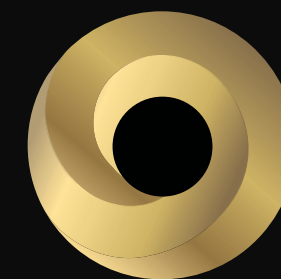


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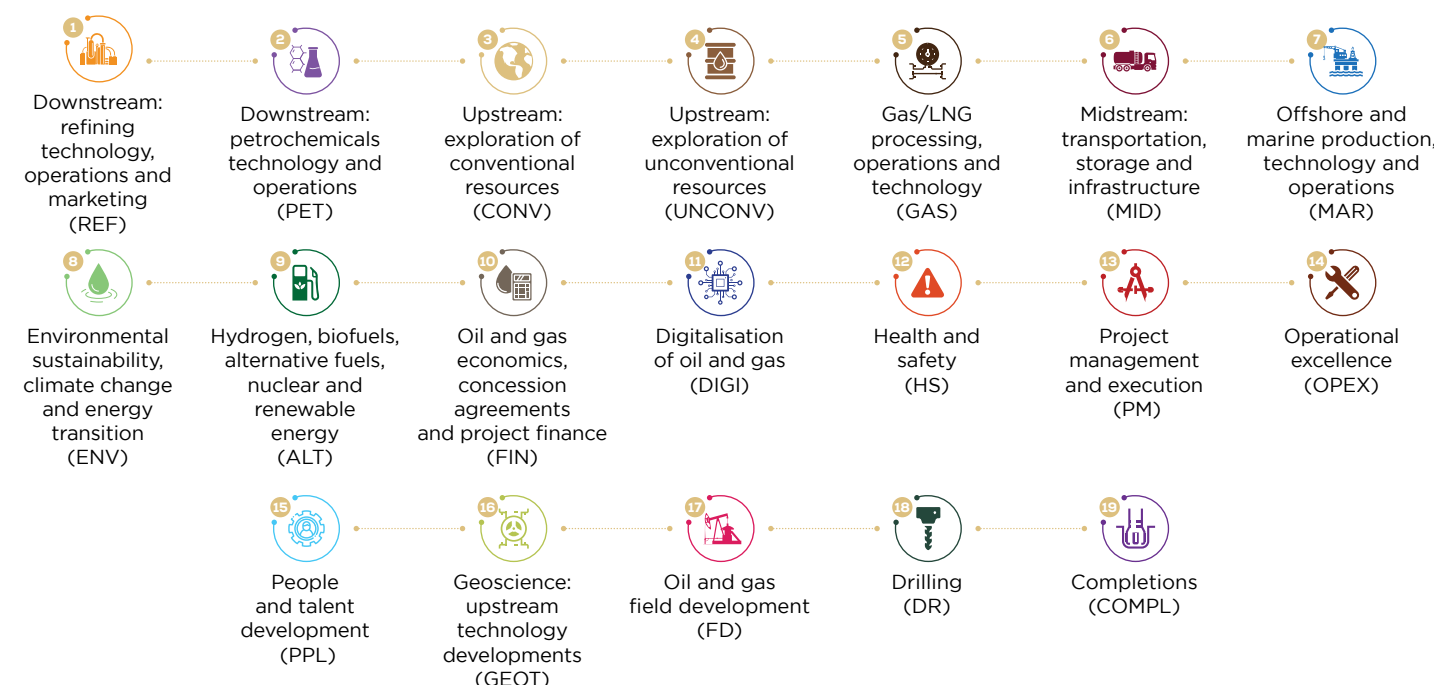


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HOW GLOBAL CRISES HAVE BECOME THE ULTIMATE NEMESIS OF WOMEN’S EMPOWERMENT

BY NADER RAMADAN

When war erupted between Ukraine and Russia, corporate leaders, government officials, and military experts from the West were up in arms, revved up to support Ukraine in pushing Russian troops out of the country. Yet, as the war brews on, another group of activists, policymakers, and concerned global citizens have also sounded the alarm, feminists.

This war, just like any other conflict from ancient to modern history, has forced women to suffer from its consequences a whole lot more than their male counterparts. Women both inside and outside of the Ukraine conflict zone, including refugees, have had to bear the burden of this ongoing conflict as it continues without even the slightest sign of a peaceful settlement. Homes where women are the main bread earners and single mothers in Ukraine have had to suffer the most. A report from UN Women states that the “effects have been particularly negative for single mothers and women-headed households – in Ukraine women comprise more than 70% of heads of households – especially those with less diversified sources of income or that are dependent on one income. In Europe, some estimates show that living in energy poverty was more likely to affect women and single-parent families because of their lower average income, which is the case in Ukraine where women make up 92.2% of single parents. Of the 5.6 million European households experiencing a lack of access to modern energy services in 2017, it was estimated that 38% were women-headed households.”

The story of Ukraine is one that is constantly being told and, as a matter of fact, in this world, there is not just one Ukraine, but many. And with many Ukraines, come many victims who are “guilty” of no other “crime” other than not being male.

The plight of women goes beyond just daily developments in territorial conflicts, but the long-term effects of corruption, and internal strife between ethnic and religious groups within the same country, especially in some places in Africa, a continent that is rich with a profuse amount of natural resources and yet suffers from the worst in energy poverty seen all over the world. As highlighted in the study titled Women and children living in Areas of Armed Conflict in Africa: a geospatial analysis of Mortality and Orphanhood: “African women of childbearing age are at a substantially increased risk of death from nearby high-intensity armed conflicts. Children exposed to conflict are analogously at increased risk of becoming orphans. This work fills gaps in literature on the harmful effects of armed conflict on non-combatants

and highlights the need for humanitarian interventions to protect vulnerable populations.”

These existing conditions in regions such as sub-Saharan Africa and Southeast Asia are due to the inability of global organizations and policymakers to enforce international laws to ensure political stability within these regions while ensuring equal access for women to food, shelter, and the necessary energy resources needed for basic survival.

With war-mongering and financial gain dictating foreign policies and politics, insufficient attention is given to the potential that sustainability can create to alleviate the suffering of women and children. “According to the World Health Organization, 3.2 million people worldwide, disproportionately women and children, die prematurely every year from illnesses attributable to household air pollution caused by cooking and heating with inefficient and polluting fuels and technologies, compromising sustainable development and entrenching gender inequalities,” according to the UN Women study.

Swimming against the merciless tides of inequality and oppression caused by patriarchal social norms and the ravages of war, women are in need of both protection and empowerment more than ever before, due to their vulnerability to the negative consequences of global crises. Embracing policies that protect women are essential not only as a fundamental pillar of social justice but also in securing the future prosperity of the next generation of humanity since the role of women is essential for raising tomorrow’s leaders, politicians, activists, and business cadres. Though conditions may currently seem dismal, the modern age offers new opportunities to set the foundations for a better future by exploring how women and all those who are vulnerable can be made immune from the negative impacts of global crises and political strife. For the first in history, platforms can be established and these issues can be addressed with an open mind as long as those in political leadership are ready to ensure that civil rights are protected on a national and international level. The



efforts of activists and global leaders have turned women empowerment from being a just cause to an international law with the potential to be enforced on a global level.

With the new push for women’s empowerment, there is light at the end of the tunnel. Though a lot of work is yet to be done, humanity has taken its first step on the long and arduous path of establishing social justice for women and victims of global conflict.

With war-mongering and financial gain dictating foreign policies and politics, insufficient attention is given to the potential that sustainability can create to alleviate the suffering of women and children.

Swimming against the merciless tides of inequality and oppression caused by patriarchal social norms and the ravages of war, women are in need of both protection and empowerment more than ever before, due to their vulnerability to the negative consequences of global crises.

A GLANCE AT ENERGY EFFICIENCY FOR UPSTREAM OIL, GAS COMPANIES

Now with the gradual increase in energy costs, oil, and gas companies face a lot of pressure to improve their environmental performance and reduce their carbon footprint. Hence, upstream companies can achieve this by implementing energy efficiency tools. These tools can help to reduce energy consumption, lower operating costs, and improve overall efficiency.

One of the most effective energy efficiency tools for upstream companies is an Energy Management System (EMS)

EMS can monitor and optimize energy usage, identify areas of inefficiency, and implement solutions to reduce consumption. This can be implemented by using real-time data to control processes, such as optimizing production and reducing equipment idling time. By doing this, the upstream company can reduce energy consumption and increase efficiency, which ultimately translates into cost savings.

Variable Speed Drives (VSDs).

VSDs can be installed in pumps, compressors, and other equipment to control the speed of the motor and reduce energy consumption. This means that the equipment only uses the amount of energy required for the task at hand, reducing overall energy consumption.

Heat Recovery Systems

It’s one of the tools for reducing energy consumption. These systems can capture waste heat from flue gas or other sources and use it to preheat water or other fluids, reducing the energy required to heat them. heat exchangers, which transfer the heat from the waste gas to the fluid, reducing the amount of energy required to heat the fluid.

Renewable Energy

Solar or wind can also be used to reduce reliance on fossil fuels. Upstream companies can incorporate these sources into their operations to reduce their carbon footprint and improve their environmental performance it can be used at power equipment and facilities, reducing the traditional energy sources availability.

Advanced Process Control (APC)

Used to optimize processes and reduce energy consumption. APC uses real-time data and analytics to optimize processes, reducing energy consumption and improving efficiency. by using data to optimize production and reduce downtime, ultimately leading to cost savings and improved performance.

Energy-Efficient Lighting

Upgrading to energy-efficient lighting, such as LEDs, can reduce energy consumption and improve lighting quality.

Insulation

Insulating pipes and tanks can reduce heat loss and lower energy requirements for heating and cooling to improve efficiency.

Smart Metering

Also, provide real-time data on energy consumption, and take action to reduce energy usage. And reduce energy consumption.

Efficient motors can reduce energy consumption, and improve performance. High-efficiency motors can reduce energy consumption by up to 30%, resulting in significant cost savings.

Conclusion

In conclusion, energy efficiency tools are a must nowadays and an essential part of improving environmental performance. They help to reduce energy consumption, lower operational costs, and improve overall efficiency. Reducing our carbon footprint is essential for a more sustainable future.

By Chemist Wael Essam El Rayes - CEO Deputy Assistant - General Petroleum Company

THE SECRET BEHIND THE SUCCESS OF EGYPS 2023

The sixth edition of the Egypt Petroleum Show (EGYPS 2023), held on February 12-15, was widely considered a stunning success. Taking place under the theme “North Africa and The Mediterranean: Supporting Sustainable Global Energy Supply and Demand”, many have suggested various reasons as to why this edition of the EGYPS was so successful. This includes:

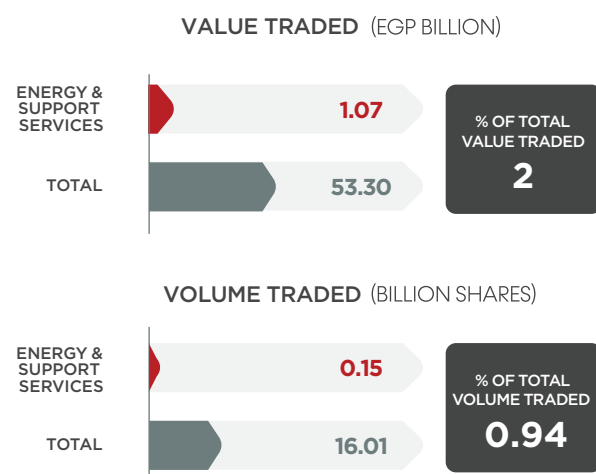
- ✓ The opening of this conference and exhibition was attended by President Abdel Fattah El Sisi, demonstrating the importance and meaning of this conference to the Egyptian government and the Ministry of Petroleum and Mineral Resources.
- ✓ The increase in conference duration from three to four days gave an opportunity for the Strategic Conference to take place over two whole days, offering industry experts the chance to share their ideas and their expectations regarding the future of petroleum and clean energy.
- ✓ The conference came after COP27 and the success of the Decarbonization Day organized by the Ministry of Petroleum and Mineral Resources to attract interest in carbon emission reduction projects showing the ministry’s interest in climate and carbon reduction methods.
- ✓ The tremendous amount of effort Minister of Petroleum and Mineral Resources Tarek El Molla invested in planning for this conference from the first day, after its 5th edition EGYPS 2022, and selecting members of Egypt’s oil and gas sector to represent the conference’s high committee. Furthermore, during all four days of the conference, the minister worked hard, managing to attend 38 meetings and discussions.
- ✓ The media of the Ministry captured all lessons learned from the previous five editions of the conference and implemented these lessons in this edition. I think this time was the best in arrangements as well as the use of digitalization and technology for booking, sending all information for the conference and timing for the strategic & technical sessions. Updates were delivered in a timely manner regarding every single change to enable attendees to manage their time and attend the necessary sessions.

From all of the above, we can conclude that EGYPS 2023 succeeded and has become an important platform for petroleum and gas leaders, influencers and service providers in record time.

Also, we can notice that from the statistics of this success if we mention some of them: more than 32,000 visitors, about 270 speakers, 70 strategic and technical panels comprising over 80 industry specialists and more than 500 national and international companies have shared their activities and services in the oil industry.

By Sabry El Sharkawy - GM & Managing Director - El Wastani Oil Company

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



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

NATIONAL DRILLING		
CURRENCY	CLOSE PRICE	YTD PRICE CHANGE (%)
USD	-	-

ALEXANDRIA MINERAL OILS CO.		
CURRENCY	CLOSE PRICE	YTD PRICE CHANGE (%)
EGP	7.47	↑ 18.2

EGYPT GAS		
CURRENCY	CLOSE PRICE	YTD PRICE CHANGE (%)
EGP	36.03	↓ 3.15

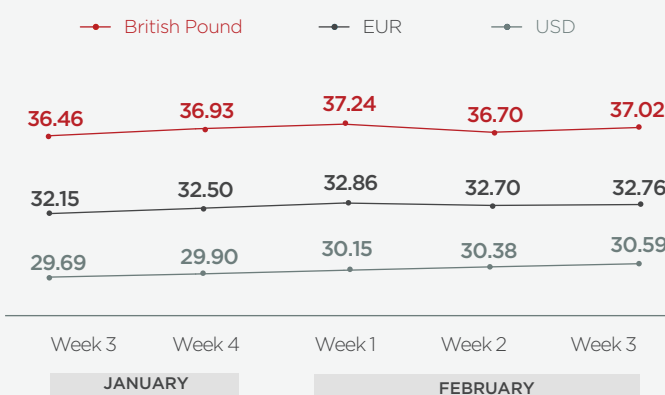
SIDI KERIR PETROCHEMICALS		
CURRENCY	CLOSE PRICE	YTD PRICE CHANGE (%)
EGP	15.67	↑ 19.44

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

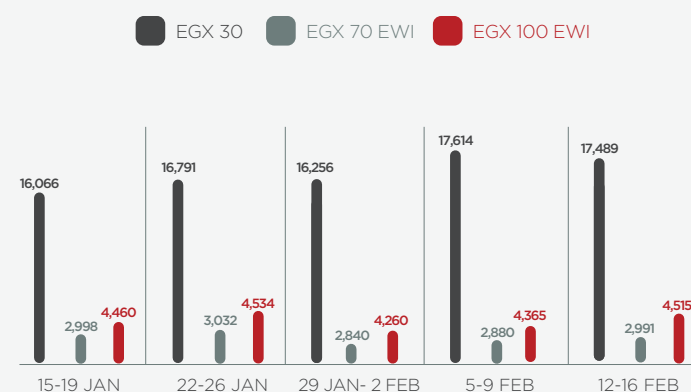
03 MAIN ECONOMIC INDICATORS



04 EXCHANGE RATES



05 CAPITAL MARKET INDICATORS



01 THE EGYPTIAN CABINET APPROVED 13 DRAFT OIL COMMITMENT AGREEMENTS



COMPANIES EGPC, EGAS & Number of IOCs

AFFILIATED AREAS

EGPC

THE WESTERN DESERT

West of Wadi El-Natron, East of Siwa, West of Al-Maghra, West of Abu Gharadig & Alam Al-Shawish East

THE GULF OF SUEZ

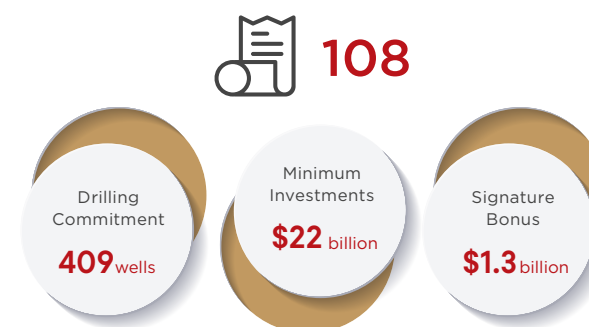
West Amer & South Lagia

EGAS

THE MEDITERRANEAN SEA

North Fayrouz Offshore, North Rafah Offshore, Thebes Offshore, Bellatrix-Seti East, Northeast Arish & North Tabia Offshore

02 SIGNED PETROLEUM AGREEMENTS OVER 8 YEARS*



*Until 2022

03 DAMIETTA LIQUEFACTION PLANT OPERATIONAL RESULTS

SINCE STARTING OPERATIONS IN 2005

Producing & Exporting The 500th LNG Cargo

SINCE OPERATIONS RESUMED IN FEBRUARY 2021

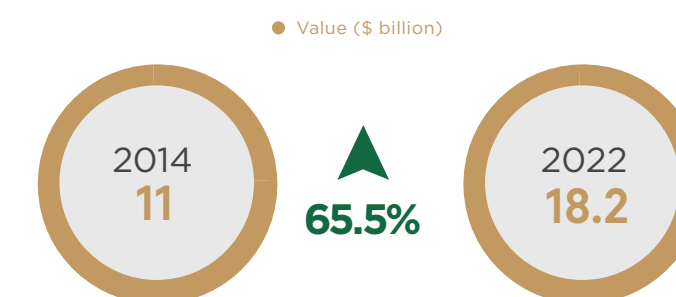
LNG Exports 7.2 mmt of which 4 mmt were exported in 2022

04 EGYPTIAN OIL & GAS SECTOR'S INVESTMENTS OVER 8 YEARS*



*Until 2022

05 EGYPTIAN OIL & GAS SECTOR'S EXPORTS GROWTH



06 INTERNATIONAL OIL PRICES

	BRENT PRICES (\$/BBL)	OPEC BASKET PRICES (\$/BBL)	NATURAL GAS PRICES (\$/MMBTU)
14 December	82.7	79.97	6.43
30 December	85.91	81.29	4.48
06 January	78.57	76.15	3.71
23 January	88.19	85.45	3.45
03 February	79.94	79.42	2.41
17 February	83	81.73	2.28

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 