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THE OIL REFINING INDUSTRY AND ENERGY TRANSITION INITIATIVES

The Cover

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The Organization of Arab Petroleum Exporting Countries (OAPEC) was founded on the basis of the agreement signed in Beirut, Lebanon on 9 January 1968 between the governments of Kingdom of Saudi Arabia, the State of Kuwait and the (then) Kingdom of Libya. The agreement stipulates that the Organization shall be domiciled in the City of Kuwait.

The principal objective of the Organization is the cooperation of the members in various forms of economic activity in the petroleum industry, the determination of ways and means of safeguarding the legitimate interests of its member countries in this industry, individually and collectively, the unification of efforts to ensure the flow of petroleum to its markets on equitable and reasonable terms, and providing appropriate environment for investment in the petroleum industry in member countries.

In 1970 the United Arab Emirates, the State of Qatar, the Kingdom of Bahrain and the Republic of Algeria joined the Organization, followed by the Syrian Arab Republic and the Republic of Iraq in 1972, Arab Republic of Egypt in 1973, then the Republic of Tunisia in 1982 (its membership was suspended in 1986). Any Arab country which derives a significant share of its national income from petroleum is eligible for membership in OAPEC upon the approval of three-quarters of the member countries, including all three founding members.

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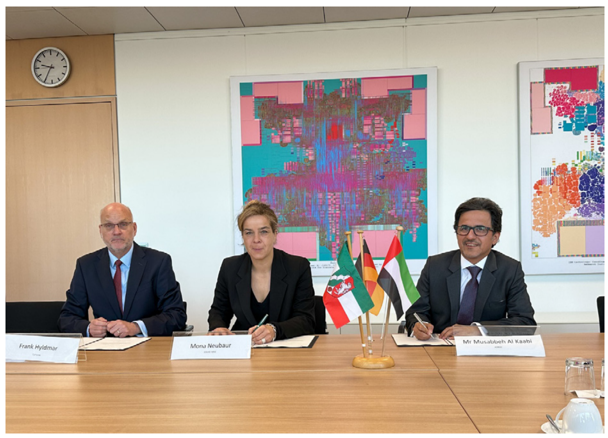

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- **OAPEC-Joint Ventures:**

OAPEC has sponsored the creation of four companies: The Arab Maritime Petroleum Transport Company (AMPTC), established in 1972 with headquarters in Kuwait City, the Arab Shipbuilding and Repair Yard Company (ASRY) established in 1973 with headquarters in Bahrain, the Arab Petroleum Investments Corporation (APICORP) established in 1974 with headquarters in Khobar, Saudi Arabia, the Arab Petroleum Services Company (APSC) established in 1975 with headquarters in Tripoli, Libya.

OAPEC'S ORGANS

The Organization carries out its activities through its four organs:

- **Ministerial Council:** The Ministerial Council is the supreme authority of the Organization, responsible for drawing up its general policy.
- **Executive Bureau:** The Executive Bureau is composed of one representative from each of the member countries, drawing recommendations and suggestions to the Council, reviewing the Organization's draft annual budget and submitting it to the Council, it also adopts the regulations applicable to the staff of the General Secretariat. The resolutions of the Executive Bureau are issued by the majority of two- thirds of all members.
- **General Secretariat:** The General Secretariat of OAPEC plans, administers, and executes the Organization's activities in accordance with the objectives stated in the agreement and directives of the Ministerial Council. The General Secretariat is headed by the Secretary General. The Secretary General is appointed by resolution of the Ministerial Council for a tenor of three years renewable for similar period(s). The Secretary General is the official spokesman and legal representative of the Organization and is accountable to the Council.
  The Secretary General directs the Secretariat and supervises all aspects of its activities, and is responsible for the tasks and duties as directed by the Ministerial Council. The Secretary General and all personnel of the Secretariat carry out their duties in full independence and in the common interests of the Organization member countries. The Secretary General and the Assistant Secretaries General possess in the territories of the Organization members all diplomatic immunities and privileges.
- **Judicial Tribunal:** The protocol of the Judicial Tribunal was signed in Kuwait on 9 May 1978 and came into effect on 20 April 1980. The Tribunal is competent to consider all disputes related to the interpretation and application of OAPEC's establishment agreement, as well as disputes arising between two or more member countries concerning petroleum operations.

THE OIL REFINING INDUSTRY AND ENERGY TRANSITION INITIATIVES

By: Jamal Essa Al Loughani
OAPEC Secretary General

The oil and gas industry worldwide is facing growing challenges that started at the beginning of the twenty-first century and intensified after the signing of the Paris Climate Change Agreement, which calls for a shift from fossil fuels to carbon-free energy by 2050. These challenges have led many investors to rethink taking any further steps and hindered them from moving forward in developing oil and gas projects, which will have serious repercussions on energy security in the future, according to the expectations of many specialized research centers.

In view of the ambiguity surrounding many of the issues of transition to a low-carbon energy system, such as those related to the development of future demand for petroleum products, and the legislative frameworks that governments will issue, it is certain that oil and gas will remain the most widely secure source among all other types of energy for many decades to come, and this transition, from our point of view, should be fair, smooth, and gradual.

In the past few years, many countries around the world announced programs to convert its oil refineries into low-carbon refineries, and implement CCUS technologies. Most of these programs were concentrated in Western Europe and North America.

As for OAPEC member countries, the oil refining industry has witnessed in the past decade the execution of pioneering projects aimed at producing high-quality products with specifications compatible with the latest international standards, through the construction of advanced refineries such as the "Jazan" refinery in the Kingdom of Saudi Arabia with a refining capacity of 400 thousand b/d; the Karbala refinery in the Republic of Iraq with a capacity of 140 thousand b/d; and the clean fuel project in the State of Kuwait, which includes developing the existing "Mina Al Ahmadi" and "Mina Abdullah" refineries and constructing the new Al Zour refinery with a refining capacity of 615 thousand b/d, to replace the "Mina Al Shuaiba" refinery that was permanently closed due to its age. This is in addition to revamping and upgrading projects of existing refineries in many member countries, with the aim of improving their flexibility to process heavy and various types of crude oil, adjusting their products structure in line with future forecasts on changing demand in global oil markets, such as the project to develop the "Ruwais" refinery in the UAE, the Sitra refinery in the Kingdom of Bahrain, and the Middle East refinery, MIDOR, in the Arab Republic of Egypt.

These developments came along with the announcement of national strategic plans to cut carbon emissions in line with the international trend towards decarbonization and transition to the use of clean energy. At the forefront of these initiatives are the two initiatives launched by the Kingdom of Saudi Arabia in October 2021, namely the "Saudi Green Initiative" and the "Green Middle East Initiative", to reach net-zero emissions by 2060, with investments amounting to about $187 billion, aiming at raising the percentage of electricity generated from renewable sources in the Kingdom from 1% to 30%. This is in addition to expanding the production of green and blue hydrogen and blue ammonia, and the installing of carbon capture and storage units.

It is also worth noting that the UAE has announced investing billions of dollars in projects to boost the production of renewable energy; maximizing energy efficiency in all energy-consuming sectors, including oil refineries; expand the production of green hydrogen, which is a natural source for low-carbon energy, and implement carbon capture and storage technology.

OAPEC Secretariat General, while constantly following up these developments, spares no effort in supporting these initiatives by publishing specialized studies and reports, holding conferences, seminars and coordination meetings in which industry experts exchange their experiences, expertise and strategic plans that would enable them to improve the performance of the oil industry to the aspired standards, and to maximize its competitiveness in international markets.

THE ARAB NEGOTIATING GROUP ON FOLLOWING UP UNFCCC DEVELOPMENTS HELD A COORDINATING MEETING

With the increasing interest of the international community in environmental and climate change issues, and based on the directives of the Organization's Council of Ministers, OAPEC Secretariat General is constantly and continuously following up on all developments related to the issues of the United Nations Framework Convention on Climate Change (UNFCCC) at Arab and international levels.

In this regard, the Secretariat General held a coordination meeting on 15 March 2023, chaired by HE Eng. Jamal Al Loughani, OAPEC Secretary-General, in the presence of Mr. Abdul Kareem Ayed, OAPEC representative at the Arab Negotiating Group, as well as representatives of the United Nations Economic and Social Commission for Western Asia (ESCWA), the Arab League, and the Arab Negotiating Group.

In his opening speech, OAPEC Secretary-General referred to the importance of the meeting and its connection to the reality and future of the petroleum industry. He added that it also reflects the keenness of the Secretariat General to prepare and qualify Arab negotiators, and highlights OAPEC's active participation in the Arab Negotiating Group, as the organization made strenuous efforts to coordinate the positions of the participating delegations in cooperation with Arab and regional organizations and concerned countries.

The meeting concluded by agreeing to hold an Arab event to prepare and qualify Arab negotiators, prior to the meetings of the UNFCCC subsidiary bodies, with the aim of highlighting the viewpoint of the Arab oil-exporting countries on methods of dealing with climate change issues.

OAPEC PARTICIPATES IN THE 10TH SESSION OF THE UNITED NATIONS GAS EXPERTS GROUP IN GENEVA, SWITZERLAND

OAPEC Secretariat General participated in the activities of the tenth session of the United Nations Gas Experts Group, which was held at the United Nations Headquarters in Geneva during the period 23-24 March 2023. Representatives of member states of the European Economic and Social Committee, the European Commission and a number of European and international institutions and organizations, including the International Gas Union, Hydrogen Europe, Global Gas Centre in Geneva, and the World Health Organization, as well as representatives of international oil companies, experts, and academics took part in the meeting.

The Secretariat General put forward its vision on blue hydrogen, by presenting a paper at the hydrogen session entitled “Prospects for Blue Hydrogen and Blue Ammonia in the Arab Region”, presented by Eng. Wael Hamid Abdel Moati, an expert in gas industries in the organization, along with representatives of the Hydrogen Council, the United Nations, and Hydrogen Europe.

OAPEC representative explained that Arab countries pay great attention to investing in hydrogen, to meet its expected future demand in major markets such as Europe and Asia, as well as to open a window for domestic demand in some sectors such as the industrial sector and the transport sector. He pointed out to the increase in the number of hydrogen projects announced in the Arab countries at the beginning of 2023 to reach 73 projects with a diversified portfolio that includes the hydrogen production, exportation, transportation through pipelines, as well as its use in various types of transport.

Blue hydrogen produced from natural gas with carbon capture (and its derivatives of blue ammonia) projects are of great interest to the Arab countries. There are 13 projects of this kind as the region is the least expensive in terms of blue hydrogen production compared to the rest of the world, as costs amount to $ 1.4 per kg, compared to $ 2.5-3 per kg globally.

A range of blue hydrogen and blue ammonia projects is being executed; they are the largest in terms of production capacity worldwide. These projects include the blue ammonia production project with a capacity of 1 million tons annually within the “Taziz” integrated industrial system in the Ruwais complex in the United Arab Emirates, which is expected to be operational in 2025. Also, a blue ammonia production project in the State of Qatar with a capacity of 1.2 million tons per year, which is expected to be operational in 2026. In addition to a global blue hydrogen production project in Jubail in the Kingdom of Saudi Arabia with a capacity of 153 thousand tons / year. These and other projects will enable the Arab countries to lead in the blue ammonia market, becoming its largest exporter by 2030. The Arab countries have begun to produce and export several pilot shipments of blue ammonia to major markets such as Japan, South Korea and Germany.

It should be noted that OAPEC has been participating in the meetings of gas experts at the United Nations since 2016 in order to enhance cooperation with international institutions, present its vision on the most important developments in the gas and hydrogen industry, and exchange views on energy issues of mutual interest.

ARAB MEDIA & ENERGY TERMINOLOGY BETWEEN MODERNITY & ORIGINALITY

By Ala'a Al Omran

It is no secret to anyone who follows energy news how much alienation there is in the Arabic terminology used in the discourse and related texts, whether media, academia or otherwise. With the growing popularity of social media and its global spread, it has become difficult to take time in finding appropriate renditions for the emerging terms in all aspects related to energy. As soon as a term comes to light, news agencies, social media and TV satellite channels receive and use it - often as it is - without improvement or translation of the meaning in many cases.

To start with, there are words whose use involves risks that may not be direct, such as the lenient use of the term "cartel" in our news language. The English word is derived from the Latin "Charta" meaning "charter", but the English word carries more negative implications as it suggests a bloc of a group working to divide the market to preserve profits- including all the negative meanings of monopoly. It is a mistake for some Arab media outlets to use this term freely while referring to organizations such as OPEC, as this is considered tacit approval of the monopolistic nature of the organization, which sidesteps the truth, especially in light of the introduction of bills such as NOPEC, which abbreviates the meaning of "No Oil Producing and Exporting Cartels" - that is, in Arabic, "No blocs for the production and export of oil."

And if we go back in memory to the beginnings, the oldest, clearest, and most common example is the names of petroleum products, between olefins, polyethylene, kerosene, asphalt, naphtha, gasoline, diesel, and others. Asphalt, for example, is a word of Greek origin, Asphaltos, meaning "to secure". Someone might say that they are just names, and at this point I just want to make it clear that I am not opposing the idea of borrowing from the original language, but at the same time, can't we just coin a fresh Arabic rendition for the names – especially that they are real and tangible substances of shape, texture and colour not just abstract ideas that are difficult to imagine and then translate?

If we move on to words that carry a more specific meaning, we find words such as: "quota" (which means a relative share or ratio) and "logistics" from the English "logistics" from the Greek logos, meaning mind or reason, which are common in our visual and written media and academia alike. Is it simply easier or is the foreign term that powerful that it imposed itself despite the existence of a clear equivalent in our Arabic language?

Let us take, for example, the new terminology in the field of environment. The COP, which is an abbreviation of the Conference of the Parties, is used as it is both in written and spoken Arabic, even in Arabic news bulletins. There is also wind "turbines" borrowed from the English "turbines" of French origin taken from Greek origin. Here I reiterate that there is no harm in borrowing, as languages have always borrowed from each other, but shouldn't we make some effort to try to find a corresponding term or expression that has some originality of the spirit of the Arabic language and contributes to its survival as a living, prosperous and circulated language at least among its speakers?

Why does our media flock to make it easy to borrow terms as they are from the original source texts, without looking for words that may be synonymous in our rich Arabic language? Just think about the subsequent circulation among the masses as a result!

There is another angle that is no less important than laxity in translating foreign terminology. There is also a danger inherent in what we might call "borrowing texts" from foreign sources and not just borrowing "terms" and then translating them literally without attention and without being careful of their significance. We often hear broadcasters of some well-known Arabic channels speaking about renewables as "alternative energy", which is a literal translation of the English "alternative energy", while the reality is that it is a complementary energy to the petroleum energy.

In such a context, the author of the original (foreign) text speaks from the point of view and logic of their countries. They use terminology that serves their interests, and in no way can we literally borrow the text as it is - and here I am talking specifically about the Arabic media - while the economies of our countries depend mainly on oil and its derivatives, which still - in practice - play the main and active role in the global energy mix.

In conclusion, it is imperative for our Arab media professionals, translators, and academics to take note of what is reported from non-Arab sources and domesticate the content in a way that is consistent with and serves the orientations and interests of our Arab countries. In this context, OAPEC has taken the lead in preparing the "Energy Glossary", which is rich in terms and explains their meanings in three languages: Arabic, English and French. The Glossary is available for those interested at the prestigious OAPEC library. On this occasion, we call for activating the role of the Arabic language academies and their coordination with the Arab media outlets to preserve the authenticity of our Arabic language while keeping pace with the rapid global developments in order to ensure that Arabic remains a modern yet original language of communication!

* *Views expressed in this article are those of its author*

KUWAITI (KIPIC) EXPORTS THE FIRST SHIPMENT OF SOLID SULFUR FROM AL ZOUR REFINERY

Kuwait Integrated Petroleum Industries Company (KIPIC) announced on Tuesday, 14 March 2023, the export of the first shipment of solid sulfur from Al Zour refinery, in collaboration with the global marketing sector of the Kuwait Petroleum Corporation. The official spokesman for KIPIC, Abdullah Al Ajmi, told Kuwait News Agency (KUNA) that the volume of the shipment is 44,000 tons, pointing out that the industrial island of the refinery received four oil tankers that day, which is unprecedented, in addition to receiving the first tanker to load solid sulfur for global markets.

Al Ajmi added that this achievement came a few days after launching operations at the second phase of the Al Zour refinery, which doubled the volume of global oil exports and established its position as an influential source in the global energy market and a major provider of sustainable supplies of petroleum products with high environmental specifications that comply with international requirements.

He explained that reaching the full global exporting capacity stage of all products is a historic event and a remarkable achievement not only in the history of the company but in the history of the Kuwaiti oil industry as a whole due to the large economic scale of the refinery.

He also referred to the role of Al Zour Refinery in securing new economic outlets for the Kuwaiti oil industry in global markets by providing stable and safe supplies of low sulfur oil products and achieving a strategic goal for the State of Kuwait to improve air quality.

He stated that the external export operations of the Al Zour refinery are carried out through the largest artificial island that was established in the middle of the sea, which is used to export liquid petroleum products through two loading platforms with four berths. The island is connected to Al Zour refinery by four pipelines under the sea, as well as a special berth for exporting solid sulfur products to all countries around the world.

IRAQ’S PRIME MINISTER INAUGURATES KARBALA OIL REFINERY

BAGHDAD, April 1 (KUNA) -- Iraqi Prime Minister HE Mohammad Al Sudani, on Saturday 1 April 2023, inaugurated the Karbala oil refinery which has a production capacity of 140,000 barrels per day (bpd). The prime minister’s office said in a statement, the refinery, built by South Korean firm Hyundai, can produce nine million liters of fuel a day, equivalent to more than half of Iraq’s daily imports of 15 million liters. The refinery also includes a power station with a capacity of 200 megawatts, with four units, each of which operates with a capacity of 50 megawatts, all of which are allocated to supply the refinery with its electricity needs, except for 60 megawatts that go to the national electricity grid, it added.

QATARENERGY TO PARTICIPATE IN IRAQ'S GAS GROWTH INTEGRATED PROJECT (GGIP)

DOHA, Qatar • 5 April 2023 – QatarEnergy has agreed to hold a 25% share in the Gas Growth Integrated Project (GGIP) - a multi-billion-dollar project aimed at monetizing and developing the natural gas resources of the Republic of Iraq.

The GGIP consortium will be composed of Basra Oil Company (30%), TotalEnergies (Operator - 45%), and QatarEnergy (25%), subject to the finalization of necessary contractual arrangements and obtaining customary regulatory approvals.

His Excellency Mr Saad Sherida Al-Kaabi, the Minister of State for Energy Affairs in the State of Qatar, the President & CEO of QatarEnergy, said: "We thank TotalEnergies for inviting us to partner with them and we thank the esteemed Iraqi Government for welcoming us to be part of this partnership. We are pleased to be part of this significant development, which is important for Iraq's energy sector, and we look forward to working with TotalEnergies and Basra Oil Company to progress it to fruition. I would like to express our appreciation to the Government of Iraq for their valuable support to reach this point, and for the trust they have placed in QatarEnergy as a reliable partner."

Signed in September 2021, the GGIP is a key strategic project that involves investing approximately $10 billion to design and construct facilities for recovering significant volumes of otherwise flared gas throughout the Basra region and supplying such recovered gas to power stations, as well as a seawater treatment and distribution system to supply water for injection into oil reservoirs for pressure maintenance purposes.

With extensive experience in large-scale energy projects, including seawater treatment projects, and a strong international partnership with TotalEnergies, QatarEnergy welcomes this opportunity to participate in such a key project for Iraq and its people.

ANNOUNCEMENT OF OIL DISCOVERY IN THE EXPLORATION WELL F1-82/04 IN LIBYA

PJSC «TATNEFT» LIBYAN BRANCH as the Second Party (Operator) with the National Oil Corporation (NOC) of Libya, being partners in an Exploration and Sharing agreement (EPSA IV), signed in December 2005, announced recently a new oil discovery in Contract Area 82 Block 4 in Ghadames Basin as a result of testing the new field wildcat well F1-82/04.

The exploration well has been drilled to a total depth of 8,500 feet and located approximately 330 km South of Tripoli.

The achieved flow rate is 1,870 BOPD from Devonian and Ordovician sandstones by certain choke size according to the Libyan legislation.

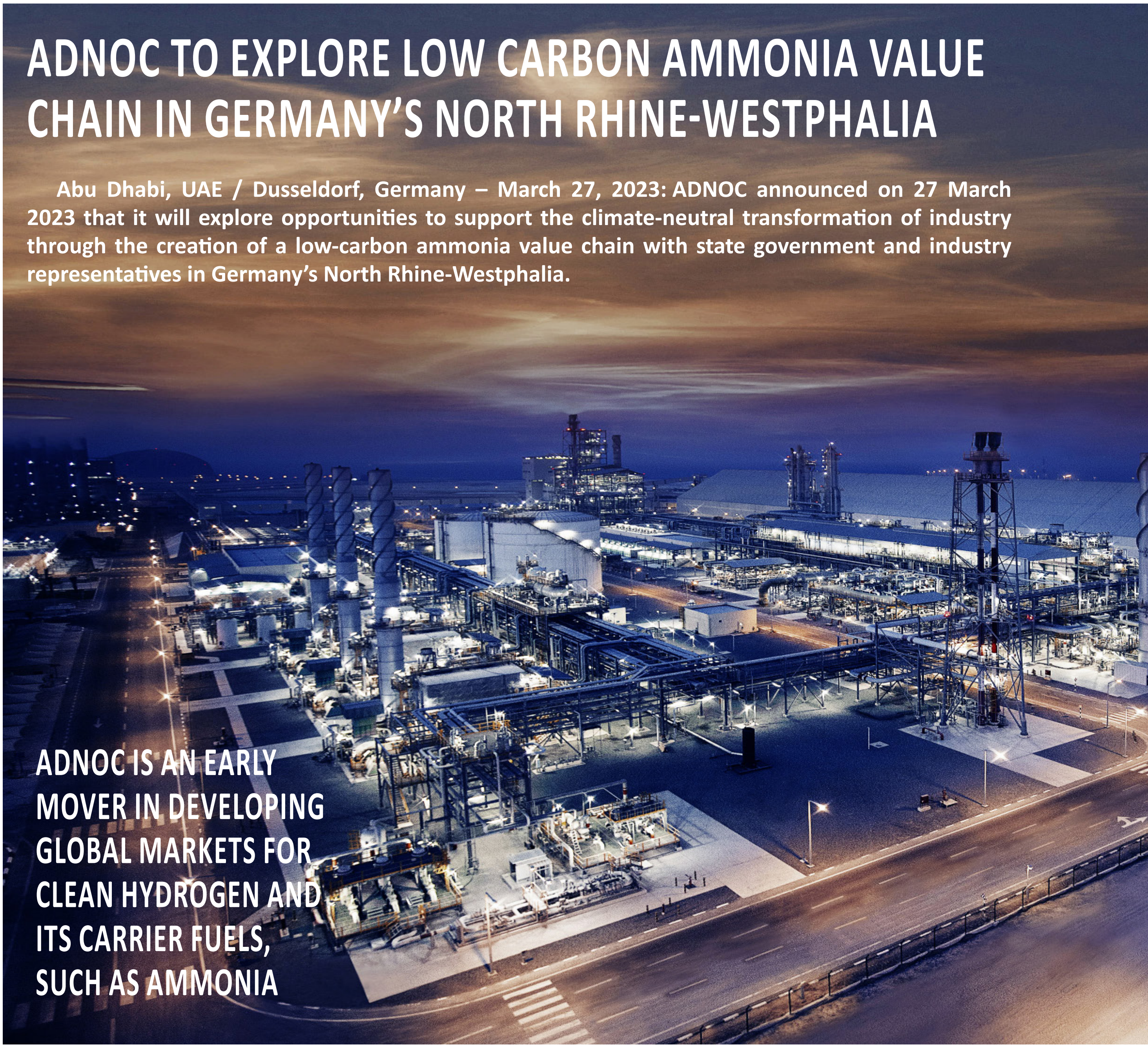
This well represents the third discovery for exploration activity of the company in area 82 block 4.

TATNEFT drilled the well as an operator under “EPSA IV” with National Oil Corporation (NOC) of Libya, with interest distributed as follows:

- First Party Interest (NOC Libya)89.5 %.
- Second Party Interest (TATNEFT)10.5 % (Operator).

ADNOC TO EXPLORE LOW CARBON AMMONIA VALUE CHAIN IN GERMANY'S NORTH RHINE-WESTPHALIA

Abu Dhabi, UAE / Dusseldorf, Germany – March 27, 2023: ADNOC announced on 27 March 2023 that it will explore opportunities to support the climate-neutral transformation of industry through the creation of a low-carbon ammonia value chain with state government and industry representatives in Germany's North Rhine-Westphalia.



ADNOC IS AN EARLY MOVER IN DEVELOPING GLOBAL MARKETS FOR CLEAN HYDROGEN AND ITS CARRIER FUELS, SUCH AS AMMONIA

The announcement was made following the signing of a memorandum of understanding (MoU) between the Government of North Rhine-Westphalia, ADNOC and Currenta GmbH & Co. OHG (Currenta), a chemical industry services provider that manages and operates one of the largest chemical sites in Europe, Chempark, with locations in Leverkusen, Dormargen and Krefeld-Uerdingen, in North Rhine-Westphalia. Ammonia, a compound of nitrogen and hydrogen, can be used as a low-carbon fuel across a wide range of industrial applications, including transportation, power generation, and industries including steel, cement and fertilizer production.

The agreement was signed in Dusseldorf, Germany, by Her Excellency, Mona Neubaur, Deputy Prime Minister of North Rhine-Westphalia and State Minister for Economics, Industry, Climate Protection and Energy, Musabbeh Al Kaabi, Executive Director, Low Carbon Solutions and International Growth Directorate at ADNOC and Frank Hyldmar, CEO of Currenta.

Her Excellency, Mona Neubaur said: "We will do our utmost to expand the capacities for the generation of renewable energies and for the production of other climate-neutral energy carriers such as green hydrogen in this country as much as possible. However, it is also clear that we will have to import various green energy sources in large quantities in order to cover our needs and to achieve

ADNOC, A MAJOR PRODUCER OF AMMONIA, WILL COLLABORATE WITH THE GOVERNMENT OF NORTH RHINE-WESTPHALIA AND CURRENTA TO ESTABLISH THE VIABILITY OF AMMONIA AS A FUEL FOR STEAM AND POWER GENERATION

our climate protection goals. We are now building partnerships and a broad import infrastructure to supply our industry. The basis for our cooperations is diversification with many countries."

The primary focus of the agreement will be the production and transportation of low-carbon ammonia and its application as a fuel in energy generation, including industrial-scale testing at Currenta's site in Dormagen, Germany.

Musabbeh Al Kaabi, Executive Director, Low Carbon Solutions and International Growth Directorate, ADNOC said: "Our fast-growing ammonia business is enabled by the UAE's abundant and competitive energy resources. As a responsible global energy provider, ADNOC is committed to meeting the growing global demand for lower-carbon intensity energy. In doing so, we are very pleased to partner with the Government of North Rhine-Westphalia and Currenta to jointly decarbonize Germany's vital industrial heartland."

Frank Hyldmer, CEO of Currenta said: "Ammonia has the potential to play an important role in decarbonization – for example as a hydrogen carrier or as a fuel in heat generation. As a chemical park operator with large steam and heat generation plants, Currenta is observing very closely to see whether it succeeds in realizing this potential. An important factor here is the development of global supply chains for ammonia. We therefore welcome and support the commitment of the state of NRW to work with ADNOC to advance such value chains."

ADNOC has already invested in low-carbon ammonia, where the carbon dioxide (CO2) emitted during production is captured and stored underground. In May 2021, the company announced a 1 million tons per year low-carbon ammonia production facility at the TA›ZIZ industrial ecosystem and chemicals hub in Ruwais, Abu Dhabi. The company has significantly expanded its strategic energy partnerships across the hydrogen value chain and has shipped demonstration cargoes of low-carbon ammonia to customers in Asia and also to Germany as part of the UAE-Germany Energy Security and Industry Accelerator (ESIA) Agreement.

ADNOC is also investing in renewable energy through Abu Dhabi Future Energy Company (Masdar), a clean-energy powerhouse that will place the UAE at the forefront of the energy transition.

ARAMCO JV HAPCO TO COMMENCE CONSTRUCTION OF MAJOR REFINERY AND PETROCHEMICAL COMPLEX IN CHINA

DHAHRAN, March 26, 2023- Aramco and joint venture partners NORINCO Group and Panjin Xincheng Industrial Group plan to start construction of a major integrated refinery and petrochemical complex in northeast China.

GREENFIELD PROJECT TO INCLUDE 300,000 BPD REFINERY AND 1.65 MILLION TONS STEAM CRACKER

ARAMCO TO SUPPLY UP TO 210,000 BARRELS PER DAY OF CRUDE OIL FEEDSTOCK TO THE PROJECT

Huajin Aramco Petrochemical Company (HAPCO), a joint venture between Aramco (30%), NORINCO Group (51%) and Panjin Xincheng Industrial Group (19%), is developing the complex that will combine a 300,000 barrels per day refinery and a petrochemical plant with annual production capacity of 1.65 million metric tons of ethylene and 2 million metric tons of paraxylene.

Construction is due to start in the second quarter of 2023 after the project secured the required administrative approvals. It is expected to be fully operational by 2026.

Aramco will supply up to 210,000 bpd of crude oil feedstock to the complex, which is being built

in the city of Panjin, in China's Liaoning province.

Mohammed Y. Al Qahtani, Aramco Executive Vice President of Downstream, said: "This important project will support China's growing demand across fuel and chemical products. It also represents a major milestone in our ongoing downstream expansion strategy in China and the wider region, which is an increasingly significant driver of global petrochemical demand. "

Zou Wenchao, NORINCO Group Deputy General Manager, said: "This large-scale refinery and petrochemical complex is a key project of NORINCO Group to implement and realize the joint development of the high-quality Belt and Road initiative, promote industrial restructuring, and enhance the oil and petrochemical sector to become stronger, better and larger. It will play an important role in deepening economic and trade cooperation between China and Saudi Arabia, and achieving common development and prosperity."

Jia Fei, Panjin Xincheng Chairman of the Board, said: "The project is of great significance for Panjin to promote increasing chemicals and specialty products, strengthening integration of the refining and chemical industry. It is a symbolic project for Panjin as it seeks to accelerate the development of an important national petrochemical and fine chemical industry base."

APICORP POSTS 2022 FINANCIAL RESULTS, RECORDING A NET COMPREHENSIVE INCOME OF USD 164MN

Saudi Arabia, March 14, 2023 – The Arab Petroleum Investments Corporation (APICORP), an OAPEC joint venture, announced the financial results for the full year that ended 31 December 2022.

APICORP posted strong results against a volatile macroeconomic backdrop that included a significant drop in global equity prices and interest rate hikes as it continued to reap the benefits of strategic decision-making and investments. By the end of 2022, APICORP's balance sheet grew by 10.8% from 2021 to reach USD 8.85bn, while net comprehensive income increased by 40%, reaching USD 164mn.

Commenting on the results, Dr Aabed Al Saadoun, Chairman of the APICORP Board, said: "Our financial results in 2022 demonstrate our commitment to excellence in delivering on our unique mandate and adding value to our stakeholders through an ever-growing range of innovative financial and investment solutions. Guided by our strategic priorities and legacy of financing for impact, we continued to solidify our position as a trusted partner for the Arab energy sector and a leading catalyst for a balanced energy transition in the region."

A favourable LIBOR environment buoys the performance of Corporate Banking and Treasury and Capital Markets units.

Despite the USD 54mn YoY increase in the cost of funding totalling USD128mn by end of 2022 mainly driven by the sharp increase in average 3-month LIBOR rates which jumped from 0.16% in 2021 to 2.38% in 2022, APICORP's gross operating income from its Corporate Banking and Treasury and Capital Markets assets respectively registered gains of USD 198mn and USD 70mn compared to a gain of US 122mn and a loss of nearly USD 12.5mn in 2021.

TOTAL COMPREHENSIVE INCOME RISES BY 40% YOY TO REACH USD 164MN

APICORP's balance sheet grew significantly, buoyed by a 48% increase in treasury assets, which reached USD 3.27bn by the end of 2022. The growth was fueled mainly by good opportunities available in money market placements and excess funding raised that was not deployed by the Corporate Banking unit.

Strong performance by legacy investments

Gross recurring operating income from APICORP's investments unit increased 11% to exceed USD 137mn in 2022 on the strength of a significant uptrend in dividend and investment income that reached USD 121.5mn, as well as more than USD 15.5mn from capital gains from the sale of stakes in portfolio companies including Saudi Aramco, Ashtead Technology, and Yellow Door Energy.

TREASURY AND CAPITAL MARKETS UNIT POSTED THE HIGHEST YOY GROWTH WITH USD 82MN INCREASE IN GROSS OPERATING INCOME

APICORP's investment portfolio assets grew by USD 191mn to reach USD 1.2bn in 2022 due to an upward revaluation of investments.

Khalid Ali Al Ruwaigh, CEO of APICORP, said: "During the financial year 2022, we successfully navigated a volatile market with extraordinary resilience that has positively impacted our balance sheet and income. Our vision has allowed us to capitalize on market forces and post exceptional results across all APICORP business units. The high-interest rate environment provided a significant upward push to our performance, but at the same time presented challenges in terms of the cost of funding which we were able to navigate through optimization of our funding solutions."

TOTAL ASSETS GREW BY 10.8% YOY TO REACH USD 8.85BN

2022 was marked by several significant milestones for APICORP in the sustainability space as it continued its drive toward supporting a balanced energy transition. These milestones include deploying more than USD 335mn from its debut green bond proceeds to eligible projects, launch of the Arab region's first Sharia-compliant financing facility designed for voluntary carbon offsets, as well as introducing the region's first A/B loan program. APICORP also became the region's first financial institution to receive a solicited Sustainability Rating ('A2') from Moody's, reflecting the successful integration of ESG factors into strategy, operations, and risk management.

Business Line Highlights

Corporate Banking The Corporate Banking unit was a significant driver of APICORP's overall profitability in 2022 due to its size and total return, with a gross operating income of USD 198mn – up 62% from 2021 and 8% above the budgeted income. The unit's assets as of December 2022 amount to USD 4.2 bn.

Investments

The Investments unit was also a significant income driver in 2022, making up 14% of APICORP's overall assets on the balance sheet following a YoY increase of 18% from 2021. Overall, the unit surpassed its budgeted income by 75% due to high dividend income from strategic investments and capital gains in the GCC equity market.

Treasury and Capital Markets While the high interest rate environment helped APICORP's Treasury and Capital Markets department portfolio achieve high gross results, the resulting rising cost of funding and interest expenses presented some headwinds. However, the unit still surpassed its budgeted income by 135% owing to rapidly rising LIBOR rates over the course of 2022. In addition, the department adopted effective portfolio management, rebalancing and hedging strategies which significantly mitigated the interest rate risk on both sides of the balance sheet and enhanced income in line with market movements.

APICORP'S MURABAHA FACILITY FOR VOLUNTARY CARBON OFFSETS NAMED "ESG DEAL OF THE YEAR 2022"

THE AWARD BY ISLAMIC FINANCE NEWS (IFN) RECOGNIZES APICORP'S INNOVATION IN ADDRESSING CLIMATE CHANGE WITH FIRST-OF-ITS-KIND FACILITY IN THE MENA REGION

The facility's Sharia compliance and syndication features enable higher access for banks to gain exposure to the attractive high-quality carbon offsets asset class

Saudi Arabia, Monday, March 20 2023: The Arab Petroleum Investments Corporation (APICORP), an OAPEC joint venture, won the "ESG Deal of the Year 2022" by Islamic Finance News (IFN) for its USD 75 million Murabaha facility to fund high-quality carbon offsets, the first of its kind facility in the MENA region.

Commenting on the agreement, Nicolas Thévenot, Managing Director, Corporate Banking at APICORP said "We are delighted to receive this recognition from Islamic Finance News. The voluntary carbon offset Murabaha facility is truly a landmark transaction which underscores APICORP's ongoing drive to offer innovative financial solutions in support of a balanced energy transition and decarbonizing the energy value chain to achieve the region's 2050 net zero targets."

The carbon offset facility, which was signed by Hartree Partners Power & Gas Company, an affiliate of Hartree Partners LP, a global energy and commodities firm, will be used by integrated carbon solutions provider Vertree to develop high-impact decarbonization projects for the MENA region and beyond. This transaction is a major milestone for APICORP's vision of supporting the region's sustainability journey.

Bryan Keogh, Group CFO at Hartree Partners LP, said "We are thrilled to have partnered with APICORP on this unique Islamic facility. This recognition is a testament to the importance of our work and our commitment to the Paris Agreement targets, and we look forward to continuing our partnership with APICORP in the sustainability space."

Robust voluntary carbon markets have emerged as a cost-effective asset class for governments and corporations to decarbonize their footprints and for investors to mitigate risks associated with evolving climate regulations. According to a report by Shell and Boston Consulting Group (BCG), the voluntary carbon offset market is projected to grow in value from about USD 2 billion in 2021 to USD 10-40 billion by 2030.

The IFN Deals of the Year award was established in 2006 to recognize those who have participated in the Islamic finance industry's most groundbreaking transactions each year. APICORP's voluntary carbon credit facility was recognized for its innovative approach to addressing climate change and its adherence to the principles of Islamic finance. Moreover, the award acknowledges the facility's syndication feature, which allows additional banks to join and gain exposure to this attractive asset class.

AYMAN AL MOAYED APPOINTED CHAIRMAN OF ARAB SHIPBUILDING AND REPAIR YARD COMPANY (ASRY)

Representative of His Majesty the King for Humanitarian Work and Youth Affairs in the Kingdom of Bahrain, Chairman of the Oil and Gas Holding Company, His Highness Sheikh Nasser bin Hamad Al Khalifa, issued an edict appointing Ayman bin Tawfeeq Al Moayed as Board Chairman of the Arab Shipbuilding and Repair Yard Company (ASRY).

Monthly Report on Petroleum Developments in The World Markets

Monthly Report on Petroleum Developments in the World Markets
April 2023

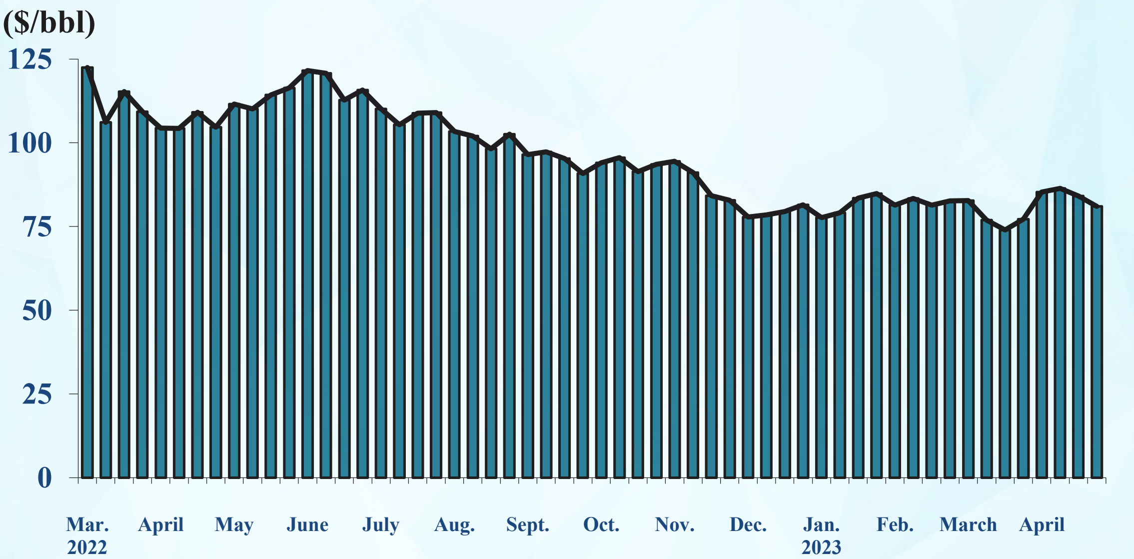
First: World Oil Markets

1. Oil Prices

OPEC primary estimates indicate that OPEC Reference Basket price increased in April 2023 by 7.2% compared to the previous month, to reach $84.1/bbl. While annual price of OPEC Basket is estimated to decrease in 2023 by 19.1% compared to 2022, to reach $80.9/bbl.

It's worth mentioning that, OPEC Reference Basket decreased in March 2023 by 4.2% or $3.4/bbl compared to the previous month of february, to reach $78.5/bbl. This is mainly attributed to selloffs in futures markets witnessed in the first half of the month amid elevated volatility, rising crude supply availability - specifically in the Atlantic Basin, weaker demand from European refiners amid refinery strikes in France that reduced demand for crude. In addition to rising US crude stocks in the first half of March and expectation of crude releases from strategic petroleum reserves in 2Q23.

Weekly Average Spot Prices of OPEC Basket of Crudes, March 2022-April 2023



Source: OPEC, Monthly Oil Market Report, Various issues.

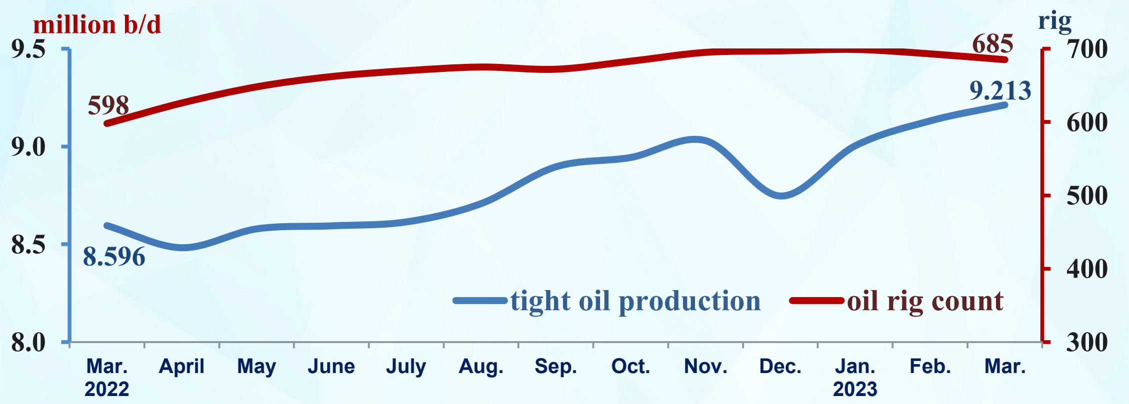
2. Supply and Demand

- Primary estimates indicate that world oil demand is increased in Q1 2023 by 0.5% compared with previous quarter, to reach 101.6 million b/d. As demand in Non-OECD countries increased by 1.3% to reach 55.8 million b/d, whereas demand in OECD countries decreased by 0.5% to reach 45.8 million b/d.

Projections indicate that world oil demand is expected to decrease in Q2 2023 to reach 100.7 million b/d. As demand in Non-OECD countries is expected to decrease to reach 55.2 million b/d. And demand in OECD countries is expected to decrease to reach about 45.5 million b/d.

- Primary estimates indicate that **world** crude oil and NGLs/non-conventional supply in March 2023, decreased by 0.1% to reach 101.3 million b/d. OPEC supply decreased by 0.3% to reach about 34.2 million b/d, and Non-OPEC supplies decreased by 0.1% to reach 67.1 million b/d.
- **OPEC+** crude oil supply in March 2023, decreased by about 377 thousand b/d, or 0.9% comparing with previous month level to reach 39.5 million b/d. The supplies of Non-OPEC supplies, which are members in OPEC+, decreased by 1.9% to reach 15.1 million b/d, and the supplies of OPEC-10 supplies, which are members in OPEC+, decreased by 0.3% to reach 24.4 mb/d.
- US tight oil production increased in March 2023 by 82 thousand b/d compared to previous month level to reach 9.213 million b/d. Production is expected to continue rising in April and May 2023 to reach 9.328 million b/d. On other development, US oil rig count decreased in March 2023 by 8 rigs, to stand at 685 rigs.

US tight oil production and oil rig count

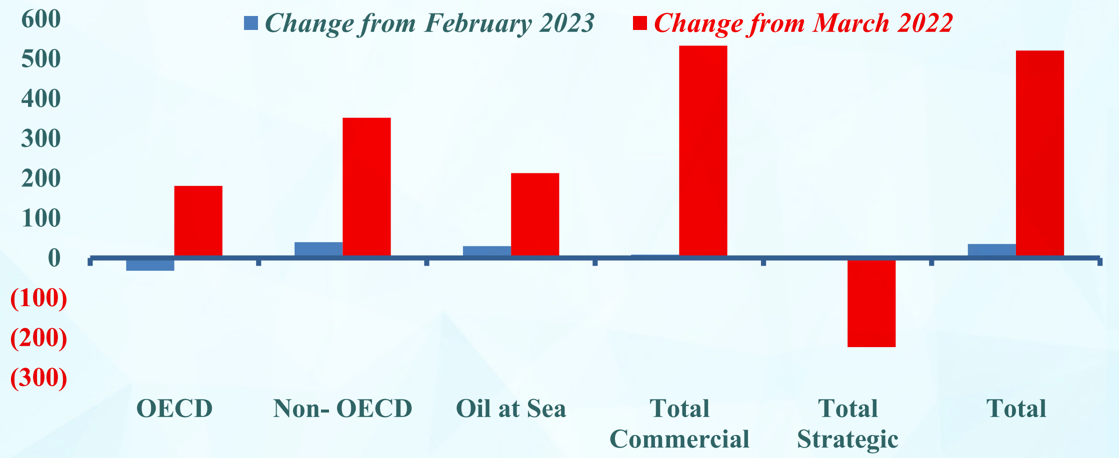


Source: EIA, Drilling Productivity Report for key tight oil and shale gas regions April 2023.

3. Oil Inventories

- OECD commercial inventories in March 2023 decreased by 32 million barrels from the previous month level to reach 2808 million barrels, and strategic inventories decreased by 2 million barrels to reach 1513 million barrels.

Change in Global Inventories at the End of March 2023 (million bbl)



Source: Oil Market intelligence, April 2023 and June 2022.

4. Oil Trade

US Oil Imports and Exports

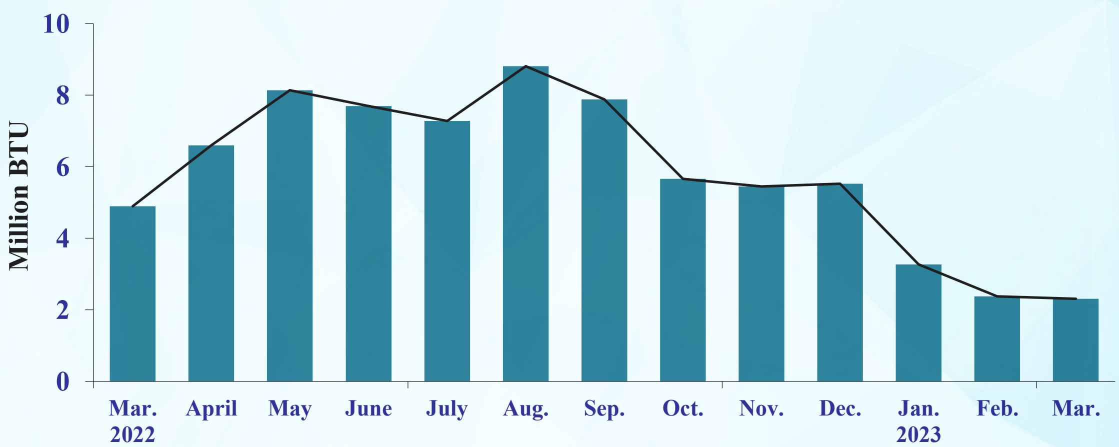
- US crude oil imports in March 2023 decreased by 0.7% from the previous month level to reach about 6.2 million b/d, whereas US crude oil exports increased by 18.2% to reach about 4.9 million b/d.
- US petroleum products imports in March 2023 decreased by 6.6% from previous month level to reach about 1.9 million b/d, whereas US petroleum products exports increased by 6.9% to reach 6.3 million b/d.

Second: Natural Gas Market

1. Prices

- The average spot price of natural gas at the Henry Hub decreased in March 2023 to reach $2.31/million BTU.

Average spot price of natural gas at the Henry Hub, March 2022-March 2023



Source: EIA, Henry Hub Natural Gas Spot Price.

Tables Annex

OAPEC

ORGANIZATION OF ARAB PETROLEUM EXPORTING COUNTRIES

ANNOUNCEMENT

OAPEC AWARD

FOR SCIENTIFIC RESEARCH FOR THE YEAR 2022

In line with OAPEC'S policy to encourage scientific research by awarding two prizes on a biennial basis (**First Prize** KD 7000-10000 equivalent to USD $23000-$32500, **Second Prize** KD 5000 equivalent to USD $16000), upon the resolution number 1/162 of OAPEC Executive Bureau at its meeting dated **18 May 2022**. **The Organization of Arab Petroleum Exporting Countries (OAPEC)** is pleased to announce that **the research field** selected for the "OAPEC Award for Scientific Research for the Year 2022" is:

Decarbonization Techniques in the Petroleum Industry and the Circular Carbon Economy "CCE"

Organization of Arab Petroleum Exporting Countries (OAPEC)
OAPEC AWARD FOR SCIENTIFIC RESEARCH FOR THE YEAR 2022

In the Field of

Decarbonization Techniques in the Petroleum Industry and the Circular Carbon Economy "CCE"

Statement of relinquishment of printing and publication rights for the research

I, the undersigned:

....

Hereby undertake to relinquish all printing and publication rights of the research submitted by me entitled:

....

....

....

to the Organization of Arab Petroleum Exporting Countries (OAPEC), in the event of winning one of the two prizes of OAPEC Award for Scientific Research for the year 2022.

Name: ....

Signature: ....

Date: / /