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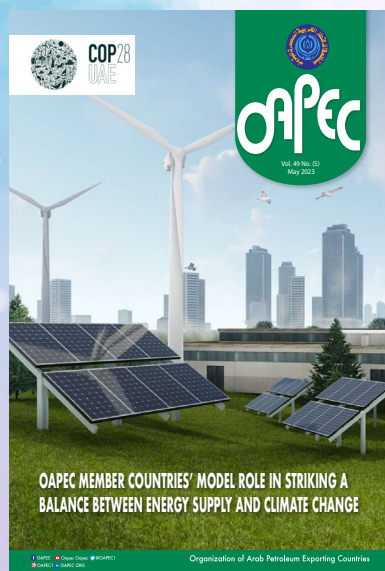
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OAPEC MEMBER COUNTRIES' MODEL ROLE IN STRIKING A BALANCE BETWEEN ENERGY SUPPLY AND CLIMATE CHANGE



The Cover



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ORGANIZATION OF ARAB PETROLEUM EXPORTING COUNTRIES (OAPEC)



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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• 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.



OAPEC MEMBER COUNTRIES' MODEL ROLE IN STRIKING A BALANCE BETWEEN ENERGY SUPPLY AND CLIMATE CHANGE



By: Jamal Essa Al Loughani
OAPEC Secretary General

A question is often raised in international energy and climate change conferences and forums about the extent to which it is possible to achieve the goal of reaching carbon neutrality by 2050 in light of the assertion of many energy centres and bodies, led by the International Energy Agency, that oil and gas will remain the main source of energy in the global energy mix, while stating that it is difficult to do without fossil fuels by 2050. The most interesting question is how can countries whose economies depend on oil and gas achieve their commitment to reach carbon neutrality by 2050 without affecting their economies? How can they maintain supplies for energy-hungry global markets (for oil and gas in particular), especially in developing countries?

The answer to these two questions seemed clear in many OAPEC member countries that announced their commitment to carbon neutrality. The answer seems even clearer these days, with the world's attention directed to the upcoming COP28 Climate Summit, to be held next December in the United Arab Emirates. Although they come at the top of oil producing and exporting countries' list, the majority of our member countries hastened to announce their commitment to carbon neutrality by 2050 providing a role model for the world in terms of compliance with environmental protection requirements and the transition to low-carbon energy along with maintaining the stability of energy markets and the continued supply of clean and environmentally friendly petroleum products.

This commitment was not just on paper, but was preceded by actions (that would take us too long to enumerate and list in detail here), the most recent of which was, for example, the execution of approximately 14 projects in the United Arab Emirates for the purpose of reducing greenhouse gas emissions under the umbrella of the Clean Projects Mechanism, which will contribute to an annual reduction estimated at about one million tons of carbon dioxide equivalent. The UAE has also launched several programs to improve energy efficiency, in addition to the announcement of a roadmap to achieve leadership in the field of green hydrogen and blue ammonia during the (COP26) summit in Glasgow in 2021.

We also consider the Abu Dhabi Future Energy Company "Masdar", as one of the important indicators that confirm the possibility of harmony between petroleum fuel and renewable energy. Among the activities that deserve attention in this regard is the announcement by UAE in 2022 of opening a headquarters for the Higher Institute for Carbon Capture, Storage and Use, and the launch

of an initiative for trading carbon contracts, and an electronic stock exchange for trading carbon credits.

It is no secret that the two initiatives launched by the Kingdom of Saudi Arabia, namely the Saudi Green Initiative and the Green Middle East Initiative are playing essential role in confirming the Kingdom's commitment to international sustainability efforts. There is no doubt that these two initiatives are boosting efforts aimed at protecting the environment and limiting climate change phenomena by setting an ambitious road map with clear landmarks that work on achieving all global goals.

As for the Arab Republic of Egypt, it announced a plan to move towards cleaner use of energy and reduce carbon emissions as part of its vision for sustainable development (Egypt 2030). And when it hosted the United Nations Conference on Climate Change (COP 27), it announced the establishment of a company to manage and issue carbon certificates and environmental products of all kinds, and launch the African Carbon Market initiative.

From the other side of the equation of balancing between supplying markets with clean petroleum products and protecting the environment, OAPEC members have witnessed important developments in the refining industry, through the development of existing facilities and the construction of new facilities in which the latest research findings are used. The scientific and advanced technologies contribute to enabling oil refineries to meet the requirements of environmental requirements aimed at reducing carbon emissions in line with the objectives of the Paris Agreement on climate change, and to produce high-quality petroleum derivatives in accordance with the latest international standards. For example, but not limited to, the Al-Zour refinery in the State of Kuwait, the Jazan refinery in the Kingdom of Saudi Arabia, the Ruwais refinery in the United Arab Emirates, and the Karbala refinery in the Republic of Iraq, in addition to projects to develop existing refineries and raise their refining capacity, such as the Sitra refinery in the Kingdom of Bahrain, and the Midor refinery in the Arab Republic of Egypt.

The Secretariat General would like to emphasise the message that these initiatives and projects carry to the world: that the oil and gas exporting countries are part of the solution in the approach to transition towards clean energy, and will not be a cause of the problem of climate change. Moreover, our member countries will remain in the leading position in environment protection efforts and will continue to supply energy markets with clean petroleum products.



THE 22ND MEETING OF GAS EXPERTS IN OAPEC MEMBER COUNTRIES

OAPEC Secretariat General held the 22nd Meeting of Gas Experts in OAPEC Member Countries, on 14 May 2023, via videoconferencing. More than 75 experts and specialists in the natural gas industry from seven member countries participated in the meeting, in addition to OAPEC Secretariat representatives.



In the opening speech, His Excellency the Secretary-General, Eng. Jamal Essa Al Loughani, indicated that the year 2022 was the “Gas Year” par excellence, due to the dynamic developments in supply and demand, and the unprecedented levels recorded in the European market in late August up to €340 per megawatt, equivalent to \$100 per million British thermal units, which had major repercussions on the global energy system. He also explained that despite the recovery witnessed in 2021- following global economic recovery from the repercussions of the COVID19 pandemic- demand declined again in 2022, but by a slight rate of 0.4%, to record 388 billion cubic feet / day. This is due to the relatively warm winter conditions in Europe, and thus reduced the demand for gas for heating purposes in the residential sector. The high gas prices also affected the demand for gas in the industrial sector, as some consumers resorted to reducing their activity due to their inability to bear the high costs of gas.

As for the developments of the gas industry and its repercussions on the Arab region, His Excellency the Secretary-General indicated that



the Arab region is strongly present in the global gas scene, in light of the European market's urgent need to increase gas supplies from the region, thanks to the important economic partnership between the two sides, which has its roots in several decades, in order to compensate for the shortfall in gas supplies from Russia, as a result of the Russian-Ukrainian crisis. This had a positive impact on the Arab countries' exports of liquefied natural gas, which recorded about 114.3 million tons in 2022, the highest figure recorded since 2013, with an annual growth rate of 2.2%, and a market share of 29%.

Concluding his speech, His Excellency stated that the Secretariat is keen on continuing the follow-up of global natural gas market developments, through preparing studies and periodic reports on the natural gas sector developments and their repercussions on Arab countries, indicating that the reports and studies of the Secretariat General have become an important source for national and regional institutions and agencies, and receives great attention from media outlets. He also stressed the Secretariat keenness to participate in various regional and international events to highlight the point of view of the member countries regarding the developments in the gas markets. He added that OAPEC actively contributes to the United Nations Gas Experts Committee in Geneva, and recently presented its vision on the

competitiveness of blue hydrogen production, indicating that the region will become the largest exporter of blue ammonia by 2030.

The proceedings of the meeting then kicked off by OAPEC Secretariat General presenting a paper on the "Natural Gas Industry Developments on Arab and International Levels". Also, representatives of the member countries presented papers covering natural gas industry developments, and future plans and investments aimed at meeting the growing domestic and export demands. At the end of the meeting, the participants discussed some conclusions and recommendations, most notably:

The important role that gas will play not only in the energy transition process, but also as a major source in the energy system in the future

Diversifying the sources of gas supplies without relying on a single source in order to boost energy security; the thing that liquefied natural gas achieved through contributing to boosting energy security in Europe

Emphasizing the importance of investing in the natural gas sector in the Arab countries, and working on using it in all economic sectors to benefit from its economic and environmental advantages

Emphasizing the importance of Arab countries as a reliable, safe and sustainable supplier of natural gas to global markets, and the importance of strategic relations with international parties



30TH ANNUAL MIDDLE EAST PETROLEUM & GAS CONFERENCE (MPGC)

OAPEC Secretary General, His Excellency Eng. Jamal Al Loughani, took part in the activities of the 30th Annual Middle East Petroleum & Gas conference (MPGC), which was held in Dubai, the United Arab Emirates during the period 22-23 May 2023, under the patronage of His Highness Sheikh Ahmed bin Saeed Al Maktoum, Chairman of the Dubai Supreme Council for Energy, President of the Dubai Civil Aviation Authority, and Chairman & Chief Executive, Emirates Group. MPGC 2023 discussion centered around the theme “Re-think, Re-strategize and Re-boot: The Middle East energy markets in transition,” in the presence of 300 participants from 25 countries around the world, representing international oil and gas companies and international organizations and institutions. HE Haitham Al Ghais, Secretary General of the Organization of Petroleum Exporting Countries (OPEC) also participated in the conference.



The conference- hosted by the Emirates National Oil Company (ENOC) and organized by S&P Global Commodity Insights- included the presentation of many technical papers and panel discussions, in addition to an exhibition in which international and Arab oil companies specialized in various fields of petroleum industry activities participated.

The conference addressed the movement of global oil and gas markets, energy security needs, geopolitical turmoil, and their impacts on oil and gas supplies, the role of liquefied natural gas in supporting the long-term sustainability of energy supplies, and the importance of Middle East refineries in meeting emerging market energy demand. The issue of energy security and emissions reduction measures also featured on the agenda of the conference.

In his speech at the event, OAPEC Secretary General, His Excellency Eng. Jamal Al Loughani, stressed that oil will remain the main source to meet the global demand for energy, despite forecasts indicating a decrease in its energy mix share from 31% in 2021 to 28.7% by 2045, however, the share of natural gas will increase from 23.2% to 24.3%, while the share of renewables will not rise to more than 11% of the total energy mix in 2045.

HE Eng. Al Loughani also indicated that OAPEC member countries are committed to playing an active role in the global trend towards a clean energy transition by providing global markets with oil products free of environmental pollutants, and



at the same time reducing emissions from the oil industry in line with the objectives of the Paris Agreement on climate change. He referred to the exorbitant investments made by the member countries in the past few years to implement mega projects aimed at developing and expanding oil refineries to enable them to produce high-quality oil products conforming to the highest international standards. Among the most important projects in this context are: the Ruwais refinery in the United Arab Emirates, with a refining capacity of 417,000 b/d; the Jizan refinery in the Kingdom of Saudi Arabia, with a capacity of 400,000 b/d; the Al Zour refinery in the State of Kuwait, with a capacity of 615,000 b/d; and the Karbala refinery in the Republic of Iraq, with a capacity of 120,000 b/d. this is in addition to a project to develop

and expand the Sitra refinery in the Kingdom of Bahrain, and the Middle East Refinery (MIDOR) in the Arab Republic of Egypt.

His Excellency indicated that most member countries have announced a roadmap to reduce carbon emissions in oil industry facilities, in addition to ambitious plans and initiatives to produce and export hydrogen in both green and blue forms to global markets at acceptable and competitive prices.

HE Al Loughani concluded his speech by stressing that the transition to low-carbon energy is a complex issue that requires the cooperation of all national and international companies, non-governmental organizations, private sector companies, and civil society organizations to achieve the desired goals.



OAPEC HOSTS 2ND QUARTERLY MEETING OF THE OPERATIONAL EXCELLENCE COMMITTEE OF THE GULF DOWNSTREAM ASSOCIATION





OAPEC hosted the second quarterly meeting for the year 2023 of the Operational Excellence Committee of the Gulf Downstream Association (GDA), during the period 10-11 May 2023, at the organization's headquarters in the State of Kuwait. The list of participants included specialists and experts from each of The Yanbu Aramco Sinopec Refining Company (YASREF) Ltd., Saudi Aramco Total Refining and Petrochemical Company (SATORP), Bahrain Petroleum Company (Bapco), Oman OQ Company, Kuwait Petroleum International "Q8", and Kuwait National Petroleum Company "KNPC", along with a number of representatives of consulting firms and global technology providers.

On the first day, the participants gave presentations on the challenges facing the refining and petrochemicals industry, as well as, development methods to achieve operational excellence. A study also reviewed examples and models of successful development projects in OAPEC and GDA member countries. The second

day included a field visit to the Al Zour refinery of the Kuwait Integrated Petroleum Industries Company (KIPIC), one of the pioneering projects in the State of Kuwait and the Middle East region.

At the end of the meeting, the participants expressed their gratitude to His Excellency Eng Jamal Al Loughani, OAPEC Secretary-General, for his support for the meeting, and to OAPEC representatives for the good organization and warm reception.



STATEMENT ISSUED BY THE 110TH MEETING OF THE COUNCIL OF MINISTERS OF THE ORGANIZATION OF ARAB PETROLEUM EXPORTING COUNTRIES (AT THE LEVEL OF DELEGATES)

OAPEC Council of Ministers held its 110th meeting (at the level Representatives) on Sunday, 28 May 2023 in the State of Kuwait, chaired by His Excellency Eng. Naseer Aziz Jabbar, Representative of the Republic of Iraq at OAPEC Executive Bureau. Iraq holds the presidency of the current term of the Council.

Their Excellencies members of the Executive Bureau discussed a set of topics on the agenda of the council related to the work and activities of the organization, including:

- Approving the final financial statements of the organization for the year 2022.
- Developing and restructuring the organization's work, while developing its activities and reviewing the systems and laws that govern its work, in a way that is compatible with the challenges and emerging developments in the field of energy.
- Preparations for the Twelfth Arab Energy Conference to be held in the State of Qatar on 11 and 12 December 2023, at the kind invitation of His Excellency Eng. Saad bin Sherida Al Kaabi - Minister of State for Energy Affairs, Managing Director and CEO of Qatar Energy.
- OAPEC Award for Scientific Research, which is granted every two years and its field for the year 2022 is "Decarbonization Technologies in the Petroleum Industry and Circular Economy".



The Secretary-General's Annual Report on the activities of the Secretariat General covering economic and technical studies, follow-up reports on the global petroleum situation, environmental affairs and climate change, the progress of work in the data bank, and the activities organized by the Secretariat and events in which it has taken part in, in addition to those which will be organized during the year 2023.

The meeting issued a number of ministerial decisions related to some of the topics on its agenda, in order for the Secretariat to put those decisions into implementation.

The Ministerial Council concluded its meeting by extending its thanks and appreciation to the State of Kuwait for hosting this meeting, and to OAPEC Secretariat General for the well-organized event.





THE SECRETARY-GENERAL PRAISES THE UAE'S ROLE IN GLOBAL CLIMATE EFFORTS

With all eyes now set on the Climate Conference (COP28) to be held next November in the United Arab Emirates, one of the leading oil-producing countries that announced its commitment to carbon neutrality by 2050, OAPEC Secretary-General, HE Jamal Al Loughani, underscored the role that the United Arab Emirates is playing to boost global efforts in facing climate challenges and achieving energy sustainability by hosting the Conference of the Parties to the United Nations Framework Convention on Climate Change (COP28) during November 2023.

The Secretary-General's statements came on the side-lines of his participation in the Arab Conference for Cooperation on Climate Change, held by the Arab Fund for Economic and Social Development on 29-30 May 2023 in the State of Kuwait, as the Conference of the Parties (COP28) is being held amidst a state of uncertainty in the global economy and geopolitical situation, which will of course cast a shadow over the course and progress of the negotiations.

The United Arab Emirates has been a pioneer in its strategic initiatives to cut emissions and achieve climate neutrality by 2050, conforming to the objectives of Paris Climate Conference 2015 (COP21) motivating countries to cut emissions to

limit the rise in global temperatures to less than 1.5 °C to 2°C compared to pre-industrial revolution levels.

The UAE has initiated the implementation of approximately 14 projects with the aim of reducing greenhouse gas emissions under the umbrella of the Clean Projects Mechanism. The total annual reduction is estimated at about one million tons equivalent of CO₂. The UAE launched several programs to increase energy efficiency, and announced a roadmap to achieve leadership in the field of hydrogen during the (COP26) summit in Glasgow 2021.

It is also currently developing a massive carbon capture and storage project in Abu Dhabi, and is promoting support for the transition towards a green, low-carbon economy by developing a green hydrogen strategy and roadmap for Dubai.

Moreover, the UAE has recently launched a long-term strategy to convert public transportation to net zero emissions by 2050, and reduce the carbon footprint in all its activities to keep pace with its endeavours to achieve climate neutrality and move from the stage of pledges to the stage of achievements in line with its strategic vision of sustainable development.

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OAPEC MEMBER COUNTRIES' ENDEAVOURS ON TRANSITION TO CIRCULAR CARBON ECONOMY



Abdul Fattah Dandi

*Director of the Economic
Department and Supervisor
of Media and Library
Department*

First of all, it should be noted that there are many different definitions of the “circular economy” term, however, it is widely used to refer to an economic system with minimal losses in resources and energy. The circular economy has been defined as a new approach that takes into account the life cycle of any system or product in terms of its use of resources and energy, with the aim of reducing environmental impacts and achieving economic and social prosperity. The circular carbon economy represents an extension of the idea of the circular economy, and its focus is on energy sources and carbon emissions resulting from them. It also targets emissions rather than targeting the energy sector itself through the principles of “reduction, reuse, recycling and removal” or what has come to be known as the “4Rs”.

The four “Rs” of the circular carbon economy are: firstly, Reduce, i.e., reduce the level of emissions entering the system by using fuels with low environmental impact and through energy efficiency. Secondly, Reuse, i.e.,

converting emissions into useful industrial feedstocks without chemically altering the carbon state (e.g., CCU). Thirdly, Recycle, i.e., recycle emissions to create new value-added products by chemically altering the state of carbon through decomposition, combustion, and natural processes (such as biofuels and blue hydrogen). Fourthly, Remove, i.e., removing emissions from the system through natural channels, and carbon capture and storage (CCS).

It goes without saying that the shift towards a circular carbon economy provides opportunities for enabling the development of new energy systems based on innovation and technologies that use all energy sources, while achieving sustainable development goals and addressing climate change. In this context, a number of OAPEC member countries have made great efforts in the field of circular carbon economy through deploying carbon capture and storage technology. The Kingdom of Saudi Arabia, during its presidency of the G20, launched the concept of the Circular Carbon Economy (CCE), which was approved as an integrated and comprehensive framework to address the challenges arising from greenhouse gas emissions and manage them using the various available technologies. This approach represents an economically sustainable way to manage emissions using the aforementioned four strategies. The Kingdom of Saudi Arabia also launched the “Green Saudi Arabia” initiative and the “Green Middle East” initiative to reduce carbon emissions to zero by 2060, with investments amounting to about \$187 billion.

During the year 2022, the Global Institute for Carbon Capture, Storage and Use headquarters was inaugurated in the United Arab Emirates. Moreover, the International Financial Centre of Abu Dhabi launched an initiative to trade carbon contracts in 2022, and launched an electronic stock exchange for trading carbon credits. This is in addition to the UAE’s hosting of the United Nations Conference on Climate Change (COP28) this year.

The Arab Republic of Egypt announced a

plan to move towards cleaner energy use and reduce carbon emissions as part of its vision for sustainable development (Egypt 2030). When it hosted the United Nations Conference on Climate Change (COP27), Egypt announced: the establishment of the first Egyptian company to develop, manage and issue carbon certificates, certificates and environmental products of all kinds; the launch of the African Carbon Market initiative; and setting standards, rules and regulatory systems, and adjusting international carbon markets rules to African needs.

There are three operating carbon capture and storage facilities in Qatar, the United Arab Emirates and Saudi Arabia. They capture about 10% of the global carbon dioxide captured annually, or a share of 3.7 million tons annually, of the total global 40 million tons per year of carbon that was captured in 2020.

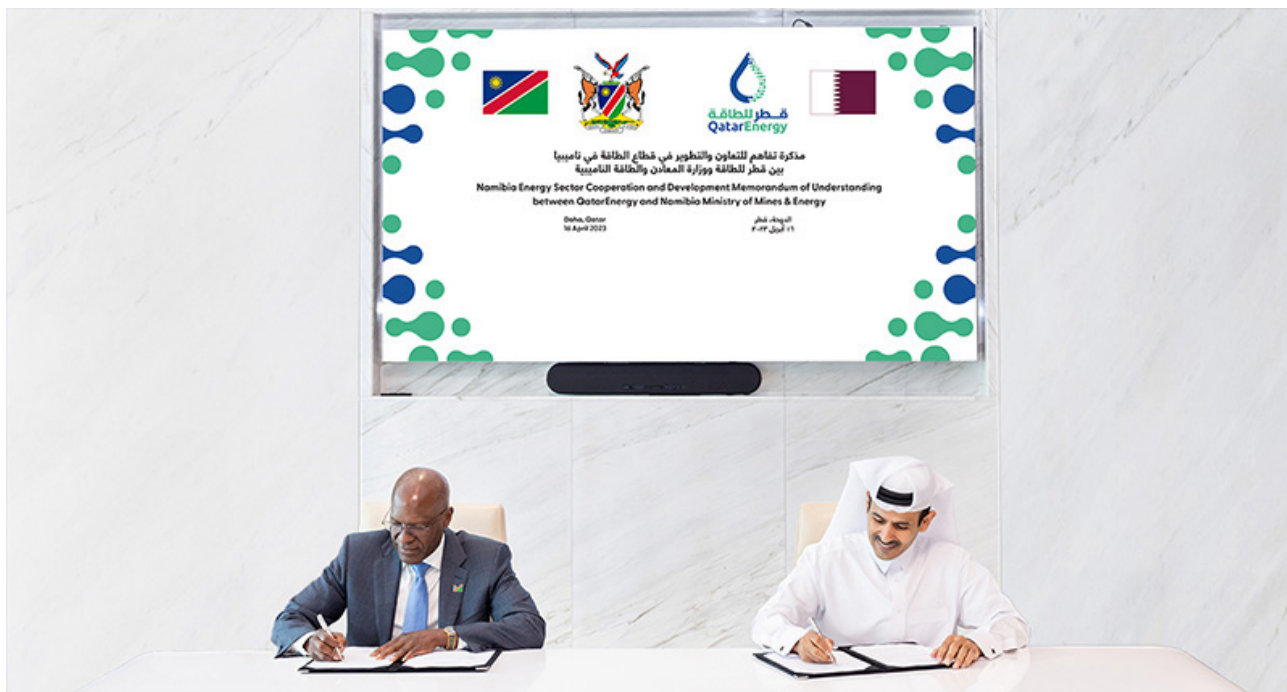
The significance of such OAPEC member countries’ initiatives lies in that oil and gas will be part of the solution in the approach to transition to clean energy. Through these initiatives, a balance can be stricken between the rational use of oil and gas and the preservation of a clean environment free of carbon emissions.

In conclusion, the current and future member countries’ orientations to draw up a comprehensive roadmap that includes the main foundations for the replacement and localization of advanced technologies in the field of carbon management, by adopting the concept of a circular carbon economy, would contribute to addressing carbon emissions in a sustainable manner. It would also support sustainable development by promoting economic growth, conserving natural resources and reducing environmental impacts, and stimulating economic growth by creating new markets for recycled carbon-based materials and reducing waste disposal costs.

* *Views expressed in the article belong solely to the author, and not necessarily to the organization.*



QATARENERGY SIGNS MOU WITH NAMIBIA TO ENHANCE ENERGY COOPERATION



DOHA, Qatar • 16 April 2023 – QatarEnergy has signed a Memorandum of Understanding (MoU) with the Ministry of Mines and Energy of the Republic of Namibia to strengthen cooperation in the energy sector. The agreement was signed by His Excellency Eng. Saad Sherida Al Kaabi, the Minister of State for Energy Affairs in the State of Qatar, the President and CEO of QatarEnergy, and His Excellency Mr Tom Alweendo, Minister of Mines and Energy of the Republic of Namibia in a special signing ceremony held at QatarEnergy's headquarters in Doha.

The MoU paves the way for continued cooperation and covers key areas such as knowledge sharing, workforce development and exploring further investment opportunities in Namibia.

In his remarks at the signing ceremony, His Excellency Minister Al Kaabi said: "We are pleased to further enhance our cooperation with the Government of Namibia and build on our recent successes. This agreement further strengthens our relationship as we work jointly towards a prosperous future."

QatarEnergy recently announced a light oil discovery in the Jonker-1X well in the Orange Basin, offshore southern Namibia, adding to the



previous two separate oil and associated gas discoveries in the same basin in 2022.

QatarEnergy holds interests in 3 Exploration Licenses offshore Namibia, PEL-39 (45%), PEL-56 (30%) and PEL-91 (28.33%), covering a total area of over 28,000 km².



QATARGAS SUPPLIES COMMISSIONING LNG CARGO TO INDIA'S DHAMRA TERMINAL

Qatargas recently supplied a commissioning liquefied natural gas (LNG) cargo to India's newest LNG receiving terminal, "Dhamra", on the vessel 'Milaha Ras Laffan' in April 2023.

Qatargas sold the LNG on a Delivered Ex-Ship (DES) basis to the French multi-energy Company TotalEnergies, who delivered it to its 50-50 joint venture with Adani Group "Adani Total Private Limited".

Commenting on this achievement, Khalid bin Khalifa Al Thani, Qatargas CEO, said:

"Delivery of this commissioning LNG cargo to India's Dhamra terminal is an important milestone for our company and for Qatar's LNG industry. We are committed to meeting the growing demand for cleaner energy in India and around the world. Our reliable and safe supply of LNG will help India meet its energy needs and contribute to its economic growth. Qatargas remains committed to operating sustainably and to delivering value to our customers, partners, and stakeholders."

He added: "I would like to thank our valued partner, TotalEnergies, for their contribution to this successful delivery. Our partnership has been instrumental in helping us achieve this feat, and we look forward to continuing to work together to deliver cleaner and reliable energy

to the world."

"We are pleased to have completed the first delivery of LNG to the new Dhamra LNG terminal with a cargo from Qatargas, our long-standing strategic partner," said Thomas Maurisse, Senior Vice President LNG at TotalEnergies. "This new LNG terminal will contribute to India's security of energy supply and is in line with TotalEnergies' ambition to support India's energy transition and its goal of increasing the share of natural gas to 15% of its energy mix by 2030."

Dhamra is home to India's seventh operational LNG terminal, the second of its kind on the east coast of the country. It is Adani Total Private Limited's first LNG import terminal with a capacity of five million tonnes per annum (MTPA) and it is expected to boost gas utilisation in the east coast of India. Once fully commissioned, Adani and TotalEnergies will provide regasification services to their downstream Indian customers.

The terminal features two tanks of 170,000 cubic metres (CBM) capacity each. The facility's jetty is capable of handling LNG carriers from 70,000 to 265,000 CBM capacity. It also offers breakbulk services, enabling reloading of LNG to smaller vessels for further distribution and an LNG truck loading facility.



ADNOC L&S EXPANDS ITS SHIPPING FLEET WITH DEPLOYMENT OF FIVE VERY LARGE GAS CARRIERS

Abu Dhabi, UAE – April 13, 2023: ADNOC Logistics & Services (ADNOC L&S), the shipping and maritime logistics arm of ADNOC, announced on 13 April 2023 the deployment of five new-build Very Large Gas Carriers (VLGC). The gas carriers were built at Jiangnan Shipyard in Shanghai, China, and will be owned and operated by AW Shipping, an ADNOC L&S joint venture with Wanhua Chemical Group (Wanhua)

As natural gas plays a critical role as a lower carbon-intensity fuel for the energy transition, the VLGCs, which transport liquefied petroleum gas (LPG), will provide ADNOC L&S greater flexibility to meet growing global gas demand.

The five VLGCs (Al Ain, Zakher, Rabdan, Al Salam and Baynounah), each with a capacity of 86,000 cubic meters, have dual-fuel engine technology and use LPG as their primary fuel source, making them among the lowest-emission vessels of this type.

Captain Abdulkareem Al Masabi, CEO of ADNOC L&S and Chairman of AW Shipping,

**COMPANY IN MAJOR GROWTH PHASE
ACROSS ITS SHIPPING AND INTEGRATED
LOGISTICS BUSINESS, PROVIDING A
BROADER SERVICE TO ITS CUSTOMERS
AND EXPANDING ITS REVENUE STREAMS**

**VESSELS POWERED BY LPG DUAL-
FUEL ENGINES, MAKING THEM
AMONG THE LOWEST-EMISSION
VESSELS IN THE VLGC CATEGORY**



said: “The addition of these new-build, lower-emission vessels to ADNOC L&S’ growing fleet of over 800 owned, operated and chartered vessels, represents another important milestone as we bolster our capacity to capitalize on growing global energy demand. Natural gas is playing an increasingly important role in the global energy landscape and ADNOC L&S is expanding its gas fleet to serve customer demand, while reducing the carbon intensity of our vessels.”

AW Shipping will own and operate the VLGCs, transporting LPG cargoes sourced from ADNOC and other global suppliers to Wanhua’s manufacturing bases in China and around the world. AW Shipping was formed in 2020 to support a 10-year LPG supply contract, signed in 2018 between ADNOC and Wanhua.



Kou Guangwu, CEO of Wanhua Chemical Group, said: “The AW Shipping JV has added great value to both Wanhua and ADNOC L&S by optimizing the supply chain. Together with ADNOC L&S, we are strongly committed to the future development of AW Shipping.»

Jiangnan Shipyard, which delivered the VLGCs, is also building liquefied natural gas (LNG) carriers for ADNOC L&S, scheduled for delivery in 2025 and 2026.

Lin Ou, Chairman of Jiangnan Shipyard, said: “Our VLGCs are future-oriented ships with advanced design that carry LPG dual-fuel systems and shaft generators, enabling them to meet the latest and strictest energy efficiency requirements.”

**NEW-BUILD VLGCs DELIVERED
TO AW SHIPPING, AN ADNOC
L&S JOINT VENTURE WITH
WANHUA, WILL HELP MEET
GROWING DEMAND FOR
NATURAL GAS**



ARAMCO:

FIRST ACCREDITED LOW-CARBON AMMONIA SHIPMENT FOR POWER GENERATION DISPATCHED FROM SAUDI ARABIA TO JAPAN

The Aramco logo is displayed in a 3D, metallic style, appearing to be mounted on the glass facade of a modern building. The building's glass reflects the sky and surrounding environment.

DHAHRAN, KSA, April 20, 2023- A first shipment of independently-certified low-carbon ammonia has arrived in Japan for use as fuel in power generation. It represents another milestone in the development of this lower-carbon energy solution.

The shipment is the result of a successful multiparty collaboration across the low-carbon ammonia value chain. The ammonia was produced by SABIC Agri-Nutrients (“SABIC AN”) with feedstock from Aramco, and sold by Aramco Trading Company to the Fuji Oil Company (“FOC”). Mitsui O.S.K. Lines (“MOL”) was tasked with shipping the liquid to Japan, then the low-carbon ammonia was transported to the Sodegaura Refinery for use in co-fired power generation, with technical support provided by Japan Oil Engineering Co (“JOE”).

The ammonia is categorized as low-carbon because CO₂ from the associated manufacturing process was captured and utilized in downstream applications.

Japan’s Ministry of Economy, Trade and Industry has announced plans to increasingly harness ammonia as a fuel for power generation and for ship propulsion, as part of the country’s 2050 decarbonization goals. The low-carbon

THE ACCREDITED LOW-CARBON AMMONIA WAS TRANSPORTED TO THE FUJI OIL COMPANY’S SODEGAURA REFINERY FOR USE IN CO-FIRED POWER GENERATION

ammonia that reached Japan is part of broader efforts by Aramco and SABIC AN to establish a global supply network for this lower-carbon fuel. Aramco and SABIC AN aim to supply low-carbon ammonia to other players to meet their early demand needs.

Olivier Thorel, Aramco Senior Vice President of Chemicals, said: “This is another milestone that highlights the possibilities for low-carbon hydrogen and ammonia made from Aramco feedstock, with the potential to play a role in



PROJECT SUPPORTS JAPAN'S AMBITIONS TO HARNESS AMMONIA AS A LOWER-CARBON ENERGY SOLUTION

a lower-carbon future. Not only is low-carbon ammonia a means to transport lower-carbon hydrogen, it is an important energy source in its own right that can help decarbonize key sectors – including power generation for both utilities and industries. By dispatching this accredited low-carbon ammonia to Japan, we are helping chart a course for the development of this vital commodity.”

Abdulrahman Shamsaddin, SABIC AN CEO, said: “Our aim is to capitalize on this important milestone to grow and expand our positive contribution toward carbon neutrality. SABIC Agri-Nutrients made a public commitment not only to become carbon neutral by 2050 but also to collaborate with customers to help them achieve their net-zero emission targets. Customers in the energy, fertilizer and chemical sectors are looking for suppliers of lower-carbon hydrogen and ammonia. And we can meet their demand by leveraging our long-standing strengths across the value chain.”

Shigeto Yamamoto, FOC Representative Director, President, said: “As Japan aims to achieve carbon neutrality by 2050, low-carbon ammonia is expected to be a next-generation fuel that can contribute to the reduction of CO₂ emissions. In order to reduce CO₂ emissions from our own operations, we have been working on co-firing ammonia, which is a by-product of the petroleum refining process, in the boiler at our Sodegaura Refinery, and we plan to burn low-carbon ammonia imported this time with the cooperation of our partners in the same boiler. We will continue these efforts to

contribute to the construction of the ammonia supply chain.”

Mohammed Al-Mulhim, Aramco Trading Company CEO, said: “This landmark achievement is an example of excellent collaboration across businesses within Aramco, SABIC, Aramco Trading and our Japanese partners, and indeed a major boost for our sustainability efforts.”

Toshiaki Tanaka, MOL Representative Director, Executive Vice President Executive Officer, said: “Ammonia is expected to be in great demand as a next-generation, clean energy source. Japan aims to achieve a carbon-neutral society by 2050, and we are very pleased to transport independently-certified low-carbon ammonia from Saudi Arabia to Japan. We are aiming for a track record of safe, reliable services across multiple transportation modes, in accordance with our customers’ needs. By combining accumulated knowledge and proactively participating in a broad range of value chains, we hope to contribute to the decarbonization of society.”

In 2020, Aramco collaborated with SABIC to dispatch the world’s first shipment of low-carbon ammonia to Japan in a demonstration project. Then, in 2022, Aramco and SABIC AN received the world’s first independent accreditation for low-carbon hydrogen and ammonia products. By the end of that year, the two companies had delivered the world’s first accredited low-carbon ammonia shipment to South Korea. The latest shipment to Japan brings this lower-carbon energy solution one step closer to the mainstream.



LOW-CARBON LNG GROWTH PROJECT TO PROCEED IN AL RUWAIS INDUSTRIAL CITY



Abu Dhabi, UAE – May 2, 2023: As part of the design phase, ADNOC announced on 2 May 2023 that its world class low-carbon LNG growth project will move forward in the Al Ruwais Industrial City, Al Dhafrah, Abu Dhabi. As an operational hub for ADNOC and its operating companies, the selected location offers significant synergies and existing infrastructure that will be leveraged to deliver project efficiencies, unlocking additional value for ADNOC, its partners and the UAE. Following a comprehensive evaluation of location options during the ongoing design phase, the proximity of Al Ruwais to ADNOC's current operations, as well as its future growth projects, in addition to a well-established local supplier base were important considerations in the company's decision. Through its planned LNG growth project, ADNOC intends to more than double its LNG production capacity to meet increased global demand for natural gas. The plant, which is designed with electric-powered processing facilities, will run on renewable and nuclear grid power making it one of the lowest carbon intensity LNG facilities in the world.

AS THE DESIGN PHASE PROGRESSES, THE AL RUWAIS INDUSTRIAL CITY LOCATION WILL LEVERAGE EXISTING ADNOC INFRASTRUCTURE, SYNERGIES, AND PIPELINE NETWORK, UNLOCKING ADDITIONAL VALUE AND DELIVERING RESILIENCE FOR ADNOC, ITS PARTNERS AND THE UAE



SONATRACH SIGNS COOPERATION AGREEMENTS IN THE FIELDS OF TRAINING IN CÔTE D'IVOIRE

Sonatrach's Algerian Institute of Petroleum recently signed a cooperation and partnership agreement in the fields of training and skill development in the hydrocarbons sector with the Institut National Polytechnique Félix Houphouët-Boigny (INP-HB). The signing ceremony took place in Yamoussoukro, Côte d'Ivoire.

The agreement covers five areas of partnership identified with the Higher School of Petroleum and Energy, one of the major schools of the National Polytechnic Institute Felix Houphouët-Boigny.

The delegation of the Algerian Institute of Petroleum, headed by the director of the institute, Mr. Qanoun Abdelkader, held several meetings, in addition to presenting two lectures on the sidelines of the visit by professors and researchers from the Algerian Institute of Petroleum. The first lecture focused on the issue of refining and petrochemicals, and the second on energy transition.





APICORP

REINFORCES POSITION AS TRUSTED DEBT ISSUER WITH MEMBERSHIP OF ICMA



**APICORP WILL
PLAY AN ACTIVE
ROLE IN SHAPING
THE FUTURE OF
CAPITAL MARKETS
AND CONTRIBUTE
TO SUSTAINABLE
ECONOMIC
DEVELOPMENT
ALONGSIDE 600
ICMA MEMBERS
FROM ACROSS THE
WORLD**

Saudi Arabia, May 15, 2023 – The Arab Petroleum Investments Corporation (APICORP), an OAPEC joint venture and energy-focused multilateral financial institution, announced on 15 May 2023 a major milestone by becoming a full member of the International Capital Market Association (ICMA), a leading trade association of the securities market.

The membership reinforces APICORP's position as a trusted debt issuer and enables it to play an active role in shaping the future of capital markets through ICMA's various professional committees and working groups. In addition to voting rights in ICMA's annual general assembly, the membership also enables APICORP to access and contribute to ICMA's knowledge-sharing platforms and vast global network.

Dr. Yasser Gado, Treasurer of APICORP, said: "Becoming a full member of the International Capital Market Association is a significant milestone for APICORP, and we look forward

to supporting its mission of promoting trusted, resilient, and well-functioning global debt securities markets, which are essential to fund sustainable economic growth and development."

ICMA is the trade association for the international capital market with over 600 member firms from 66 jurisdictions globally, including issuers, banks, asset managers, central banks, infrastructure providers and law firms. Underpinned by a focus on sustainable finance and fintech, it performs a crucial central role in the market by providing industry-driven standards and recommendations for issuance, trading and settlement in international fixed income and related instruments. It also liaises closely with regulatory and governmental authorities, both at the national and supranational level, to help ensure that financial regulation promotes the efficiency and cost effectiveness of the capital market.

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Monthly Report on Petroleum Developments in The World Markets

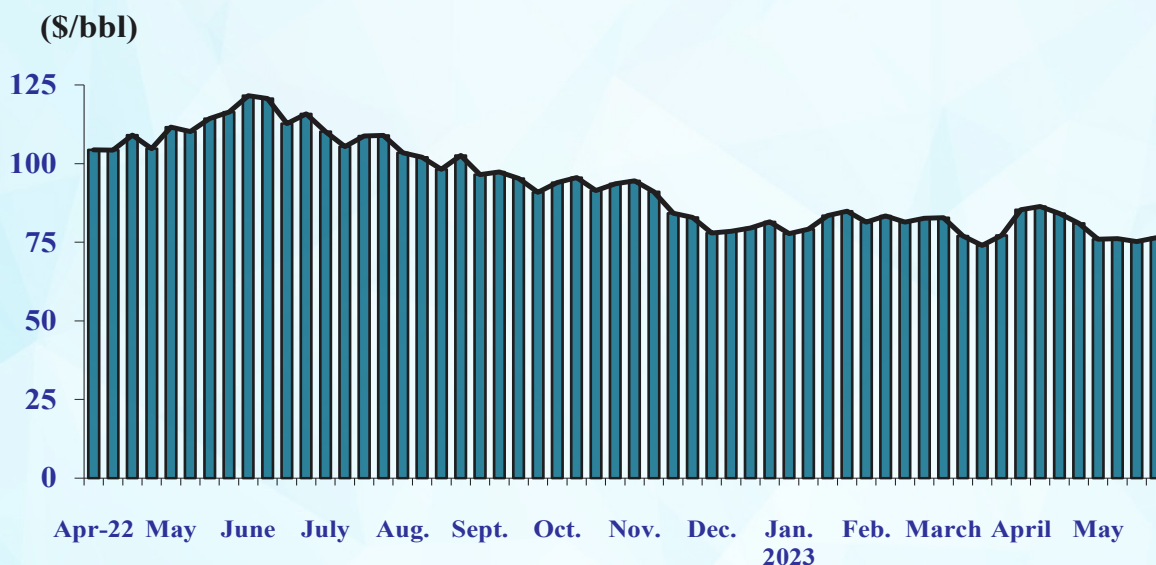
First: World Oil Markets

1. Oil Prices

OPEC primary estimates indicate that OPEC Reference Basket price decreased in May 2023 by 9.9% compared to the previous month, to reach \$75.8/bbl. The annual average price of OPEC Basket is also estimated to decrease in 2023 by 20.2% compared to the level of 2022, to reach \$79.9/bbl.

It's worth mentioning that, OPEC Reference Basket increased in April 2023 by 7.2% or \$5.7/bbl compared to the previous month of March, to reach \$84.1/bbl. This is mainly attributed to several factors namely, the rising futures prices and easing selloffs in futures markets and the prospect of a reduction of prompt loading supplies in Europe amid renewed crude demand after French refinery and port strikes ended. Moreover, a large drop in US crude oil stocks, and the persistent disruption of some crude exports from the port of Ceyhan that limited supply availability.

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



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

2. Supply and Demand

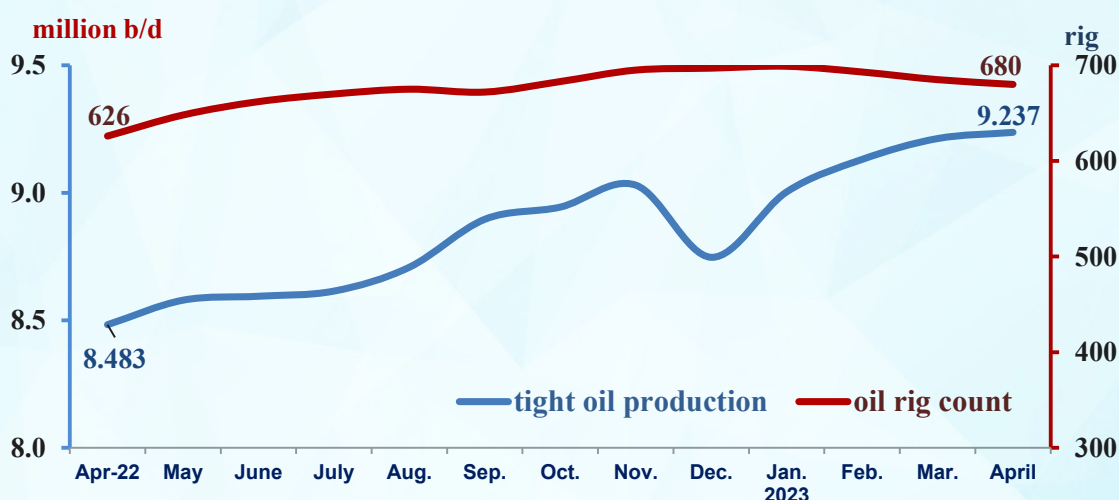
- Primary estimates indicate that world oil demand is increased in Q1 2023 by 0.5% compared with previous quarter, to reach 101.6 million b/d. As demand in Non-OECD countries increased by 1.9% to reach

56.1 million b/d, whereas demand in OECD countries decreased by 1% to reach 45.5 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 also expected to decrease to reach about 45.5 million b/d.

- Primary estimates indicate that **world** crude oil and NGLs/non-conventional supply in April 2023 will remain stable at previous month level of 101 million b/d. OPEC supply decreased by 0.5% to reach about 34.1 million b/d, while Non-OPEC supplies increased by 0.2% to reach 66.9 million b/d.
- **OPEC+** crude oil supply in April 2023, decreased by about 236 thousand b/d, or 0.6% comparing with previous month level to reach 39.2 million b/d. The supplies of Non-OPEC, which are members in OPEC+, increased by 0.02% to reach 15.1 million b/d, while the supplies of OPEC-10, which are members in OPEC+, decreased by 1% to reach 24.1 mb/d.
- US tight oil production increased in April 2023 by 68 thousand b/d compared to previous month level to reach 9.237 million b/d. Production is expected to continue rising in May and June 2023 to reach 9.332 million b/d. On other development, US oil rig count decreased in April 2023 by 5 rigs, to stand at 680 rigs.

US tight oil production and oil rig count



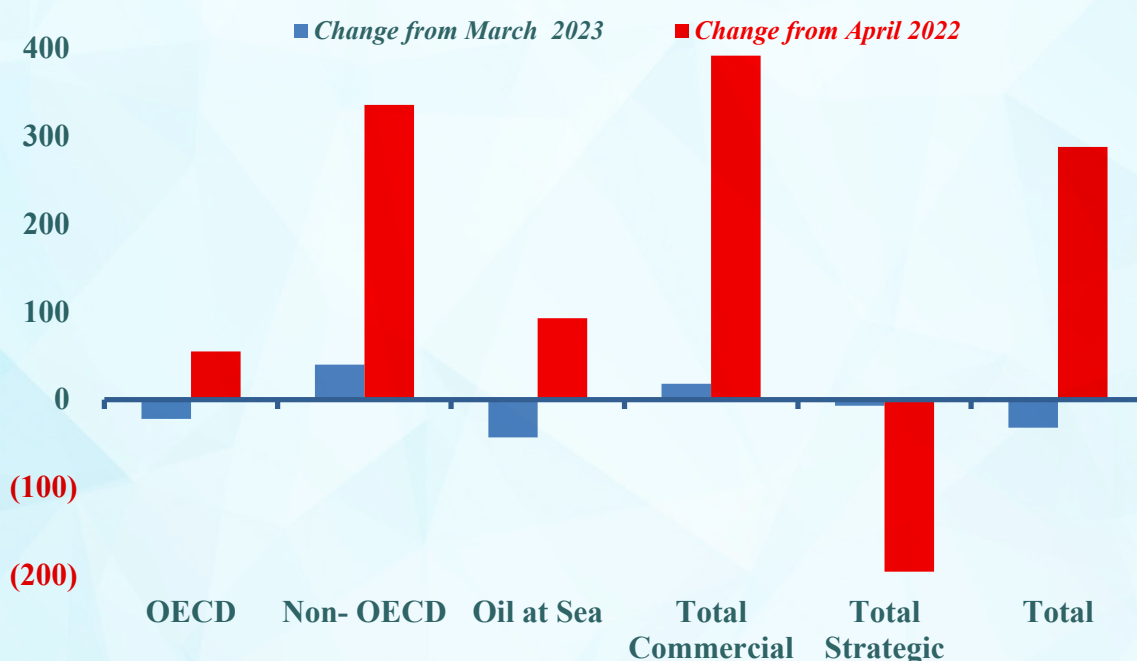
Source: EIA, Drilling Productivity Report for key tight oil and shale gas regions May 2023.



3. Oil Inventories

- OECD commercial inventories in April 2023 decreased by 22 million barrels from the previous month level to reach 2753 million barrels, and strategic inventories decreased by 7 million barrels to reach 1510 million barrels.

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



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

4. Oil Trade

US Oil Imports and Exports

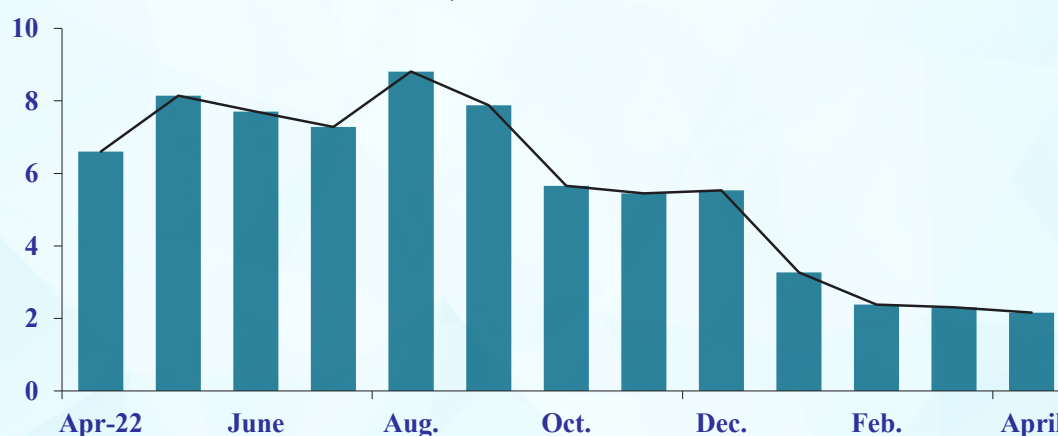
- US crude oil imports in April 2023 increased by 1.6% from the previous month level to reach about 6.3 million b/d, whereas US crude oil exports decreased by 14.8% to reach about 4.2 million b/d.
- US petroleum products imports in April 2023 increased by 15.4% from previous month level to reach about 2.2 million b/d, whereas US petroleum products exports decreased by 4.4% to reach 6 million b/d.

Second: Natural Gas Market

1. Prices

- The average spot price of natural gas at the Henry Hub decreased in April 2023 to reach \$2.16/million BTU.

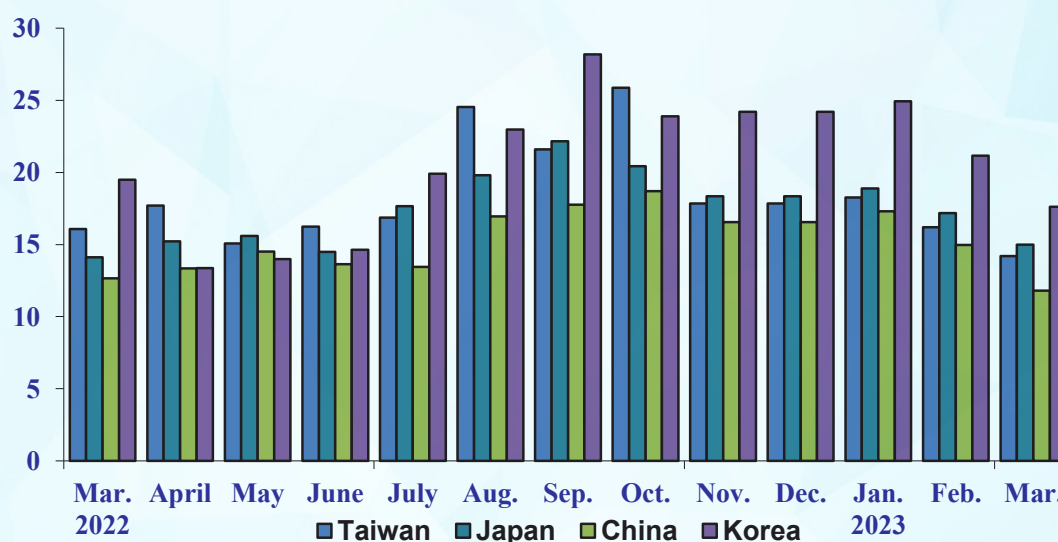
Average spot price of natural gas at the Henry Hub, April 2022- April 2023 \$/million BTU



Source: EIA, Henry Hub Natural Gas Spot Price.

- The price of Japanese LNG imports in March 2023 decreased by \$2.19/m BTU to reach \$14.99/m BTU, the price of Korean LNG imports decreased by \$3.53/m BTU to reach \$17.62/m BTU, the price of Chinese LNG imports decreased by \$3.16/m BTU to reach \$11.80/m BTU, and the price of Taiwan LNG imports decreased by \$2/m BTU to reach \$14.19/m BTU.

The price of Northeast Asia LNG imports, March 2022- March 2023 \$/million BTU



Source: Energy Intelligence - WGI, Various issues.

2. Exports

Arab LNG exports to Japan, South Korea and Taiwan were about 3.945 million tons in March 2023 (a share of 24.3% of total imports).

Tables Annex



OAPEC AWARD FOR SCIENTIFIC RESEARCH FOR THE YEAR

on

2022

**Deadline for
receiving
research papers
participating in OAPEC
Scientific Award
for the Year 2022
has been extended to
31 July 2023 instead
of 30 May 2023**



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



**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"**

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