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GLOBAL OIL MARKETS:

CONSTANT CHALLENGES & POSITIVE PROSPECTS



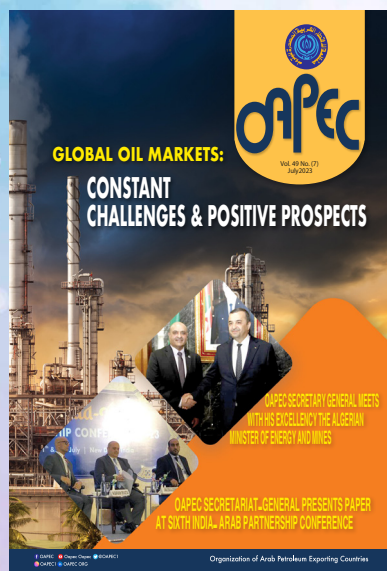
**OAPEC SECRETARY GENERAL MEETS
WITH HIS EXCELLENCY THE ALGERIAN
MINISTER OF ENERGY AND MINES**



**OAPEC SECRETARIAT-GENERAL PRESENTS PAPER
AT SIXTH INDIA- ARAB PARTNERSHIP CONFERENCE**



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.



GLOBAL OIL MARKETS: CONSTANT CHALLENGES AND POSITIVE PROSPECTS



By: Jamal Essa Al Loughani
OAPEC Secretary General

The global oil market witnessed remarkable fluctuations during the first half of 2023, against the backdrop of the continued escalation of geopolitical tensions in Eastern Europe, which played an essential role in growing concerns about the security of global energy supplies. As the European ban on imports of Russian oil products transported by sea entered into force on 5 February 2023, a ceiling was set for the prices of those imports, and Russia, for its part, banned the supply of crude oil

and its products to countries that adopted this measure, which caused major changes in the global oil trade map. This comes along with a slowdown in the growth of the performance of most of the major global economies, which witnessed turmoil in the financial and banking conditions, amid a state of uncertainty caused by high inflation rates that prompted central banks to tighten their monetary policies.

In light of these conditions, the efforts made by the group of OPEC + countries

(including five OAPEC member countries) continued to achieve stability and balance in the global oil market, in line with its successful approach of taking proactive measures, which contributed significantly to reducing the negative impact of fluctuations on the global oil market, as some countries of the group decided to make an additional voluntary cut in their production during the period (May 2023 - December 2023) with a total of 1.7 million b / d. Moreover, with the aim of boosting precautionary efforts made by the OPEC + alliance, the Kingdom of Saudi Arabia decided to make a new additional voluntary cut of 1 million b/d during the months of July and August 2023. Algeria will also make a new additional voluntary reduction of 20 thousand b/d. Russia announced its intention to reduce its oil exports too by 500 thousand b/d during August 2023.

In light of these data, global supplies of crude oil and natural gas liquids decreased by about 800 thousand b/d during the second quarter of 2023 to reach 101.1 million b/d, following an increase during the first quarter by about 600 thousand b/d. Future prospects indicate an increase in oil supplies from non-OPEC countries during the second half of 2023, bringing their annual rate to about 67.1 million b/d, which is a higher by about 1.4 million b/d than 2022. OPEC countries oil supplies are expected to decline, in light of their decisions to make a voluntary additional cut.

The demand for oil was not immune from the fluctuations in the oil market, as it increased by about 600 thousand b/d during the first quarter of 2023 to reach 101.6 million b/d. Before the demand decreased during the second quarter to about 101.2 million b/d. Future prospects indicate an increase in the global demand for oil during the second half of 2023,

bringing its annual rate to about 102 million b/d, which is higher by about 2.4 million b/d than in 2022.

Global oil stocks declined at the end of the first half of 2023 by 168 million barrels compared to the end of the previous year, to reach 8.975 billion barrels. The bulk of this decline was concentrated in inventories on board marine tankers, which saw a decline of 109 million barrels. It should also be noted that US strategic crude oil inventories declined at the end of the first half of 2023 to 347.2 million barrels, the lowest level since mid-August 1983, which raised concerns about energy security.

The aforementioned factors, in addition to other factors such as geopolitical tensions, the strength of the US dollar, and speculations in the futures markets, had a major role in the decline in global crude oil prices during the first half of 2023, as the average prices of the OPEC basket of crudes decreased by about \$ 7 per barrel during the first quarter. It reached 80.7 dollars / barrel, and continued its decline during the second quarter, albeit at a slower pace, in light of the support that prices received from the decisions of the OPEC + group aimed at achieving balance and stability in the global oil market.

While closely following developments in the global oil market, OAPEC Secretariat General appreciates the efforts made by its members to achieve balance and stability in the global oil market within the framework of the OPEC + group, by taking proactive measures that contribute significantly to reducing the negative impact of fluctuations in oil prices that reflects in turn on oil revenues, which are one of the most important sources of national income and contribute to achieving sustainable development.



OAPEC SECRETARY GENERAL MEETS WITH HIS EXCELLENCY THE ALGERIAN MINISTER OF ENERGY AND MINES



OAPEC Secretary-General, HE Jamal Al Loughani, met with the Algerian Minister of Energy and Mines, HE Mohamed Arkab, at the headquarters of his ministry.

Cooperation and boosting relations between Algeria and OAPEC in the field of hydrocarbons and energy were discussed during the meeting, which was attended by the representative of Algeria in the organization.

The two sides also reviewed membership and organizational issues, in addition to the state and developments of the global hydrocarbon market. Ways to develop the organization's work mechanisms were also discussed in light of the changes taking place in the global petroleum industry and their impact on the petroleum industry in OAPEC member countries.



OAPEC SECRETARY GENERAL MEETS WITH HIS EXCELLENCY THE ALGERIAN PRIME MINISTER

The Algerian Prime Minister, HE Ayman bin Abdelrahman, praised the relations of cooperation and coordination between his country and the Organization of Arab Petroleum Exporting Countries (OAPEC).

This came during his meeting on Monday 26 June 2023, with OAPEC Secretary-General, Eng. Jamal Al Loughani, at the Government Palace.

The meeting, which was attended by the Algerian Minister of Energy and Mines, dealt with ways to enhance the activities of OAPEC and its role in the field of energy, and keep abreast of relevant developments at the regional and international levels.



The Algerian Minister of Energy and Mines affirmed his country's continuous support for the efforts to develop the organization's work mechanisms and strengthen the frameworks of joint cooperation and coordination among the member countries. He also underscored backing OAPEC objectives represented in boosting members' cooperation in various aspects of economic activity such as the hydrocarbons industry and strengthening cooperation between the member countries in various fields of common interest, especially in forming, training and exchanging expertise.

For his part, OAPEC Secretary General expressed his gratitude for the continuous support that OAPEC receives from the Algerian side, hoping for further progress and prosperity of the petroleum industry in the member countries in light of the circumstances and changes that the global energy markets are going through.





OAPEC SIGNS A MEMORANDUM OF UNDERSTANDING WITH THE ALGERIAN PETROLEUM INSTITUTE ON TRAINING

A memorandum of understanding in the field of training was signed between OAPEC and the Algerian Petroleum Institute by His Excellency Eng. Jamel Al Loughani, OAPEC Secretary General, and Eng. Abdelkader Kannoun, Director General of the Algerian Petroleum Institute, on Monday 26 June 2023, at the headquarters of the General Directorate of Sonatrach.

The MoU aims to strengthen cooperation between the two sides in the field of developing and improving technical and administrative capabilities in general by intensifying technical cooperation in the field of training, organizing seminars and workshops, in addition to holding conferences for the benefit of trainees from the member countries.

On the sidelines of the signing ceremony, another ceremony was organized for the winners of the OAPEC Award for Scientific Research for the year 2020, which is organized by OAPEC Secretariat, with the aim of encouraging scientific research and innovation.





OAPEC SECRETARY GENERAL RECEIVES THE AMBASSADOR OF THE REPUBLIC OF INDIA TO THE STATE OF KUWAIT

OAPEC Secretary General, HE Eng. Jamal Al Loughani, received on 9 July 2023, HE Dr Adarsh Swaika, Ambassador of the Republic of India to the State of Kuwait, and the accompanying delegation at the headquarters of the Secretariat General. This visit comes before the participation of His Excellency the Secretary-General in the activities of the Indian-Arab Partnership Conference, which will be



held in the Indian capital, New Delhi, during the period 11-12 July 2023.

Discussions between the two sides covered OAPEC Secretariat activities and the existing cooperation between Indian oil companies

and a number of Arab countries, as well as ways to develop these ties. At the end of the visit, HE Dr Swaika presented a historical cultural book about the Republic of India to HE Al Loughani.



OAPEC SECRETARY-GENERAL SPEAKS AT SIXTH INDIA-ARAB PARTNERSHIP CONFERENCE



On the sidelines of his participation in the second session on “Sustainable Supply Chains” of the activities of the Sixth India-Arab Partnership Conference held in New Delhi - India, for the period 11-12 July 2023, the Secretary-General of OAPEC, His Excellency Engineer Jamal Essa Al Loughani, stressed the keenness of The Organization of Arab Petroleum Exporting Countries “OAPEC” to be present in such specialized international forums focused on energy issues in an effort to enhance cooperation between its countries and Asian countries consuming oil and gas, especially India, which, along with China, is a major driver of Asian demand for both energy sources.

HE Al Loughani explained that with regard to future prospects, most of the increase in the world’s energy needs for several decades to come will be met by oil and natural gas, which are expected to account for 53% of the energy mix consumed globally until the year 2045, according to OPEC forecasts. It is expected that

the contribution of Arab countries to global oil supplies will increase from 29.3% at present to about 38.1% in 2050. It is also expected that the contribution of Arab countries to global gas supplies will increase from 15.5% at the present time to about 19.8% in 2050.

He added that India’s demand for oil is expected to rise from 4.8 million b/d at present to 11 million b/d in 2045. India’s demand for gas is expected to rise from 64.8 billion cubic meters currently to 210.2 billion cubic meters in 2045. India is expected to remain dependent on imports to cover its domestic oil and gas needs. In light of the increasing oil and gas demand that India will witness in the future, and the expected oil and natural gas shortage to meet its domestic needs on the one hand, and the surplus that the Arab countries have for export on the other hand, there is a need to work together to strengthen the existing cooperation between the two sides from an energy security perspective; that is: the security of supplies for India and the security

of demand for the Arab countries.

HE Al Loughani said that there is no doubt that the path towards achieving this is fraught with a number of challenges facing the energy industry in general, including, but not limited to, the future global investment requirements for the development of the oil and gas sector, which is expected to reach about \$12.1 trillion in 2045. The Arab countries - especially the GCC countries- are expected to acquire the largest share of these investments. At the same time, Arab countries will continue to invest in renewable energy and carbon removal technologies as part of a long-term strategic vision aimed at building a low-carbon future through the adoption of a cleaner, more balanced and sustainable energy mix.

The Secretary General said that guaranteeing demand will motivate the Arab producing and exporting countries to increase their investments in the energy sector, as there must be a guarantee of global demand for energy in the medium and long term to justify the huge investments in the energy sector, given its exorbitant financial cost.

HE Al Loughani highlighted the other significant challenge which is the disturbances in the supply chains. He said that uncertainties in the supply chain are a major problem for many sectors around the world, especially the energy sector, which is directly and indirectly linked to the performance of all other sectors. The constant fluctuations in costs and uncertainties related to the supply of labour and materials directly threaten the performance of companies operating in the various activities of the energy sector.

He referred to the series of shocks that the global economy has witnessed since 2020, from the COVID19 pandemic to the Russian-Ukrainian crisis, saying they have caused unprecedented disruptions in supply chains, manifested in shortages of raw materials, limitations in technological capabilities, limited alternative sources, and the concentration of suppliers for various services in countries experiencing geopolitical tensions. As a result, the lead time for the delivery of major equipment increased significantly, and the cost of project insurance increased due to the high

potential losses, which was one of the main reasons for the acceleration of global inflation rates.

He added that in light of these developments, energy companies are working hard to reduce supply chain risks in order to better secure labour and materials while reducing costs. Sustainable supply chains will help protect the environment, promote social responsibility, and ensure the economic feasibility of energy companies, thus contributing to the achievement of the seventh goal of the United Nations Sustainable Development Goals, which stipulates “securing clean and affordable energy,” which is directly or indirectly linked to the rest of the sustainable development goals. Achieving sustainable supply chains requires the integration of international standards on responsible commercial behaviour through investment and trade policies, but the lack of multilateral cooperation between countries during the recent period has had a negative impact on achieving this integration. Many national energy companies in the Arab countries have, during the past period, established the concept of sustainability in their business strategies, and implemented practices that promote sustainability in all components of their supply chains, with a focus on reducing the carbon footprint.

HE Al Loughani pointed out to the initiative launched by the Kingdom of Saudi Arabia in October 2022 on global supply chains, through which the Kingdom aims to attract about \$10.64 billion in qualitative, industrial and service investments of global supply chains to the country during the first two years of launching the initiative. The initiative also aims to strengthen Saudi Arabia’s position as a major hub and a vital link in global supply chains.

The Secretary-General concluded his speech by underscoring the importance of cooperation between India and the Arab countries, which have already developed a long-term strategic vision aimed at building a low-carbon future by adopting a cleaner, more balanced and sustainable mix of energy, along with enjoying a geographical location that makes them key in the global energy supply chain.



OAPEC SECRETARIAT-GENERAL PRESENTS PAPER AT SIXTH INDIA- ARAB PARTNERSHIP CONFERENCE



OAPEC Secretariat participated in another session of the Sixth India-Arab Partnership Conference held in New Delhi - India, from 11 to 12 July 2023, under the title "Energy Cooperation". The Secretariat General's paper was presented by the Director of the Economic Department and the Supervisor of the Media and Library Department, Mr Abdel Fattah Dandi, reviewing the position of Arab countries in the global oil and gas markets, present and future, the current and future situation of the oil and gas sector in India, and ways to enhance Arab-Indian cooperation in the field of oil and gas.

He referred to the important indicators that reflect the significant position of the Arab countries in the global oil market, as they possess about 54.3% of the world's proven oil reserves, and 29.3% of the world's total oil production. In contrast, India has only 0.3% of global reserves and a share of 0.7% of global production.

He added that the Arab countries' net oil and petroleum products exports have increased from 17.4 million b/d in 2010 to 19.4 million b/d at present, and will reach 24.3 million b/d in 2030 and 28.5 million b/d in 2050. In contrast, India's

dependence on oil imports will increase from 4 million b/d now to 6.2 million b/d in 2030 and then to 8.2 million b/d in 2050.

With regard to natural gas, Dandi indicated that the Arab countries accounted for about 26.3% of the global total and 15.5% of the global total of marketed gas production. In contrast, India has only 0.6% of global reserves and a share of 0.8% of global gas production.

He stated that the Arab countries enjoyed a gas surplus of both types allocated for export, which amounted to 177 billion cubic meters in 2021 and is expected to reach 197 billion cubic meters in 2050. This is opposite to India's increasing dependence on imports, whose shortage increased from 12.2 billion cubic meters in 2010 to 31.3 billion cubic meters currently, and expected to reach 92 billion cubic meters in 2050.

He also touched on the current and future situation of the oil and gas sector in India, as he explained the growing gap between oil production and consumption in India from 4.1 million b/d at present to 10.2 million b/d in 2045.

He added that there is not much difference between the situation of gas and that of oil India, as the gap between consumption and production of gas is rising from the current 32.4 billion cubic meters to 92 billion cubic meters in 2050.

He stated that the oil imports of the Asia Pacific countries from the Middle East region are expected to rise from 59.7% to 64.8% in 2045. As for liquefied natural gas, it is expected that the exports of the Middle East countries will rise from 128 billion cubic meters to 248 billion in 2050. In contrast, India's imports will increase from 32.4 billion to 155 billion cubic meters in 2050.

He concluded by saying that in light of India's increasing demand for energy now and in the future, and the expected oil and natural gas shortage to meet its domestic needs, along with Arab countries' surplus, there is a need to work together to strengthen the existing cooperation between the two sides from the perspective of energy security in its two parts: the security of supplies for India and the security of demand for the Arab countries.

OAPEC'S GLORIOUS HISTORY IN PICTURES



SECOND ARAB ENERGY CONFERENCE

It was held in March 1982 in Doha, State of Qatar, under the slogan "Energy for Arab Development & Economic Integration."





“THE SECOND MEETING OF REFINING AND PETROCHEMICALS INDUSTRY EXPERTS IN OAPEC MEMBER COUNTRIES” & “BIOTECHNOLOGY AND THE FUTURE OF REFINING AND PETROCHEMICAL INDUSTRIES” SYMPOSIUM



OAPEC Secretariat General held The Second Meeting of Refining and Petrochemicals Industry Experts in OAPEC Member Countries, and a symposium entitled “Biotechnology and the Future of Refining and Petrochemical Industries,” during the period 20-21 June 2023, via videoconferencing.

At the beginning of the meeting, OAPEC Secretary-General, Eng. Jamal Al Loughani, thanked the attendees for taking part in the event, while stressing the importance of this meeting in light of the growing interest of the member countries in developing oil production, refining

and petrochemicals sectors, which are vital due to their role in supporting the national economy and “diversifying sources of income for our members.” He pointed out that the sector is going through many changes because it is closely linked to: supply and demand indicators; a growing burden of meeting the requirements of international environmental legislations; and intense competition in global markets, which require the member countries to draw proactive plans to confront and overcome these changes in order to maintain their pioneering and competitive role globally.

His Excellency also explained that OAPEC member countries have witnessed important developments in the petroleum industry in general, especially in the refining and petrochemical industries, through the development of existing facilities and the construction of new ones in which the latest scientific research findings of advanced technologies are used to contribute to the improvement of the industry's performance, enhance its competitiveness, and enable it to meet the requirements of stringent environmental requirements aimed at reducing carbon emissions in line with the goals of the Paris Agreement on Climate Change. This is in addition to improving: the production of high-quality petroleum products, the refineries' flexibility to process different types of heavy crude oils produced locally, as well as addressing issues of plastic waste pollution, and producing environmentally friendly petrochemical products.

HE Al Loughani concluded by thanking Their Highnesses and Excellencies the Ministers of Petroleum, Oil and Energy, and the members of the Executive Bureau in the member countries, for their continuous support to the organization by nominating technical experts and specialists who enriched the exchange of expertise and viewpoints on the challenges facing the refining and petrochemical industries, and the best ways to address them through scientific papers presented during the technical sessions of both the meeting and symposium.

It is worth noting that about 50 experts and specialists in the refining and petrochemical industries in the member countries participated in both events. The events included technical lectures from the Gulf University in the Kingdom of Bahrain, the Kuwait Institute for Scientific Research in the State of Kuwait, the Petroleum Research Institute, and the Environment and Climate Change Institute of the National Research Centre, Faculty of Engineering of Ain Shams University, and the Faculty of Petroleum Engineering and Mining, Suez, in the Arab Republic of Egypt.

Moreover, ten technical papers were presented covering: the potential role of biotechnology in developing the refining and petrochemical industries; addressing the challenges facing the industry in terms of meeting strict international environmental requirements, especially in the field of oil pollution and industrial wastewater treatment with innovative low-cost technologies. This is in addition to tackling the role of biotechnology in improving the quality of heavy crude oil and heavy

gas oil as they are available in huge quantities but handled with inappropriate commercial techniques used for the refining of light oils, as well as for the production of clean, environmentally friendly fuels. The papers also reviewed some vital methods for: identifying corrosive bacteria in the petroleum industry; treating petroleum-waste-polluted soil; and their role in solving the problems of plastic waste accumulation, producing bio-self-degrading products, and reducing the carbon footprint of the industry.

In the closing session, the attendees discussed a number of recommendations, the most important of which are:

- Expansion of research activities to isolate and develop some strains of bacteria found in oil muds in deep land reservoirs or to devise genetically modified strains from them with the aim of reducing the viscosity of heavy oil and converting it into less viscous oil that can be extracted from the ground
- Expanding the use of biotechnology in the detection of crude oil land reservoirs through the detection of vapours of some hydrocarbon compounds, such as methane, ethane, and others, which are present in the soil of oil reservoirs, by identifying the presence of some microorganisms that exploit hydrocarbon compounds as a source of necessary carbon for their growth
- Developing techniques to benefit from some microorganisms, fungi and algae due to their biological ability to digest and consume hydrocarbon compounds as food and to use them in the disposal of hazardous oil pollutants in the waters of the seas and oceans, or from the soil
- Pursuing scientific research to develop microorganisms that contribute to the biological removal of harmful metallic elements from sulphur, nitrogen and other heavy metals from petroleum products such as gasoline and diesel, and the production of clean fuel
- Preparing plans to explore new microorganisms and molecules specifically designed to produce biochemicals from biomass, with the aim of reducing production costs as well as contributing to reducing the amount of plastic waste and harmful emissions
- Forming a taskforce assigned with following up the use of biotechnology in the petroleum industries in the member countries



OAPEC LAUNCHED A WORKSHOP TO DEVELOP ARAB NEGOTIATORS' SKILLS ON CLIMATE CHANGE ISSUES





The “Sixteenth Regional Training Workshop for Developing Arab Negotiators’ Skills on Climate Change Issues” was organized by OAPEC Secretariat General from 16 to 18 July 2023. The workshop comes with the participation and cooperation of a group of international and Arab organizations (Arab League, United Nations Economic and Social Commission for Western Asia “ESCWA”, United Nations Educational, Scientific and Cultural Organization, and United Nations Environment Programme).

OAPEC Secretary-General, His Excellency Engineer Jamal Al Loughani, explained the significance of this workshop, which deals with important topics, including climate change and improving the skills of human resources in the Arab countries. He indicated that through its various activities, the organization is keen to improve the capabilities of human resources in the member countries and qualify them to handle climate change issues and the priorities of sustainable development goals.

He said that the organization, through this workshop, which is one of the main events in preparing and qualifying Arab negotiators on climate change issues, will address a number of important topics, including discussing the latest developments on negotiations of the Paris Agreement, especially with regard to response measures, losses and damages, and Article VI (carbon markets), as well as other issues such as adaptation, mitigation, financing and technology.

Over the course of 3 days, the workshop discussed various issues, including developing the skills of Arab officials in negotiating emerging issues in climate change negotiations, and preparing for the next session of the Conference of the Parties (COP28) to be held in Dubai Expo City in the United Arab Emirates, in November 2023.

The participants also discussed the most important recommendations and outcomes of the Arab negotiating group and came up with a unified vision regarding various negotiation issues during the next Conference of the Parties.



OAPEC PRESENTS THE MAIN PAPER AT “HYDROGEN DEVELOPMENTS IN MENA COUNTRIES” SYMPOSIUM

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MENA Clean Hydrogen Economy: Ongoing Activities in Arabian Countries and Its Regional Implications

14:20-14:40 UAE Time June 21, 2023 WED
Format: Digital Conference

Wael Hamed Abdel Moati
Gas Industry Expert
Organization of Arab Petroleum Exporting Countries

In partnership with: **CONNECTING GREEN HYDROGEN MENA**

OAPEC
Organization of Arab Petroleum Exporting Countries

OAPEC Secretariat General participated in a symposium entitled “Hydrogen Developments in the MENA Countries” organized by the Leader Associates Centre in Shanghai, People’s Republic of China, on 21 June 2023, via video conferencing.

The main paper at the symposium “The Hydrogen Economy in the MENA Region: The Current Situation and Regional Implications”, was presented by Eng. Wael Hamed Abdel Moati, Gas Industries Expert in the organization, with speakers from the German Corporation for International Cooperation (GIZ), the International Energy Agency, the Centre for Research on Solar Energy and New Energies in the Kingdom of Morocco and others. OAPEC’s paper introduced its vision on the current situation and the measures required to accelerate the building of a hydrogen economy in the Arab region.

Eng. Wael explained that the Arab region has taken important steps to accelerate the building of a hydrogen economy, and its integration into national energy policies, as some Arab countries have begun to prepare and develop visions, road maps, and strategies based on identifying the best paths (according to national priority) to provide hydrogen supplies (through local production or import), and the applications in which hydrogen can be used, in a total of 9 Arab countries, including

the Republic of Algeria and the Sultanate of Oman, each of which announced their national strategy for hydrogen recently. It is expected that the United Arab Emirates, the Arab Republic of Egypt and the Kingdom of Morocco will complete the preparation and review of their national strategies and announce their objectives within the next few months.

On the announced hydrogen projects, OAPEC representative explained that the number of announced projects has increased



to 80 projects covering all stages of the industry and transportation and even end-use applications. He pointed out to the launch of the second phase of investment in hydrogen, which is the awarding of engineering, supply and construction contracts to contracting companies, and the signing of binding commercial agreements with partners to sell the production of these projects, a step that reflects the true determination of policy makers and decision-makers towards investing in hydrogen energy and turning it into a reality within a few years. This will enable the countries in the region to lead the world in producing and exporting hydrogen to various markets within a few years.

Among the most prominent projects that have entered into force are: “NEOM green hydrogen” project in Saudi Arabia with a capacity of 1.2 million tons per year of ammonia (expected to start operations in 2026); the “Taziz” blue ammonia project in the UAE with a capacity of 1 million tons per year (expected to operate in 2025); the blue ammonia project in the State of Qatar, with a capacity of 1.2 million tons (expected to operate in 2026); and the green ammonia project in the Sultanate of Oman, Duqm, with a capacity of 1.2 million tons

annually (its first phase expected to operate in 2025).

Regarding the best option for exporting hydrogen from the countries of the region to European and Asian markets, he explained that ammonia is the best option because it has a high storage capacity for hydrogen compared to other alternatives (1 cubic meter contains 120kg of hydrogen). He added that another reason for ammonia being the best option is that it is an already existing trade, which is shipped and unloaded in dozens of ports around the world.

As for local use, compressed hydrogen can be relied upon and stored underground in underground tanks, and there is a promising demand in several industrial sectors such as iron, steel and ammonia within the Arab countries.

It should be noted that the participation of OAPEC in these events comes within the framework of the interest that the organization attaches to the issue of hydrogen, and to present its point of view on the role that OAPEC can contribute to the energy transition process, and to highlight the capabilities that Arab countries possess in order to play a leading role in this promising market.



ENERGY POVERTY: A MATTER OF ETHICS



By: Suleiman Jasir Al Herbish

*Former Director-General of the OPEC
Fund for International Development*

For the first time, a Saudi official with a high degree of mettle, education and influence addresses the issue of energy poverty from its ethical side.

In the state of Goa, India, during a fierce battle over climate change, a delegate spoke about the moral side of climate change. HRH Prince Abdulaziz bin Salman Al Saud, Minister of Energy in Saudi Arabia, objected to him and said:

“How strange to see some people talking about morals in this discussion while ignoring the most important ethical issue that is there are millions of people on this planet suffer from energy poverty!”

The prince’s intervention was in the right place at the right time. He spoke while the G20 energy ministers were seeking to agree an acceptable formula to be included in the final statement of the summit which is held every year. India, the host country, suffers

from energy poverty, but has gone a long way in eradicating it.

In Goa, the debate on climate change raged, as if the seventeen sustainable development goals were confined to one goal, the thirteenth goal. Even when they talked about the seventh goal «Energy for all», they took it as an entry point to talk about climate change and the disposal of fossil fuels in particular. Some of them were so excited that they started preaching about morals.

That is why Prince Abdulaziz said “The moral issue that some people do not care about is the existence of nearly 700 million people of the world’s population who are deprived of electricity.”

Those who believe in the prince’s defense of this humanitarian cause were fortunate enough that the International Energy Agency (IEA) issued, on 26 July, its report entitled: A Vision for Clean Cooking Access for All.

In its 80 pages including tables and annexes, the IEA report addresses just one aspect of energy poverty. While about 700 million people lack clean energy, nearly 2.3 billion people in the world still burn firewood, farm and animal waste for cooking, causing the death of nearly 4 million people, mostly women and children, as a result of inhaling bad air, according to the agency’s report, quoting the World Health Organization.

The lack of modern cooking stoves is one of the most important manifestations of the energy poverty problem, and the agency’s report shows that the provision of modern cooking stoves is not a technical problem, but its delivery requires leaders and a certain degree of awareness among population, in addition to funding.

Given the concentration of the problem in sub-Saharan Africa, concessional financing is an essential element in eliminating the problem.

Two points are concerning in the report at this stage:

1. How do development funds in OPEC member countries read this report? In particular, those development funds assigned by the Third OPEC Summit to follow up on energy poverty (paragraph 6 of the second chapter of OPEC summit statement in Riyadh, November 2007).
2. To what extent would the scope of the problem, as depicted in the agency’s report, be reflected in the final statement of the G-20 summit (which will be hosted this year by India)?

In the statement of the previous G20 summit held in Bali, Indonesia, 15-16 November 2022, the leaders allocated a separate clause (number 12) to energy poverty. As the leaders pledged to implement the seventh goal of the sustainable development goals and to «eradicate energy poverty», but without any clear commitment to implement an action plan! While the remainder of the clause just talks generally about climate change and the Paris Agreement, rather than energy poverty.

Those who follow this humanitarian issue from its moral dimension, as Prince Abdulaziz bin Salman Al Saud called it, hope that the leaders would allocate a separate clause for energy poverty and the methods to eliminate it, in a clear language and a plan that can be monitored and measured.

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



KOTC LAUNCHES CONSTRUCTION WORKS OF TWO SOLAR-ENERGY- POWERED ELECTRICITY PLANTS

Kuwait Oil Tanker Company (KOTC) launched, on 13 June 2023, the construction of two electric power generation plants using solar energy, with the aim of providing two liquefied gas filling facilities (Shuaiba and Umm Al Aish) with the electrical power necessary for operation through using renewable and environmentally friendly energy sources.

The company's acting CEO, Sheikh Khalid Ahmad Al Sabah, said in a speech during the inauguration ceremony that this project comes within the framework of the ambitious KOTC plan aimed at preserving the environment and preventing pollution from greenhouse gas emissions. Sheikh Khaled Al Sabah indicated that KOTC is the first company to convert to solar energy to promote and enable self-powered energy by exploiting solar energy for the liquefied gas filling plants in Shuaiba and Umm Al Aish. He explained that this project will provide 7 megawatts of electricity, which is equivalent to 16,000 barrels of oil annually to be spared. This means cutting about 8360 tons annually of greenhouse gases. He stressed that the launch of this project came as part of the energy transformation strategy 2050 of the Kuwait Petroleum Corporation and its subsidiaries within the framework of the corporation's endeavor to achieve a net-zero rate of direct or indirect emissions. He stated that the Oil Tanker Company is taking several measures to ensure the reduction of its carbon footprint, which included reducing carbon dioxide emissions resulting from its activities to confront the phenomena of climate change and the negative impact of the environmentally-



harmful gaseous emissions.

For his part, head of the gas projects team and supervisor of the renewable energy project in KOTC, Saad Al Qahtani, said in a similar speech that this project is unique and an unprecedented step to operate vital oil facilities based on clean renewable energy. Al Qahtani explained that the project aims to produce electricity in a sustainable manner to fully operate the company's liquefied gas filling plants from these sources. He stated that the project reflects the fruitful cooperation with the Kuwait Institute for Scientific Research as a technical advisor for the project and gives the opportunity for the private sector to participate in the implementation of important works in the oil sector, which achieves the greatest benefit from the expertise of specialized companies in this field.

The CEO of Life Energy Company for Electricity and Renewable Energy (the company executing the project), Hamad Al Radhan, expressed his gratitude for giving the opportunity to Life Energy Company to execute this important project. He praised the role of the Kuwait Oil Tanker Company in supporting such renewable energy projects, which will play a major role in diversifying energy sources.

(Kuwaiti Oil Ministry Website)

KOC: OPERATION OF A NEW STRATEGIC GAS LINE EXTENDING FROM NORTHERN KUWAIT TO MINA AL AHMADI



إحدى شركات مؤسسة البترول الكويتية
A Subsidiary of Kuwait Petroleum Corporation

Kuwait Oil Company (KOC) announced on 13 June 2023, the operation of a new strategic gas pipeline extending from the northern Kuwait operations area to Mina Al Ahmadi, with a size of 40 inches. The company said in a press statement that this pipeline, which is 140 km long, comes in line with KPC's plan to increase natural gas production, in a manner that meets the requirements of the local market.

KOC explained that the capacity of this strategic line reaches 900 million standard cubic feet, as it starts from the gas boosting station 132 in northern Kuwait, passing through the gas and condensate separation facilities in the north and south of Kuwait, to finally reach the Mina Al Ahmadi refinery. The company stressed that the new pipeline will contribute to keeping pace with KPC's strategy for the year 2040, which aims to increase oil and gas production and optimize the exploitation of Kuwait's hydrocarbon resources.

KOC also indicated that the pipeline meets the requirements of global markets while ensuring the highest standards of security, safety and environmental preservation, taking into account the requirements of the local consumer.

The Kuwait Oil Company has recently started operating eight pipelines to transport oil and gas to the Al Zour refinery of the Kuwait Integrated Petroleum Industries Company (KIPIC), with a total length of eight pipelines up to 450 km. (Source: Kuwaiti Oil Ministry Website)



ARAMCO AND TOTALENERGIES AWARD CONTRACTS FOR \$11 BILLION AMIRAL PROJECT

DHAHRAN, June 24, 2023- Aramco and TotalEnergies today awarded Engineering, Procurement and Construction (EPC) contracts for the \$11 billion “Amiral” complex, a future world-scale petrochemicals facility expansion at the SATORP refinery in the Kingdom of Saudi Arabia. A signing ceremony took place in Dhahran attended by Amin H. Nasser, Aramco President and CEO, and Patrick Pouyanné, TotalEnergies Chairman and CEO.

The award of EPC contracts for main process units and associated utilities marks the start of construction work on the joint petrochemical expansion, following the final investment decision in December 2022. Integrated with the existing SATORP refinery in Jubail, the new complex aims to house one of the largest mixed-load steam crackers in the Gulf, with a capacity to produce 1,650 kilotons per annum of ethylene and other industrial gases.

This expansion is expected to attract more than \$4 billion in additional investment in a variety of industrial sectors, including carbon fibers, lubes, drilling fluids, detergents, food additives, automotive parts and tires. It is also

expected to create around 7,000 local direct and indirect jobs.

Amin H. Nasser, Aramco President & CEO, said: “Today we are taking a major step forward in further strengthening the partnership between TotalEnergies and Aramco, with the SATORP expansion project being the latest in a longstanding history of collaboration of almost five decades between both companies. As part of Aramco’s growth strategy, the project is anticipated to contribute to value-addition opportunities in the Kingdom’s downstream ecosystem, and we thank the Ministry of Energy and the Ministry of Investment for their tremendous



support via the Shareek program to make this multi-billion-dollar project a reality.”

Patrick Pouyanné, TotalEnergies Chairman and CEO, said: “This landmark opens a new page in our shared history with Aramco, which we are delighted to be associated with once again. This expansion project reinforces the exemplary relationship that our two companies have enjoyed for several decades in the Kingdom of Saudi Arabia. We would like to thank the Ministry of Energy of the Kingdom of Saudi Arabia for its support throughout the development of this world-class project.”

The signing ceremony was also attended by HE Won Hee-ryong, Minister of Land, Infrastructure and Transport of South Korea, government officials from Saudi Arabia, France and South Korea and company executives from Aramco, TotalEnergies and EPC firms.

The EPC contracts were awarded to:

- Hyundai Engineering & Construction Co. Ltd — for a mixed feed cracker and

utilities, with a nameplate capacity of 1,650 kta of ethylene and related industrial gases, and utilities, flares and interconnecting systems that support main packages within the facilities.

- Maire Tecnimont — for two polyethylene units using Advanced Dual Loop technology, with a nameplate capacity of 500 kta each, and the derivative units.
- Sinopec Engineering (Group) Saudi Co. Ltd — for Tank Farm and SATORP integration.
- Gulf Consolidated Contractors Co. — for the transfer pipelines.
- Mohammed Ali Al-Suwailem Trading and Contracting Co. — for industrial support facilities.
- Mofarreh Marzouq Al Harbi and Partners Co. Ltd — for site preparation.
- Mobarak M. AlSalomi and Partners for Cont. Co — for temporary construction facilities.



ADNOC

SIGNS AGREEMENTS WITH MORE THAN 60 COMPANIES AT MAKE IT IN THE EMIRATES FORUM IN ABU DHABI

ADNOC announced recently at the Make it in the Emirates Forum in Abu Dhabi, new agreements with more than 60 UAE-based and international companies to locally manufacture critical non-oil products in its supply chain.

The new agreements bring ADNOC closer to its target to locally manufacture AED70

NEW AGREEMENTS BRING ADNOC CLOSER TO ITS TARGET TO LOCALLY MANUFACTURE AED70 BILLION OF INDUSTRIAL PRODUCTS IN ITS SUPPLY CHAIN

billion (\$19 billion) worth of products in its procurement pipeline which was announced at the last Make it in the Emirates forum in June 2022. In addition, the agreements have enabled AED2.84 billion (\$774 million) to flow back into the UAE economy through industrial investments by suppliers in expanding or establishing new facilities.

ADNOC also accelerated its AED70 billion target to 2027, ahead of the previous target of 2030. Since the launch of Make it in the Emirates, ADNOC has more than tripled its direct spend with local manufacturers. ADNOC's Make it in the Emirates agreements are estimated to contribute to 10% of the AED172 billion (\$46.9 billion) target in the Abu Dhabi Industrial Strategy which will double

OF THE AGREEMENTS SIGNED TO DATE, AED20 BILLION (\$5.45 BILLION) IS DEDICATED TO LOCAL FABRICATION YARDS



the size of Abu Dhabi's manufacturing sector. The agreements could also enable 21,500 jobs within the UAE by 2031.

Dr. Saleh Al Hashmi, ADNOC Director, Commercial and ICV Directorate, said: "ADNOC is a critical engine for the UAE's industrial growth and we are strengthening this role by localizing our supply chain and creating long-term domestic manufacturing opportunities for the private sector from our procurement pipeline, and ensuring its business continuity as we decarbonize our operations and work towards a lower carbon future. The agreements we have signed with the private sector supports our ongoing decarbonization efforts and will drive more sustainable value for ADNOC as well as enhance the resilience of our supply chain and the UAE's industrial base. We encourage local and international manufacturers to take advantage of the remaining domestic manufacturing opportunities ADNOC has created and join the UAE in our industrial growth journey."

Domestic manufacturing of critical industrial products strengthens the resilience of ADNOC's supply chain and provides greater flexibility to respond to market dynamics as the company decarbonizes its operations and invests in lower-carbon energy solutions. It also supports the UAE Net Zero by 2050 Strategic Initiative as new investors are encouraged to adopt clean technologies while setting up in the

ADNOC ACCELERATES AED70 BILLION TARGET TO 2027, FROM 2030

LOCAL MANUFACTURING OF CRITICAL INDUSTRIAL PRODUCTS PROVIDES ADNOC GREATER FLEXIBILITY TO RESPOND TO MARKET DYNAMICS AS IT DECARBONIZES AND INVESTS IN LOWER-CARBON SOLUTIONS

UAE through incentives in ADNOC's In-Country Value Program.

Of the agreements signed to date, AED20 billion (\$5.45 billion) is dedicated to local fabrication yards. These fabrication yards will create thousands of new job opportunities, drive gross domestic product (GDP) growth, and enhance the resilience of the local supply chain across multiple industrial sectors in the UAE.

The Make it in the Emirates Forum is hosted by the Ministry of Industry and Advanced Technology (MolAT) in conjunction with the Abu Dhabi Department of Economic Development (ADDED) and ADNOC. The forum is bringing together some of the largest industrial companies to explore local manufacturing and investment opportunities in the UAE.



QATARENERGY SELECTS CNPC AS NFE PARTNER, AND SELLS 4 MILLION TONS PER ANNUM OF LNG TO CHINA FOR 27 YEARS

DOHA, Qatar • 20 June 2023 – QatarEnergy signed definitive agreements with China National Petroleum Corporation (CNPC), covering the long-term supply of LNG to China and partnership in the North Field East LNG expansion project (NFE). The two parties signed an LNG Sales and Purchase Agreement

(SPA) for the delivery of 4 million tons of LNG per annum from the NFE project to CNPC's receiving terminals in China over a span of 27 years, marking the industry's longest term SPA commitment.

The two parties also signed a share sale and purchase agreement pursuant to which

QatarEnergy will transfer to CNPC a 5% interest in the equivalent of one NFE train with a capacity of 8 million tons per annum. This transfer will see CNPC become a partner in the NFE project and will not affect the participating interests of any of the other shareholders in the project.

The agreements were signed by His Excellency Mr Saad Sherida Al Kaabi, Minister of State for Energy Affairs of the State of Qatar, the President and CEO of QatarEnergy, and Mr Dai





Houliang, the Chairman of CNPC, during a special ceremony held at QatarEnergy's headquarters and attended by senior executives from both companies.

In remarks at the signing ceremony, His Excellency Minister Al-Kaabi welcomed CNPC as a valuable partner in the NFE project. His Excellency articulated, "We are pleased to embark on this partnership with CNPC and to build on the excellent relations between the People's Republic of China and the State of Qatar. These agreements demonstrate our unwavering commitment to our customers and partners and to our shared ambition for a sustainable future facilitated by a cleaner, and more eco-friendly energy source that would catalyze substantial socio-economic development."

HE Al Kaabi expressed his thanks and appreciation to the teams from CNPC and QatarEnergy for their dedication and for working tirelessly to finalize the agreements.

The Minister concluded his remarks by

stating: "We are forever grateful for the wise guidance of His Highness the Amir Sheikh Tamim bin Hamad Al Thani, and for his continued support of the energy sector."

On his part, Mr Dai Houliang, the Chairman of CNPC, said: "Our collaboration over the NFE project represents a major achievement and excellent practice of both CNPC and QatarEnergy in delivering on the strategic consensus of the leaders of our countries. It is another milestone in forming a strategic synergy between China's "Belt and Road" Initiative and Qatar's National Vision 2030. It lays a solid foundation for the energy cooperation between the two sides in the next three decades. From this brand-new starting point, CNPC will continue to actively discuss with QatarEnergy all-round cooperation across the hydrocarbon industry chain and other areas like green and low carbon energies, so as to build a stable, long-term, and multi-dimensional strategic partnership."



Monthly Report on Petroleum Developments in The World Markets

July 2023

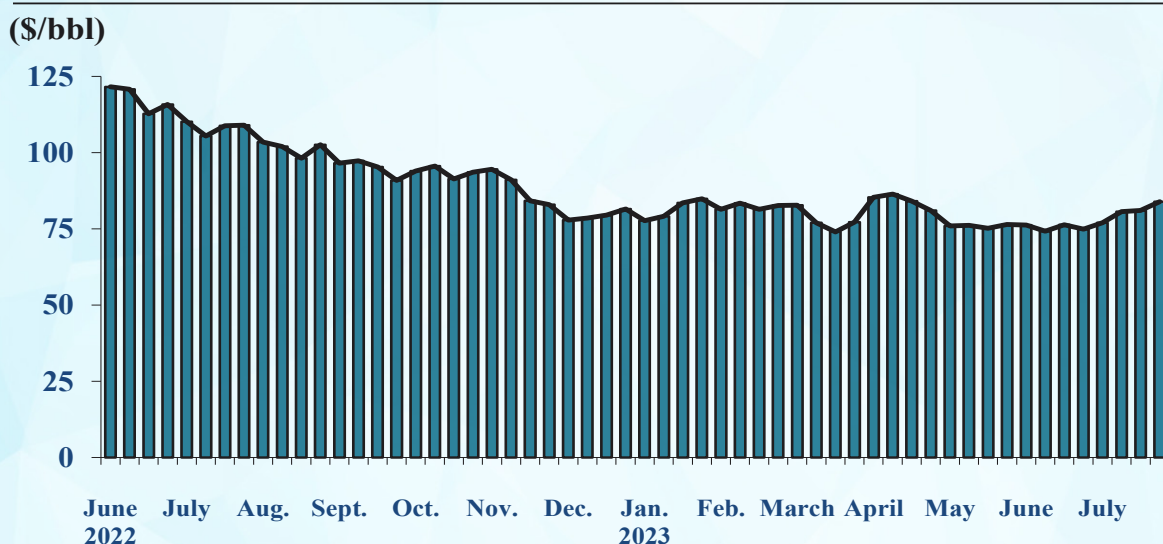
First: World Oil Markets

1. Oil Prices

OPEC primary estimates indicate that OPEC Reference Basket price increased in July 2023 by 7.1% compared to the previous month, to reach \$80.6/bbl. While annual price of OPEC Basket is estimated to decrease in 2023 by 20.6% compared to 2022, to reach \$79.5/bbl.

It's worth mentioning that, OPEC Reference Basket decreased in June 2023 by 0.8% or \$0.6/bbl compared to the previous month of May, to reach \$75.2/bbl. This is mainly attributed to Selling pressure in futures markets amid persistent worries over the global economy, demand outlooks (specifically in China), and tightening monetary policies in key economies.

Weekly Average Spot Prices of OPEC Basket of Crudes, June 2022-July 2023



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

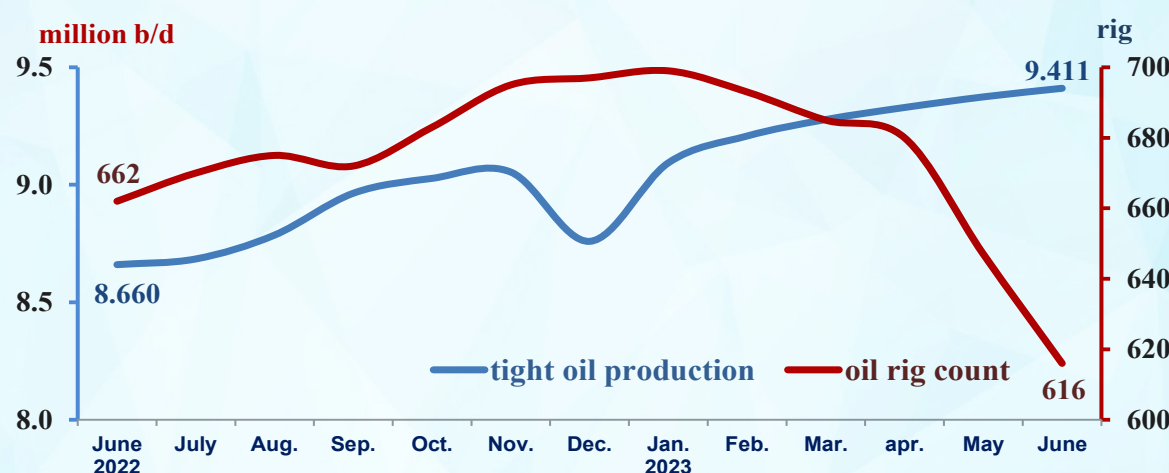
2. Supply and Demand

- Primary estimates indicate that world oil demand is decreased in Q2 2023 by 0.4% compared with previous quarter, to reach 101.2 million b/d. As demand in Non-OECD countries decreased by 0.7% to reach 55.7 million b/d, whereas demand in OECD countries increased by 0.1% to reach 45.5 million b/d.

Projections indicate that world oil demand is expected to increase in Q3 2023 to reach 102 million b/d. As demand in Non-OECD countries is expected to decrease to reach 55.1 million b/d. Whereas demand in OECD countries is expected to increase to reach 46.9 million b/d.

- Primary estimates indicate that **world** crude oil and NGLs/non conventional supply in June 2023, increased by 0.6% to reach 101.6 million b/d. OPEC supply increased by 0.3% to reach 33.6 million b/d and Non-OPEC supplies increased by 0.8% to reach 67.4 million b/d.
- **OPEC+** crude oil supply in June 2023, increased by about 80 thousand b/d, or 0.2% comparing with previous month level to reach 43.1 million b/d. The supplies of Non-OPEC supplies, which are members in OPEC+, decreased by 1% to reach 14.9 million b/d, whereas the supplies of OPEC-10 supplies, which are members in OPEC+ increased by 0.3% to reach 28.2 mb/d.
- US tight oil production increased in June 2023 by 37 thousand b/d compared to previous month level to reach 9.411 million b/d. Production is expected to continue rising in July 2023 to reach 9.411 million b/d, before decline in August 2023 to reach 9.399 million b/d. On other development, US oil rig count decreased in June 2023 by 31 rigs, to stand at 616 rigs.

US tight oil production and oil rig count



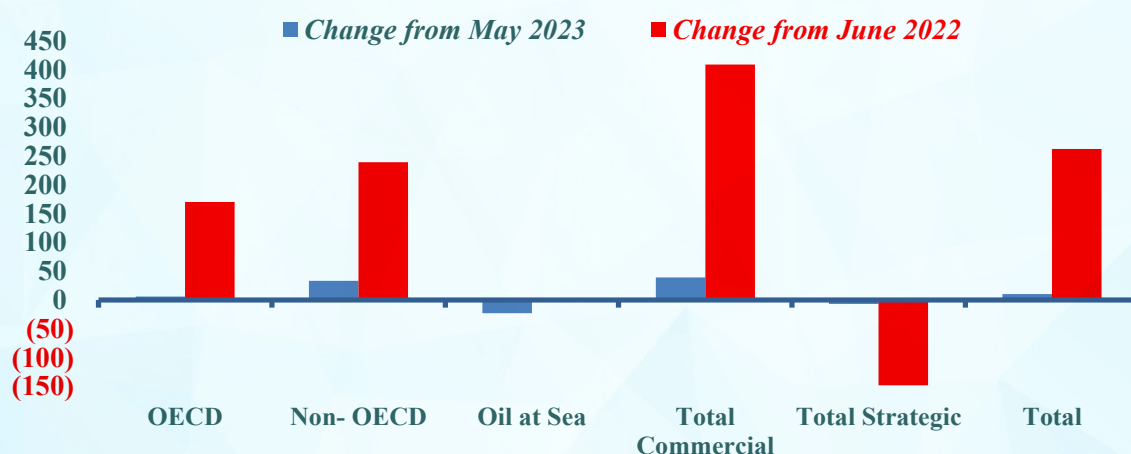
Source: EIA, Drilling Productivity Report for key tight oil and shale gas regions July 2023.

3. Oil Inventories

- OECD commercial inventories in June 2023 increased by 6 million barrels from the previous month level to reach 2831 million barrels whereas strategic inventories decreased by 7 million barrels to reach 1490 million barrels.



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



Source: Oil Market intelligence, July 2023 and Sept. 2022.

4. Oil Trade

US Oil Imports and Exports

- US crude oil imports in June 2023 increased by 2.7% from the previous month level to reach about 6.5 million b/d, and US crude oil exports increased by 2.4% to reach about 4.3 million b/d.
- US petroleum products imports in June 2023 increased by 10.8% from previous month level to reach about 2.3 million b/d, and US petroleum products exports increased by 0.5% to reach 6.2 million b/d.

Second: Natural Gas Market

1. Prices

- The average spot price of natural gas at the Henry Hub increased in June 2023 to reach \$2.18/million BTU.

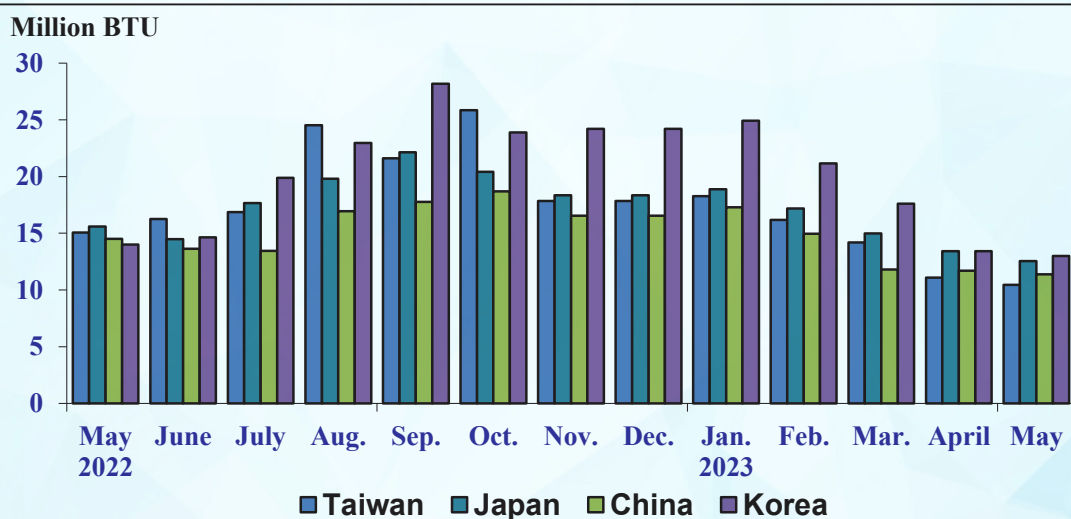
Average spot price of natural gas at the Henry Hub, June 2022 - June 2023



Source: EIA, Henry Hub Natural Gas Spot Price.

- The price of Japanese LNG imports in May 2023 decreased by \$0.88/m BTU to reach \$12.54/m BTU, the price of Korean LNG imports decreased by \$0.42/m BTU to reach \$13.01/m BTU, the price of Chinese LNG imports decreased by \$0.34/m BTU to reach \$11.37/m BTU, and the price of Taiwan LNG imports decreased by \$0.63/m BTU to reach \$10.46/m BTU.

The price of Northeast Asia LNG imports, May 2022-May 2023



Source: Energy Intelligence - WGI, Various issues.

2. Exports

Arab LNG exports to Japan, South Korea and Taiwan were about 3.107 million tons in May 2023 (a share of 20.9% of total imports).

Tables Annex