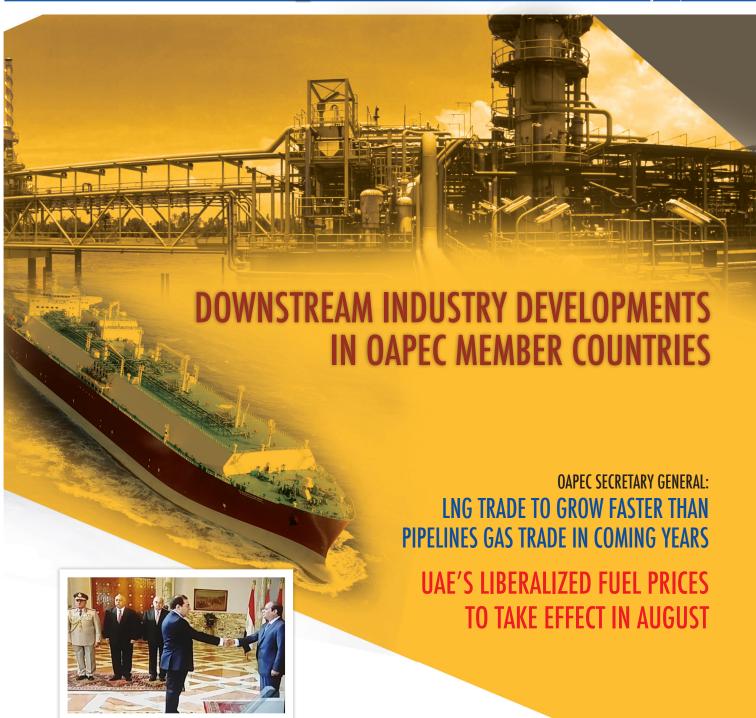
Organization of Arab Petroleum Exporting Countries

August - September 2015



HE ENGINEER TARIQ AL MULLA
EGYPT'S NEW PETROLEUM AND ENERGY RESOURCES MINISTER

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 activities stopped since 1987). 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.

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-Sponsored 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.

Content





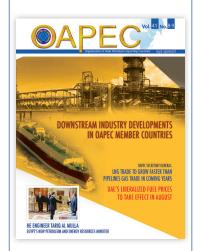
Saudi Aramco Launches Carbon Capture Pilot Project



Iraqi Oil Sector... Continuous Success in spite of **Security and Economic Challenges**



The 5th Gulf Intelligence Energy Markets Forum 2015



Cover of the issue

OAPEC member countries spare no effort in making the most ideal use of their petroleum resources through various downstream projects (refining and petrochemicals). These projects aim at realizing strategic goals, on top of which responding to the domestic needs for petroleum products and consequently reducing exports of this kind. Petroleum products excess is exported to foreign markets, which helps boosting the petroleum industry and supporting national economies of the member countries.

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Downstream Industry Developments in OAPEC Member Countries

OAPEC member countries spare no effort in making the most ideal use of their petroleum resources through various downstream projects (refining and petrochemicals). These projects aim at realizing strategic goals, on top of which responding to the domestic needs for petroleum products and consequently reducing exports of this kind. Petroleum products excess is exported to foreign markets, which helps boosting the petroleum industry and supporting national economies of the member countries.

Data provided by OAPEC Secretary General's 41st annual report for the year 2014 show that the total capacity of primary distillation in OAPEC member countries' 51 oil refineries has reached 7.55 million b/d by the end of 2014, the same figure recorded in 2013, claiming more than 90% of the total primary distillation capacity in the Arab countries. The report also refers to difficulties in executing new refinery projects announced earlier by Arab countries with a total refining capacity of about 4.9 million b/d due to various reasons, most important of which is the drop of the average growth rates of the world demand for petroleum products. It is expected that only 2.4 million b/d would be in operation during the period from 2014 to 2018. Most of the increase will come from projects run by KSA, UAE, the State of Kuwait, the Republic of Iraq, and the Republic of Algeria.

During 2014, petroleum products consumption in OAPEC member countries hit 5.8 million barrels of oil per day. Most consumed petroleum products were gasoil, diesel, gasoline, fuel oil, LPG, jet fuel, and kerosene. Annual increase of petroleum products consumption in OAPEC member countries during the period from 2010 to 2014 is estimated at about 1.9%, while Arab countries together claim about 8% of the global consumption of petroleum products.

Throughout the past two decades, the oil refining industry witnessed some significant developments, driven by a number of factors most important of which are the desire to develop the specifications of petroleum products, improve refineries' capacities to produce clean fuel, and refine heavy and acid oils. Cooperation has increased between national and international oil companies in the refining industry in order to exchange expertise and share risks between the two sides. OAPEC member countries' governments worked on encouraging the private sector to be part of the refining industry projects.

On another note, an OAPEC study titled "The World's Oil Refining Horizons" indicated that the refining industry is facing numerous difficulties and challenges worldwide, on top of which came the fall and change in the world's petroleum products demand pattern, the uncertainty around consumption statements, and the trend of some governments towards supporting biofuel, as well as, burdens imposed on petroleum exporting countries to meet the legislative environmental requirements to reduce sulfur in the petroleum products. Those in charge of the

energy and petroleum industry in the member countries work relentlessly to overcome these challenges relying on their expertise and knowledge for long decades in the refining industry.

On the petrochemicals front, many OAPEC member countries have the potential for establishing a petrochemicals industry with the highest world standards. These potentials include having the raw material- i.e. natural gas, these countries' geographical position between the east and the west, in addition to the huge efforts by these countries to develop the petrochemicals industry to achieve a number of economic goals like diversifying a country's financial revenues, securing their needs of petrochemicals, and opening job opportunities for local labour force.

According to OAPEC Secretary General's 41st annual report, ethylene production in Arab countries in 2013 hit 20.3 million tons/year, similar to that recorded in 2012. It is worth mentioning that there are many mega and ambitious petrochemical projects in OAPEC member countries including SADARA and PETRO RABIGH-2 in KSA, Borouge-3 in the UAE, the olefins project in Qatar, the petrochemicals complex in Algeria, and Tahrir Petrochemicals Complex in Egypt.

The petrochemicals industry in OAPEC member countries faces various domestic and external challenges, most important of which are the limited feedstock in some countries, the fall of global demand for petrochemicals, and the severe competitiveness with international companies in the domestic market. It is expected that current world developments in the petrochemicals industry would have big impact on the future trends of this industry, most significant of which are the USA's success in producing ethylene from shale gas, and the growing petrochemicals market in China.

OAPEC member countries on their part are sparing no effort to reach the best possible solutions to develop their petroleum industry in order to achieve the best economic revenues, and keep in pace with the continuous international developments in the petroleum and downstream industries. Integration between the oil refining and petrochemicals industries through choosing the petrochemicals complex site to be close to refineries appears as a promising solution that could contribute actively to handling technical petrochemicals problems at refineries, as well as reducing financial costs through cancelling some units and establishing mutual facilities like steam and power generation and storage units.

The continuous efforts of OPAEC member countries would have a direct impact on developing the petroleum industry, and would contribute to enhancing the Arab economic development. The Secretariat General is looking forward to see more achievements in this sector, and is hoping for more progress and success in downstream industries relying on the Arab economic cooperation and integration.

KSA

Saudi Aramco Launches Carbon Capture Pilot Project



Saudi Aramco has launched the first carbon capture and enhanced oil recovery pilot project in Saudi Arabia in Al Uthmaniyah and Al Hawiyah areas. The project is the largest of its kind in the Middle East.

In the pilot project, CO2 will be injected — and sequestered, or stored — into flooded oil reservoirs under high pressure to enhance oil recovery, making it a win-win solution. The project includes 4 injecting wells, 4 production wells, and two observation wells. It is expected that 40% of the CO2 will be permanently sequestered underground.

The project aims to enhance oil recovery beyond the more common method of water flooding, and is the largest of its kind in the Middle East.

The pilot project's main objectives include:

- Measuring the quantity of CO2 that will remain sequestered in the reservoir
- Estimating the increase in oil recovery compared to the common water flooding method
- Examining risks including CO2 transfer in the reservoir



- Evaluating operational risks
- The project will use 40 million standard cubic feet per day of CO2, which will be captured at Hawiyah gas recovery plant and then piped 85 kilometers to the 'Uthmaniyah field, where it will be injected.



Upgrading MANIFA Field Offshore the Arabian Gulf

Saudi Aramco has succeeded in upgrading the capacity of Manifa oilfield, offshore the Arabian Gulf (North Jubail) to reach its full production capacity of 900,000 bpd of Arabian Heavy crude oil, 120 million scfd of associated gas, and 65,000 bpd of hydrocarbon condensate. It also supports Yasref refinery, whose capacity is 400,000 bpd.

Project elements completed included the construction of 7 offshore water injection rigs and 6 others for crude oil production. Work also included developing 26 existing rigs for monitoring reservoir pressure, and constructing processing central utilities, gas-oil separation facility, utilities and water supply plant, water injection facility, offshore submersible electric rigs, pumps, and post-production pipelines in Al Khurassaniyah, Ras Tannourah and Al Jua'imah. The project includes as well a 420MW steam and electric power generation plant by using fuel compound cycle technique which contributed to the electricity self-sufficiency of Manifa field.

Saudi's deepest well has been drilled in Manifa field at a depth of more than 32,000 feet; average well depth in KSA is 14,000 feet. In collaboration with Baker Hughes, Aramco has developed an unprecedented device globally, with a diameter of 4.75 inches, using magnetic resonance, to help choosing the best formation for injecting the reservoir with water. Aramco has also used various advanced devices to boost well production, complete a number of dual-directional smart wells, as well as to complete the drilling of more than 3 million feet.

ASRY Opens New Office in Saudi Arabia's Khobar

ASRY, an OAPEC joint venture, has opened a new representative office in Al Khobar, Saudi Arabia. The step comes in line with the rise of the company's business in the Saudi market, which is one of Asry's main markets. The contribution of Saudi Arabian business to total sales for 2014 was approximately 40%, which is a significant amount, and reflects the importance of the geographical

area to ASRY's business. This is predominantly due to the offshore services division which is largely Saudi-based revenue. Of all of ASRY's Saudi Arabian business in 2014, more than 60% of it came from the Offshore Services division.

In 2014, the major jobs that took place included three of Saudi Aramco's jack ups that underwent repair and maintenance; 'ARB 1', 'ARB 2' and 'ARB 3'.



IRAO

Iraqi Oil Sector... Continuous Success in spite of Security and Economic Challenges



Iraq's Oil Minister HE Adel Abdul Mahdi stated that the Iraqi oil sector is steadily progressing in spite of all the economic and security challenges as well as the drop of oil prices.

The Minister said that the Iraqi Oil Ministry, in collaboration with other official bodies, paid \$9 billion as part of the remaining payments to foreign oil companies for the year 2014. He added that Iraq has also made payment of the first quarter of 2015 dues and is currently working on paying off the second payment. The third payment should be done before the end of the year 2015. The fourth payment will be done at the beginning of 2016.

He explained that launching Basra heavy crude along with Basra light in the markets led to a rapid increase in production starting from June 2015 by 200,000 to 300,000 barrels per day. The production achieved an estimated \$220-250 million a month even with the calculation of heavy oil for light oil price difference.

HE Abdul Mahdi expected Iraq's southern ports exports to exceed what was estimated in the budget of 2015, i.e. 2.750 million barrels per day by the end of the year. Since June, Iraq has been exporting from the southern ports some over 3 million barrels per day. He added 'If Iraqi Oil Marketing Company (SOMO) had received what has been agreed on with the Kurdistan Regional Government, Iraqi exports would have had exceeded budget estimates of 3.3 million barrels per day to exceed 3.5 million barrels per day, especially if we added 200-250 thousand barrels/day supplied to the Ministry of Electricity. We would have had also far surpassed what we committed ourselves to do in the budget estimates for 2015, which contributed in no small part to alleviate some of the burdens of lower oil prices."

UAE's liberalized fuel prices to take effect in August

The UAE's Energy Ministry announced liberalizing fuel prices. A pricing mechanism conforming to international standards has been endorsed and should take effect in August. The decision aims at supporting the country's economy, conserving energy, preserving natural resources, and protecting the environment. The new price-setting committee will review the pricing regime on a monthly basis. The committee is headed by HE the Energy Ministry's Undersecretary with senior officials from the energy sector as members.

The Minister of Energy HE Engineer Suhail Al Mazrouei said that the deregulating decision came in line with international trends on liberalizing markets and enhancing competition. The decision was taken following thorough studies that proved its economic, social, and environmental feasibility. The decision also conforms to the UAE's strategic vision to diversify sources of income, strengthen the economy and increase its competitiveness in addition to build a strong economy that is not dependent on government subsidies.

Al Mazrouei added that the transportation sector accounts for more than 22% of the greenhouse emissions in the UAE, therefore, reducing individual car use will have a positive impact in this regard.

According to HE Dr Matar Al Nyadi, Undersecretary of the Ministry of Energy and Chairman of the Petrol and Diesel Prices Committee, the role of the energy and finance ministries, as government representatives in the committee, will focus on consumer protection and ensure that petrol prices are balanced according to international standards. He added that the pricing mechanism will be structured in a way that it does not rely on just one global market and will facilitate distribution companies' position to make reasonable profits and to limit their losses while offering premium services.





KUWAIT

Financial allocations increased for petroleum projects in Kuwait



Minister of Oil and Minister of State for National Assembly Affairs HE Dr. Ali Al Omair considered that the drop in oil prices has affected some oil products and dropped their prices noting that the current bet is on the growth of the global economy that he expected to upsurge once again to accommodate the excess shares, amounting to 1,200,000 barrels. Al Omair said in a press statement to the Kuwaiti newspaper Al Qabas 'we expect that by the end of 2016 there will be additional demand exceeds one million barrels per day noting that Kuwait will maintain its share of the global market due to the distinguished relations with the importing countries.' The minister revealed that Kuwait earmarked about \$60 billion in oil projects, including clean fuel and heavy oil in the north and at Al Zour refinery and the gathering centres. He pointed out that Kuwait's Supreme Petroleum Council has agreed to increase the budget of Al Zour refinery project by KD 871 million to become KD 4 billion and 871 millions, pointing out that the refinery is one of the Middle East's biggest refineries with a refining capacity of around 600,000 to 800,000 barrels per day, and that it will meet the needs of the new power plants for the oil fuel with low sulfur content.



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3D Transition Zone Survey Launched in Kuwait

Kuwait Oil Company (KOC) launched a 3D Transition Zone survey in Kuwait bay (Arabian Gulf) in collaboration with China's BGP. The project will examine the lower formations to decide the amount of reserves in Kuwait's bay and its surroundings. The survey will also cover an area starting from the north of Burqan oilfield (Southern Kuwait) to Bahra oilfield (Northern Kuwait). The project is a continuation of a series of 3D exploration surveys.

Kuwait bay and Kuwait City surveys are usually referred to as (shallow waters surveys), which are usually complex due to the variety of energy resources used in them, including multiple types of seismic sources like vibroseis, explosives, shallow and deep air gun sources.

Kuwait Awards Contracts for Al Zour Refinery Project

Kuwait National Petroleum Co (KNPC) has awarded KD 3.483billion of contracts (of different packages) for its Al Zour refinery project. KNPC has awarded a KD1.283billion contract (the first package) to a consortium of Tecnicas Reunidas, Sinopec and Hanwha Engineering and Construction to build the main process units of the refinery over a period of 45 months.

Another group including Daewoo Engineering & Construction Co., Hyundai Heavy Industries Co., and Fluor Corp has been awarded two groups of contracts (second and third packages) valued at KD1.745

billion over a period of 45 months for infrastructure and support units.

The fifth package valued at KD454.256 million was given to a group including Hyundai Engineering, SK Engineering, and Saipem to build the marine export terminal over a period of 45months.

The fourth package of the project is expected to be awarded later.

The new Al Zour will be one of the biggest refineries in the world, and one of the most important petroleum projects in Kuwait. The initial cost of the Al Zour refinery is estimated at KD 4 billion (about \$14billion).

BAHRAIN

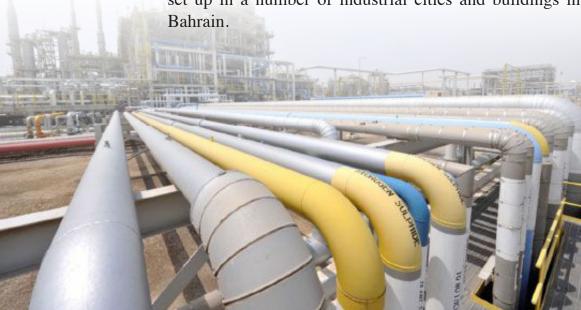
Bahrain Field: New Developments



HE Dr Abdulhussain Mirza, Bahrain's Energy Minister, said that The Bahrain Field project has increased oil production by about 70% since the it started in December 2009. The field's production went up from 32,000 b/d in 2009 to 55,000 b/d beginning of June 2015. The field's non-associated natural gas production capacity has also risen to more than 2200 million cubic feet per day. This has enabled NOGA to meet all gas demands in the various sectors like power generation and industry.

The Minister added that the energy sector in Bahrain is executing a number of giant petroleum projects including: the development of Bahrain's Refinery (BAPCO) at an estimated cost of \$5 billion over a period of 10 years, and the project on the increase of the capacity of Saudi crude pipeline at an estimated cost of \$350 million.

HE Dr Mirza pointed out to Bahrain's energy sector plans on renewable energy production as parallel to conventional energy. BAPCO has finalized its solar energy project in the second half of 2014. Solar panels have been set up in a number of industrial cities and buildings in Pahrain



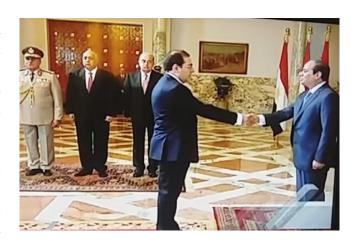
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EGYPT

HE Engineer Tariq Al Mulla Egypt's New Petroleum and Energy Resources Minister

HE Engineer Tariq Al Mulla, took oath before the Egyptian President HE Abdul Fattah El Sissi, on the occasion of his appointment as Egypt's new Petroleum and Energy Resources Minister, in succession to HE Engineer Sherif Ismail, who is appointed Egypt's new Prime Minister.

In a press statement published on the Petroleum and Mineral Resources Ministry's website following the appointment ceremony, HE Al Mulla said that securing domestic market supplies and



current and future development projects adopted by the State for a better future, come on top of the petroleum action plan. The Minister pointed out that the Egyptian petroleum sector manages huge investments and strong mega projects while enjoying distinguished petroleum relations both regionally and internationally. The sector is also trusted by foreign investors and partners while having a clear strategic vision.

HE Al Mulla said that the petroleum industry in his country is witnessing and will witness in the coming phase acceleration of exploration activities to increase reserves and crude oil and natural gas production through launching international bids and concluding new agreements. This is in addition to close monitoring of the recently signed agreements and encouraging foreign partners to speed up the execution of exploration programmes, especially after the important Mediterranean discovery in a new geological formation by one of these agreements.

On another note, HE Abbas Ali Al Naqi, OAPEC Secretary General, has sent a cable of congratulations to HE Al Mulla on the occasion of his appointment in his new position. HE Al Naqi wished the minister all success while hailing Egypt's huge and continuous support for OAPEC.

HE Engineer Jamal Hijazy Appointed Egypt's Representative at OAPEC Executive Bureau

OAPEC Secretariat General received a letter of from Egypt's Petroleum and Mineral Resources Minister, HE Engineer Sherif Ismail, appointing HE Engineer Jamal Abdul Hamid Hejazy, Deputy Chairman for Planning and Projects, Egyptian Natural Gas Holding Company (EGAS), as the country's Representative at OAPEC Executive Bureau, in succession of HE Engineer Amr Abdul Halim, as of 31 August 2015.



HE Abbas Ali Al Naqi, OAPEC Secretary General, sent a cable of congratulations to HE Hijazy on his new appointment. HE Al Naqi also sent a cable to HE

Abdul Halim, appreciating his efforts and thanking him for all his valuable contributions throughout his tenure at OAPEC while wishing him success for the future.

"Shorouk" Largest Natural Gas Discovery in Egypt

Eni's natural gas discovery in the Shorouk Block, offshore Egypt, the "largest-ever" found in the Egyptian economic zone and in the Mediterranean Sea, opens up new horizons to other oil and natural gas explorations. It also asserts that Egypt is a promising country, and contributes to attracting more foreign investments to intensify upstream activities to support reserves and increase rates of production.

This new discovery is one of the positive outcomes of the petroleum agreements that have been signed during the last 18 months, which amounted to 56 agreements with minimum investments of more than \$ 13 billion. As a result of this, 254 wells have been drilled. Moreover, there are currently 21 new agreements going through final amendments to be announced soon.

According to ENI's report, the well and seismic information available show that the discovery could hold a potential of 30 trillion cubic feet of natural gas in place (5.5 billion barrels of oil equivalent in place) covering an area of about 100 square kilometers. Shorouk is the largest gas discovery ever made in Egypt and in the Mediterranean Sea and could become one of the world's largest natural-gas finds.

The new discovery has been drilled at a depth of 1,450 meters reaching a depth of 4131 meters in the Shorouk Block. Eni will complete drilling beginning of next year by drilling 3 wells to accelerate the discovery development and to make use of the available infrastructure. The development of the discovery is planned to take between 30 and 36 months to help mainly in meeting the domestic need of natural gas.



OIL AND ARAB COOPERATION

Issue 152



Unconventional Oil & Natural Gas Industry in North America: current status and future prospects and their implications for OAPEC member countries (Part 1)

Developments of the Euro Zone sovereign debt crisis and its implications on petroleum exports of OAPEC Members Eltaher Elzitoni

Bibliography: Arabic & English

 $\label{lem:continuous} \textbf{Refereed Journal Published Quarterly by the Organization of Arab Petroleum Exporting Countries (OAPEC)}$



In an interview with KUNA, OAPEC Secretary General:

LNG trade to grow faster than pipelines gas trade in coming years



HE Abbas Ali Al Naqi, Secretary General of the Organization of Arab Petroleum Exporting Organization (OAPEC), said in an interview with KUNA that the world is witnessing mounting demand for natural gas. Gas exporting countries transport gas to consuming markets via different methods as economic feasibility is key for deciding the method of natural gas transport, which in turn is determined by investment required for executing such projects, transport costs, and the distance between production and consumption areas.

He added that transporting gas via pipelines is widely used worldwide. However, in some cases, long distance or deep waters could hinder using this method. Natural gas can be liquefied and transported aboard tankers to reach remote markets and consumption destinations; however this transportation means is costly compared to pipelines. Gas can also be processed to GTL and exported to various markets.

HE Al Naqi said that natural gas pipeline networks can be divided- according to purpose and destination- into:

Natural gas gathering pipelines from production fields to natural gas processing plants and complexes. They can be onshore or offshore depending on natural gas production fields. Their capacity and size differ according to each field's production capacity. Domestic natural gas transmission pipeline networks. They aim at transporting natural gas from processing complexes and plants and distributing it to domestic consumers in various industrial and residential sectors.

Natural gas exports pipelines. They are used to export processed gas to regional neighborhood according to bilateral agreements between the exporting and importing countries.

HE Al Naqi explained that the gas networks in the Arab world, built last century, comprise seven main lines with a total capacity of 114 billion cubic meters per year. The goals behind building these networks have been:

To secure natural gas flow from the Arab region to Europe, especially Italy, Spain, and Portugal via pipelines stretching from Algeria and Libya across the Mediterranean.

To enhance natural gas intertrade among Arab countries and meet their natural gas needs through projects like Dolphin and the Arab Gas Pipeline.

The Secretary General spoke about the most significant Arab gas pipeline networks including the Arab Gas Pipeline stretching from Arish in Egypt to Kilis in Syria via Jordan. Qatar also exports natural gas to Abu Dhabi and Oman via Dolphin pipeline, which started operating in 2007 with a capacity estimated at about 21 billion cubic meters per year. The line's capacity has been developed recently to 33 billion cubic meters per year.

The Secretary General pointed out that the biggest part of the natural gas transport and export pipeline projects in the world is located in Asia/Eurasia regions due to their huge natural gas wealth.

HE Al Naqi said that pipelines dominate two thirds of the natural gas trade worldwide; LNG accounts for the remaining third. LNG trade is expected to grow in the coming years on the expenses of gas pipeline trade. This is due to gas exporting countries' desire to increase their exports, especially to Asian markets, which are considered currently the most important markets worldwide, particularly in light of the drop in gas exports to the US with the shale gas production boom and US plans on gas self-sufficiency. Moreover, the US will join gas exporting countries by 2017. Also, many European countries have plans to diversify their gas resources and avoid relying on a specific region for imports, which enhances the belief that these countries will import LNG from remote regions by tankers.



The 5th Gulf Intelligence Energy Markets Forum 2015



Upon a kind invitation by HE Sheikh Saleh bin Mohammed Al Sharqi the Chairman of Fujairah Department of Industry and Economy, HE Abbas Ali Al Naqi, OAPEC Secretary General, took part in the 5th Gulf Intelligence Energy Markets Forum held on 17 September 2015, Fujairah, UAE under the patronage of His Highness Sheikh Hamad bin Mohammed Al Sharqi, Member of the Supreme Council and Ruler of Fujairah.

The event was attended by a large group of officials including:

- 1. HE Abdullah bin Hamad Al Attiyah, Chairman, Abdullah Bin Hamad Al Attiyah Foundation for Energy & Sustainable Development / Qatar's Former Energy and Industry Minister.
- 2. HE Dr Matar Al Neyadi, Undersecretary, UAE's Ministry of Energy/ UAE's Representative at OAPEC Executive Bureau.
- 3. HE Saeed Mohammed Al Raqbani, Special Advisor to HH the Ruler of Fujairah.

During the forum, Arab and foreign energy and oil experts and specialists discussed current developments in the energy market.

HE Al Naqi contributed as a keynote speaker at the session discussing the energy infrastructure in Asia and the Arabian Gulf.



Recent OAPEC Study:

Energy Balance in India: Current Situation and Future Trends and their Implications for OAPEC Member Countries

OAPEC Secretariat General has recently released a study titled 'Energy Balance in India: Current Situation and Future Trends and their Implications for OAPEC

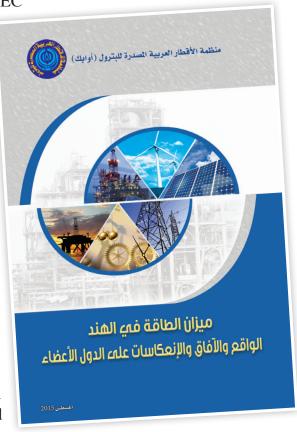
Member Countries'.

The study points out to the fact that India is one of the main consumers of energy in the world. By the end of the first decade of the 21st century, India replaced Japan as the fourth biggest energy consumer in the world following China, USA, and Russia. India's share of the total world's primary energy consumption has doubled from 2.2% in 1990 to 4.9% in 2014. India's relative importance is expected to grow in the coming years for two main reasons: the expected increase in population and the projected growth of the Indian economy.

The study explains that India faces huge challenges in connection to the development of its energy sector. These challenges are described by The World Energy Council as a 'trilemma' represented in providing clean energy with reasonable

prices. Also, India's energy policy seeks to achieve three main targets: obtaining energy, energy security, and climate change.

The study consists of five main focal points: energy balance, energy consumption projections, energy and environment, oil imports and exports, and the implications of India's future energy demand for the petroleum exports from OAPEC member countries.





23rd Forum on Fundamentals of Oil & Gas Industry

State of Kuwait, 4-7 October 2015



1. Oil Market

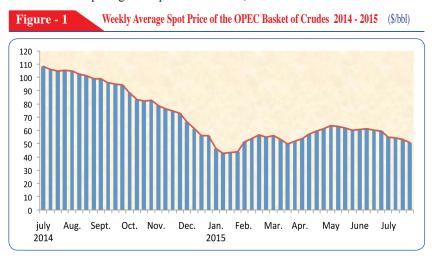
1. Prices

1-1Crude Oil Prices

Weekly average price of OPEC basket decreased during the first week of July 2015, recording \$55.1/bbl, and continued to decline thereafter, to reach its lowest level of \$50.9/bbl during the fourth week, as shown in figure 1:

On monthly basis, OPEC Reference Basket in July 2015, averaged \$54.2/bbl, representing a decrease of \$6/bbl or 10% comparing with previous month, and

a decrease of \$51.4/bbl or 48.7% from the same month of previous year, sustained supply-side pressure. Problems recorded on Global economy, as well as, Chinese factory activity weakened to its lowest reading in two vears and its fifth successive monthly contraction and the consumer confidence index weakened to an eight month low In the US, were major stimulus for the decrease in oil prices during the month of July 2015.



Key Indicators

- In July 2015, OPEC Reference Basket decreased by 10% or \$6/bbl from the previous month level to stand at \$54.2/bbl.
- World Oil Demand in July 2015, decreased by 1% or 1 million b/d from the previous month level to reach 95.6 million b/d.
- World oil supplies in July 2015, increased by 0.3% or 0.3 million b/d from the previous month level to reach 98.1 million b/d.
- **US tight oil production** in July 2015, **decreased** by 1.4% to reach 5.5 million b/d. whereas **US oil rig count** increased by 1 rig from the previous month level to stand at 579 rig.
- **US crude oil imports** in June 2015, **decreased** by 0.6% from the previous month level to reach 7 million b/d, whereas **US product imports increased** by 4% to reach about 2.2 million b/d.
- OECD commercial inventories in June 2015 increased by 10 million barrels from the previous month level to reach 2917 million barrels, and Strategic inventories in OECD-34, South Africa and China increased by 2 million barrels from the previous month level to reach 1855 million barrels.
- The average spot price of natural gas at the Henry Hub in July 2015 increased by \$0.05/million BTU from previous month level to reach \$2.81/million BTU.
- The Price of Japanese LNG imports decreased in June 2015 by \$0.1/m BTU to reach \$8.6/m BTU, the Price of Korean LNG imports decreased by \$0.4/m BTU to reach \$9.1/m BTU, whereas the Price of Chinese LNG imports increased by \$0.7/m BTU to reach \$9.5/m BTU.
- Arab LNG exports to Japan, Korea and China were about 3.708 million tons in June 2015 (a share of 36.6% of total imports).

^{*} Prepared by the Economics Department.



Table (1) and figure (2) show the change in the price of the OPEC basket versus last month and the corresponding month of last year:

	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan. 2015	Feb.	Mar.	Apr.	May	June	July
OPEC Basket Price	105.6	100.8	96.0	85.1	75.6	59.5	44.4	54.1	52.5	57.3	62.2	60.2	54.2
Chamge From previous Month	-2.3	-4.9	-4.8	-10.9	-9.5	-16.1	-15.1	9.7	-1.6	4.8	4.9	-2.0	-6.0
Change from same month of previous Year	1.2	-6.8	-12.7	-21.6	-29.4	-48.2	-60.3	-51.3	-51.7	-47.0	-43.3	-47.7	-51.4

^{*} Effective June 16,2005 OPEC replaced its seven-crude basket with one comprised of eleven crudes, one from each member country (weighted according to production and exports to major markets). Effective 1 January and mid of October 2007, Angola's Girassol and Ecuadorian Oriente crudes have been incorporated to become the 12th and 13th crudes comprising the new OPEC Basket. As of Jan.2009, the basket excluded the Indonesian crude.

Figure - 2 Change in the Price of the OPEC Basket of Crudes, 2014-2015 (\$/bbl)

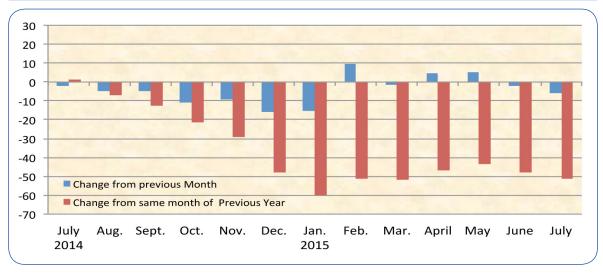


Table (3) in the annex show spot prices for OPEC basket and other crudes for the period 2013-2015.

1-2 Spot Prices of Petroleum Products

- US Gulf

In June 2015, the spot prices of premium gasoline increased by 8.3% or \$8/bbl comparing with their previous month levels to reach \$104.3/bbl, whereas spot prices of gas oil decreased by 6.5% or \$5/bbl to reach \$72.5/bbl, and spot prices of fuel oil decreased by 4.9% or \$2.7/bbl to reach \$52.8/bbl.

- Rotterdam

The spot prices of premium gasoline increased in June 2015, by 6.8% or \$6/bbl comparing with their previous month levels to reach \$93.7/bbl, whereas spot prices of gas oil decreased by 3.5% or \$2.8/bbl to reach \$76.4/bbl, and spot prices of fuel oil decreased by 4.4% or \$2.3/bbl to reach \$50.3/bbl.

- Mediterranean

The spot prices of premium gasoline increased in June 2015, by 4% or \$3.3/bbl comparing with previous month levels to reach \$86.2/bbl, whereas spot prices of gas oil decreased by 3.5% or \$2.8/bbl to reach \$78.2/bbl, and spot prices of fuel oil decreased by 4.2% or \$2.3/bbl to reach \$51.9 bbl.

- Singapore

The spot prices of premium gasoline increased in June 2015, by 0.4% or \$0.3/bbl comparing with previous month levels to reach \$84/bbl, whereas spot prices of gas oil decreased by 3.9% or \$3.1/bbl to reach \$76.7/bbl, and spot prices of fuel oil decreased by 6.9% or \$4.2/bbl to reach \$57.1/bbl.

Figure (3) shows the price of Premium gasoline in all four markets from June 2014 to June 2015.

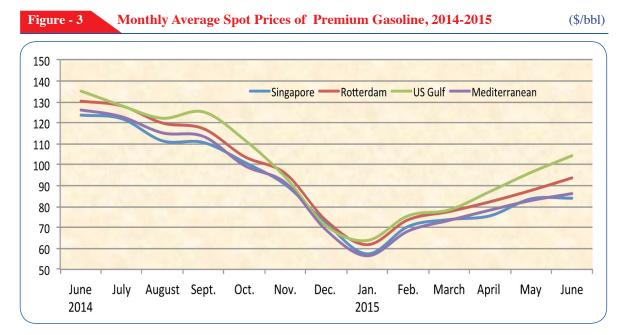


Table (4) in the annex shows the average monthly spot prices of petroleum products, 2013-2015.

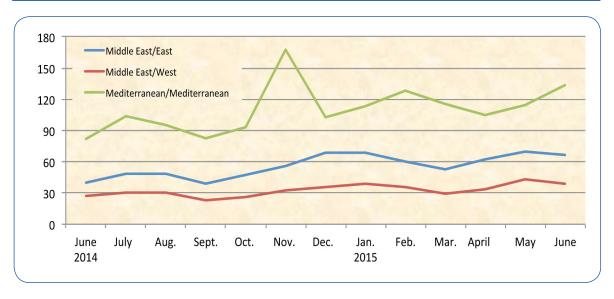


1-3 Spot Tanker Crude Freight Rates

In June 2015, Freight rates for crude oil for tanker size (230-280 thousand deadweight tons (dwt)), leaving Middle Eastern ports to the East, decreased by 3 points or 4.3% comparing with previous month to reach 67 points on the World Scale (WS*), and freight rates for crude oil for tanker size (270-285 thousand deadweight tons (dwt)), leaving Middle Eastern ports to the West, decreased by 4 points or 9.3% comparing with previous month to reach 39 points on the World Scale (WS), whereas freight rates for inter - Mediterranean for small to medium sized tankers (80-85 thousand deadweight tons (dwt)), increased by 19 points or 16.5% comparing with previous month to reach 134 points on the World Scale (WS).

Figure (4) shows the freight rates for crude oil to all three destinations from June 2014 to June 2015.

Figure - 4 Monthly Spot Crude Oil Tanker Freight Rates, 2014 -2015 (World Scale)*



* World Scale is a method for calculating freight prices. One point for the WS means 1% of the standard price of freight in the direction in the WS book, which is published annually by the World Scale Association. The book contains a list of prices in the form of US dollar per ton, called "World Scale 100," for all the major routes in the world.

1-4 Spot Tanker Product Freight Rates

In June 2015, monthly spot Tanker freight rates for petroleum products [for tanker size 30-35 thousand deadweight tons (dwt)], leaving Middle Eastern ports to the East, increased by 20 points, or 16.5% comparing with previous

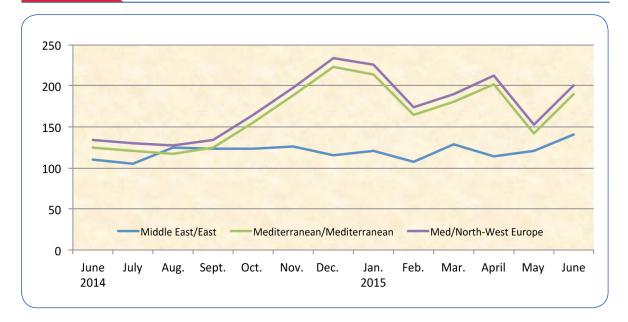
month to reach 141 points on WS, freight rates for Petroleum Products across Mediterranean [for tanker size 30-35 thousand deadweight tons (dwt)], increased by 48 points, or 33.8% to reach 190 points on WS, and freight rates for petroleum products [for tanker size 30-35 thousand deadweight tons (dwt)], leaving Mediterranean to North-West Europe also increased by 48 points, or 31.6% to reach 200 points on WS.

Figure (5) shows the freight rates for oil products to all three destinations from June 2014 to June 2015.

Table (5) and (6) in the annex show crude and products Tankers Freight Rates, 2013-215.

Figure - 5 Monthly Spot Product Tanker Freight Rates, 2014 -2015

(World Scale)



2. Supply and Demand

Preliminary estimates in July 2015 show a decrease in world oil demand by 1% or 1 million b/d, comparing with the previous month to reach 95.6 million b/d, representing an increase of 2.1 million b/d from their last year level.

Demand in OECD countries increased by 2% or 0.9 million b/d comparing with their previous month level to reach 46.9 million b/d, representing an increase of 0.9 million b/d from their last year level. whereas demand in Non-OECD countries decreased by 3.6% or 1.8 million b/d comparing with their previous month level to reach 48.8 million b/d, representing an increase of 1.3 million b/d from their last year level.



On the supply side, preliminary estimates show that world oil supplies for July 2015 increased by 0.3% or 0.3 million b/d comparing with the previous month level to reach 98.1 million b/d, a level that is 4.1 million b/d higher than last year.

In July 2015, OPEC crude oil and NGLs/condensates total supplies increased by 0.3% or 0.1 million b/d comparing with the previous month level to reach 38.5 million b/d, a level that is 1.9 million b/d higher than last year. Similarly Preliminary estimates show that Non-OPEC supplies increased by 0.2% or 0.1 million b/d comparing with the previous month level to reach 59.6 million b/d, a level that is 2.3 million b/d higher than last year.

Preliminary estimates of the supply and demand for July 2015 reveal a surplus of 2.4 million b/d, compared to a surplus of 1.2 million b/d in June 2015 and a surplus of 0.4 million b/d in July 2014, as shown in table (2) and figure (6):

Tables (7) and (8) in the annex show world oil demand and supply for the period 2013-2015.

Table 2 World Supply and Demand

(Million b/d)

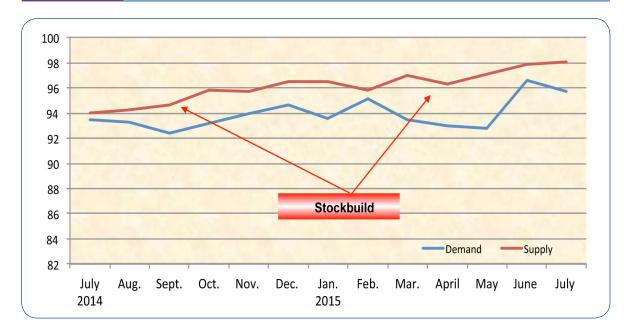
	July 2015	June 2015	Change from June 2015	July 2014	Change from Jul y 2014
OECD Demand	46.9	46.0	0.9	46.0	0.9
Rest of the World	48.8	50.6	-1.8	47.5	1.3
World Demand	95.6	96.6	-1.0	93.5	2.1
OPEC Supply:	<u>38.5</u>	38.4	0.1	<u>36.6</u>	<u>1.9</u>
Crude Oil	32.0	31.9	0.1	30.2	1.8
NGL's & Cond.	6.5	6.5	0.0	6.4	0.1
Non-Opec Supply	57.3	57.2	0.1	55.0	2.3
Processing Gain	2.3	2.3	0.0	2.3	0.0
World Supply	98.1	97.8	0.3	94.0	4.1
Balance	2.4	1.2		0.4	

Source: Energy Intelligence Briefing August 7, 2015.

Figure - 6 World Su

World Supply and Demand

(Million b/d)



US tight oil production

In July 2015, US tight oil production decreased by 80 thousand b/d or 1.4% comparing with the previous month level to reach 5.452 million b/d, representing an increase of 661 thousand b/d from their last year level. Whereas, the US oil rig count increased by 1 rig comparing with the previous month level to reach 579 rig, a level that is 689 rig lower than last year, as shown in table (3) and figure (7):

	le	

US* tight oil production

(Million b/d)

	July 2015	June 2015	Change from June 2015	July 2014	Change from July 2014
tight oil production	5.542	5.532	-0.080	4.791	0.661
Oil rig count (rig)	579	578	1	1268	-689

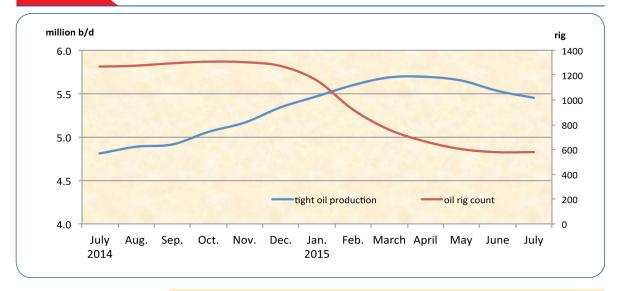
 $Source: EIA, Drilling\ Productivity\ Report\ for\ key\ tight\ oil\ and\ shale\ gas\ regions, August\ 2015.$

^{*} focusing on the seven most prolific areas, which are located in the Lower 48 states. These seven regions accounted for 95% of domestic oil production growth during 2011-13 (Bakken, Eagle Ford, Haynesville, Marcellus, Niobrara, Permian, Utica)

Figure - 7

US tight oil production and oil rig comt

(Million b/d)



3.Oil Trade

USA

In June 2015, US crude oil imports decreased by 45 thousand b/d or 0.6% comparing with the previous month level to reach 7 million b/d, whereas US oil products imports increased by 85 thousand b/d or 4% to reach about 2.2 million b/d.

On the export side, US crude oil exports increased by 52 thousand b/d or 11.5% comparing with the previous month level to reach about 506 thousand b/d, and US products exports increased by 112 thousand b/d or 3% to reach 3.5 million b/d. As a result, US net oil imports in June 2015 were 124 thousand b/d or nearly 2.3% lower than the previous month, averaging 5.1 million b/d.

Canada remained the main supplier of crude oil to the US with 40% of total US crude oil imports during the month, followed by Saudi Arabia with 16%, then Venezuela with 12%. OPEC Member Countries supplied 40% of total US crude oil imports.

Japan

In June 2015, Japan's crude oil imports decreased by 369 thousand b/d or 11% comparing with the previous month to reach 2.9 million b/d, the lowest level Japan has seen in many years, and Japan oil product imports also decreased by 129 thousand b/d or 19% comparing with the previous month to reach 557 thousand b/d.

On the export side, Japan's oil products exports increased in June 2015, by 53 thousand b/d or 11% comparing with the previous month, averaging 517 thousand b/d. As a result, Japan's net oil imports in June 2015 decreased by 551 thousand b/d or 16% to reach 3 million b/d.

UAE was the big supplier of crude oil to Japan with 32% of total Japan crude oil imports, followed by Saudi Arabia with 29% and Russia with 9% of total Japan crude oil imports.

China

In June 2015, China's crude oil imports increased by 1.7 million b/d or 31% to reach 7.2 million b/d, and China's oil products imports increased by 280 thousand b/d or 28% to reach 1.3 million b/d.

On the export side, China's oil products exports decreased in June 2015 to reach 11 thousand b/d, whereas China's oil products exports increased by 212 thousand b/d or 30% to reach 920 thousand b/d. As result, China's net oil imports reached 7.5 million b/d, representing an increase of 31% comparing with the previous month.

Saudi Arabia remained the main supplier of crude oil to China with 18% of total China's crude oil imports during the month, followed by Russia with 13% and Iraq with 11% of total China's crude oil imports.

Table (3) shows changes in crude and oil products net imports/(exports) in June 2015 versus the previous month:

Table 4 USA, Japan and China Crude and Product Net Imports / Exports (Million bbl/d)

		Crude O	il	oil Products				
	June 2015	May 2015	Change from May 2015	June 2015	May 2015	Change from May 2015		
USA	6.486	6.583	-0.097	-1.331	-1.304	-0.027		
Japan	2.936	3.305	-0.369	0.041	0.233	-0.182		
China	7.185	5.457	1.728	0.356	0.288	0.068		

Source: OPEC Monthly Oil Market Report, various issues 2015.

4. Oil Inventories

In June 2015, OECD commercial oil inventories increased by 10 million barrels to reach 2917 million barrels – a level that is 243 million barrels higher than a year ago. It is worth mentioning that during the month, commercial crude inventories in OECD decreased by 4 million barrels to reach 1167 million barrels, whereas commercial oil products inventories increased by 14 million barrels to reach 1750 million barrels.

Commercial oil inventories in Americas increased by 16 million barrels to reach 1545 million barrels, of which 624 million barrels of crude and 921 million barrels of oil products. Commercial oil Inventories in Europe decreased by 3 million barrels to reach 944 million barrels, of which 343 million barrels of crude and 601 million barrels of oil products. Commercial oil inventories in Pacific decreased by 3 million barrels, to reach 428 million barrels, of which 200 million barrels of crude and 228 million barrels of oil products.



In the rest of the world, commercial oil inventories increased by 40 million barrels to reach 2583 million barrels, whereas the Inventories at sea decreased by 7 million barrels to reach 1076 million barrels.

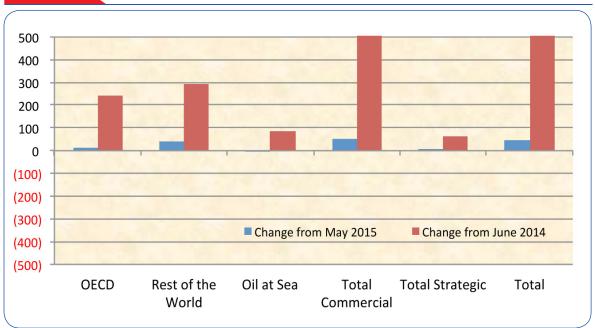
As result, Total Commercial oil inventories in June 2015 increased by 50 million barrels comparing with the previous month to reach 5500 million barrels – a level that is 534 million barrels higher than a year ago.

Strategic inventories in OECD-34, South Africa and China increased by 2 million barrels comparing with the previous month to reach 1855 million barrels – a level that is 60 million barrels higher than a year ago.

Total world inventories, at the end of June 2015 were at 8431 million barrels, representing an increase of 45 million barrels comparing with the previous month, and an increase of 677 million barrels comparing with the same month a year ago.

Table (9) in the annex and figure (8) show the changes in global inventories prevailing at the end of June 2015.





II. The Natural Gas Market

1- Spot and Future Prices of Natural Gas in US market

The monthly average of spot natural gas price at the Henry Hub in July 2015 increased by \$0.05/million BTU comparing with the previous month to reach \$2.81/million BTU.

The comparison, shown in table (5), between natural gas prices and the WTI crude reveal differential of \$6/ million BTU in favor of WTI crude.

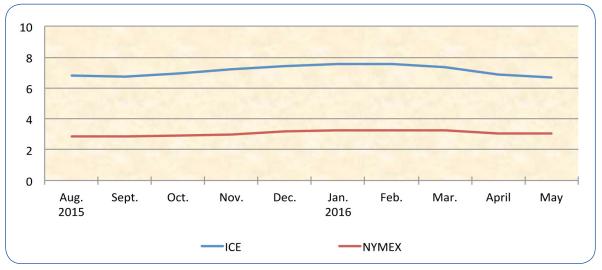
Table 5	Henry	Henry Hub Natural Gas, WTI Crude Average, and Low Sulfur Fuel Oil Spot Prices, 2014-2015								(Mil	llion BTU1)		
	July 2014	Aug.	Sept.	Oct.	Nov.	Dec.	Jan. 2015	Feb.	Mar.	Apr.	May	June	July
Natural Gas (2)	3.8	3.9	3.9	3.9	4.1	3.2	3.0	2.8	2.8	2.6	2.8	2.8	2.8
WTI Crude (3)	17.7	16.6	16.1	14.6	13.1	10.3	8.2	8.8	8.2	9.4	10.2	10.3	8.8

- 1. British Thermal Unit.
- 2. Henry Hub spot price.
- 3. WTI West Texas Intermediate Crude oil price, in dollars per barrel, is converted to dollar per million BTU using a conversion factor of 5.80 million BTU/bbl.

Source: World Gas Intelligence August 5, 2015.

Futures gas prices recorded on July 13, 2015, indicate that those quoted at the London's ICE were higher than those quoted at the NYMEX for the period from August 2015 to May 2016, with maximum differential of \$4.29/ million BTU in February 2016. These developments are shown in figure (9).

Figure - 9 Gas Futures, July 13, 2015 (\$/Million BTU)



Source: World Gas Intelligence July 15, 2015.

2- Asian LNG Markets

In June 2015, the price of Japanese LNG imports decreased by \$0.1/million BTU comparing with the previous month to reach \$8.6/million BTU, and the price of Korean LNG imports decreased by \$0.4/million BTU comparing with the previous month to reach \$9.1/million BTU, whereas the price of Chinese LNG imports increased by \$0.7/million BTU comparing with the previous month to reach \$9.5/million BTU.

Total Japanese, Korean and Chinese LNG imports from various sources, increased by 9.7% or 892 thousand tons from the previous month level to reach 10.134 million tons.



The Arab countries LNG exports to Japan, Korea and China totaled 3.708 million tons - a share 36.6% of total Japanese, Korean and Chinese LNG imports.

Table (6) shows the prices and quantities of LNG imported by Japan, South Korea, and China for the period 2013-2015.

Table6

LNG Prices and Imports: Korea, Japan, and China 2013-2015

		Impo		10.Ave	rage Impor	t Price			
		(thousan	d tons)		(\$/million BTU)				
	Japan	Korea	China	Total	Japan	Korea	China		
2013	87490	40175	17997	145662	16.0	14.7	11.1		
2014	104669	44622	23673	172964	18.5	18.6	13.5		
January 2014	8179	4451	2652	15282	16.7	15.5	13.3		
February	7511	4194	1498	13203	16.8	16.5	11.7		
March	8044	4115	1479	13638	16.6	16.5	12.0		
April	7212	3220	1375	11807	16.8	16.4	10.8		
May	6495	2212	1579	10286	16.3	16.3	11.4		
June	6821	2207	1343	10371	16.1	16.6	11.2		
July	7838	2182	1835	11855	16.1	16.3	10.3		
August	7050	2543	1582	11175	15.7	16.2	11.7		
September	7276	2302	1394	10972	15.2	16.5	12.2		
October	6944	2755	1381	11080	15.9	16.2	12.3		
November	6877	2932	1757	11566	15.6	15.9	11.6		
December	8258	4289	2016	14563	15.6	16.1	12.1		
January 2015	8434	4122	2121	14677	15.1	14.3	11.1		
February	7730	3098	1661	12489	13.3	13.4	10.3		
March	8137	3048	1346	12531	12.2	13.1	10.1		
April	6598	2839	1545	10982	10.2	11.7	8.1		
May	5755	2364	1123	9242	8.7	9.5	8.8		
June	6633	1777	1724	10134	8.6	9.1	9.5		

Source: World Gas Intelligence various issues.

JORDAN

Jordan has laid the foundation stone for the construction of a storage capacity for petroleum products in south of Amman. The development project will be financed by a grant from UAE to Jordan. The grant comes as part of the \$5 billion GCC grant to the kingdom, of which the UAE's contribution amounted to 4.6 UAE Dirham (\$1.25bn). The project aims to provide a storage capacity of petroleum products (diesel, gasoline, jet fuel) of approximately 340,000 tons. The project will also provide a storage capacity for the liquefied petroleum gas of approximately 10,000 tons at a cost of 771 million Dirham (\$210 million).

Under this grant, the UAE government entrusted to the Abu Dhabi Fund for Development, the management and finance of vital projects, which are closely associated with efforts to promote economic and social development in Jordan.

OMAN _____

Oman posted a record daily oil production in July 2015, exceeding the 1 million barrel a day mark for the first time in Oman's history. Omani Oil and Gas Ministry's monthly report stated that the country pumped 31,033,517 barrels in July 2015, or 1,001,081 barrels per day (bpd) of crude and condensates, up 0.48% from the daily average in June 2015.

EI

The EU's anti monopoly enforcement authorities have suspended their report on the \$35 billion deal for Halliburton to acquire Baker Hughes due to the failure of the two companies to provide the required data. A new date should be set to announce the decision on the deal once all required data have been received. The new date will replace the planned one on 27August2015. Some voiced their rejection of the deal in the USA due to concerns over monopoly.

USA

The US government Shell the final permit it needs to drill for oil in the Arctic Ocean off Alaska's northwest coast for the first time in more than two decades. Shell is free to drill into oil-bearing rock, estimated at 8,000 feet below the ocean floor, for the first time since its last exploratory well was drilled in 1991. Shell suspended drilling activities in the region back in 2012 due to accidents resulting from harsh weather conditions.



Tables Annex



Pursuant to its policy of encouraging scientific research by awarding two prizes on a biennial basis (First Prize KD 7000, Second Prize KD 5000, equivalent to USD \$24000 and USD \$17000), upon the resolution number 1/139 of OAPEC Executive Bureau at its meeting dated 12/10/2014. The Organization of Arab Petroleum Exporting Countries (OAPEC) is pleased to announce that the research topic selected for the "OAPEC Award for Scientific Research for the Year 2016" is:

"Re-Refining of Used Lubricating Oils and its Economic & Environmental Implications"

Research Theme

OAPEC members' increasing interest in re- refining of used lubricating oils comes in line with their efforts to improving the performance of oil industry, seizing the added value opportunities, and maximizing the utilization of their natural resources, in addition to enhance their compliance with the requirements of the legislation related to environment protection.

The following main issues are suggested for the research, to which the researcher is encouraged to add other suitable aspects:

- 1- Historical overview of used lube oils re-refining processes.
- 2- Sources and evaluation of used lube oils.
- 3- Types of used lube oils re-refining processes.
- 4- Environmental implications of re-refining of used lube oils.
- 5- Economic viability of the re-refining process and its role in improving the added value of oil industry and natural resources conservation.
- 6- Examples and case studies of used oils re-refining projects worldwide and in Arab countries.
- 7- Conclusions and recommendations.

Conditions for Submitting the Research

- 1- The research may be submitted by one or more author(s). Institutions and organizations are excluded.
- 2- The research submitted must be new and original, and has not been granted an award previously.
- 3- The author(s) shall agree in advance to give OAPEC the right to print and publish the research in case his/her/their win one of the prizes. A signed statement to this effect must be submitted with the research (sample provided below). The author(s) will maintain all other rights, including patent rights (if applicable). OAPEC shall not exercise its right to publish the winning research for a period of six months commencing with the date of advising the winning author (s) with the decision of the Award Committee.

- 4- A statement by the author(s), attesting that the research is original. Segments fully or partially adopted from other sources should be properly cited. A detailed list of all references used must also be attached.
- 5- Four hard copies and a digital copy of the research (either in Arabic or English) should be submitted, along with the Curriculum Vitae of each researcher, to the Organization of Arab Petroleum Exporting Countries.
- 6- The deadline for submitting the research is 31st May, 2016. No submission will be accepted after that date.
- 7- Prizes are awarded to individuals of all nationalities advised of the Award Committee's decision.
- 8- The award will not be presented twice consecutively to the same recipient.
- 9- Any research that does not fulfill the above conditions shall be disregarded.

Researchers will be notified by OAPEC Secretariat of the Award Committee's decision. The winners will be officially announced at the end of the OAPEC's Ministerial Council in 2016.

For further information you may contact the OAPEC General Secretariat at:

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Organization of Arab Petroleum Exporting Countries (OAPEC) OAPEC AWARD FOR SCIENTIFIC RESEARCH FOR THE YEAR 2016 TOPIC

"Re-Refining of Used Lubricating Oils and its Economic and Environmental Implications"

Statement of relinquishment of printing and publication right for the research I, undersigned:
Hereby undertake to relinquish all printing and publications right of the research submitted by me entitled:
to the Organization of the Arab Petroleum Exporting Countries (OAPEC), in the event of winning one of the two prizes of OAPEC Award for Scientific Research for the year 2016.
Name:
Signature: