



# OAPEC

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## THE 23<sup>RD</sup> FORUM ON THE FUNDAMENTALS OF OIL AND GAS INDUSTRY

## THE 15<sup>TH</sup> MEETING OF EXPERTS ON NATURAL GAS INVESTMENT COOPERATION POTENTIALS IN OAPEC MEMBER COUNTRIES

## 2<sup>ND</sup> KUWAIT OIL & GAS CONFERENCE AND EXHIBITION (KOGS 2015) INTRODUCED LATEST PETROLEUM INDUSTRY TECHNOLOGY

## THE 142<sup>ND</sup> MEETING OF OAPEC EXECUTIVE BUREAU



# 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.





# The 23<sup>rd</sup> Forum on the Fundamentals of Oil and Gas Industry: Current Developments in the World and Arab Energy Industry

OAPEC Secretariat General held the 23<sup>rd</sup> Forum on the Fundamentals of Oil and Gas Industry, from 4 to 7 October 2015, at its headquarters in the State of Kuwait. The event was attended by a group of petroleum specialists and lecturers from OAPEC member countries. They presented a series of invaluable lectures and scientific papers on all petroleum industry's relevant topics ranging from the basics of oil and gas production and exploration, to petroleum downstream industries (refining and petrochemicals), petroleum transportation, as well as, current and future developments in the petroleum markets, environmental issues, climate change, and petroleum media.

The scientific papers presented at the forum provided some important conclusions on the petroleum industry; most important of which stressed the close connection between the oil and gas sector and the development process in the Arab countries by using them as a source of energy and raw material in various economic sectors and for domestic consumption; as well as, being the source of revenues spent on economic and social development.

The forum also underscored the leading position of Arab countries in terms of oil reserves. By the end of 2014, Arab countries' oil reserves have been estimated at about 713 billion barrels, representing about 55.2% of the world's reserves. Saudi Arabia tops the countries with reserves of more than 265 billion barrels, followed by Iraq, Kuwait, and the UAE. By the end of 2014, Arab countries' natural gas reserves were estimated at about 54.2 trillion cubic meters, representing about 26.8% of the world's reserves.

In spite of the huge reserves of the Arab countries, which account for more than half of the world's proven reserves, their production rate is relatively modest, as Arab countries crude oil production reached about 22.9 million barrels/day, representing 31.2% of the world's total of 73.4 million barrels/day. Commonwealth countries produced about 17% of the world's daily production of the same year, while their reserves represent no more than about 9% of the world's reserves.

The forum also reviewed unconventional oil and gas production. There are currently four countries worldwide producing shale oil and/or gas in commercial quantities; namely the USA, China, Canada, and Argentina. On Arab countries' level, KSA and Algeria have plans to produce gas from unconventional resources.



On energy investment challenges, the forum highlighted the most important challenge, that is, the availability of feedstock like ethane and natural gas for the petrochemicals industry. Also, another challenge is the continuous increase in energy consumption in some Arab countries, which makes it imperative to inject more investments to meet the increasing domestic demand for energy, as well as, the continuously rising costs of petroleum projects.

The forum explained that on the medium run the continuation of the decline of oil prices might have negative impacts on the desired investments' size, since many projects would lose their feasibility in light of the falling or unstable oil prices from one side, while weakening the petroleum exporting countries' capabilities on funding their petroleum projects from the other side.

On another note, the forum discussed current and future developments with regards to the United Nations Framework Convention on Climate Change (UNFCCC), in light of expectations that a new law or protocol might be introduced to replace Kyoto Protocol once endorsed by the parties during Paris COP21 to be held in December 2015. The forum has been informed about OAPEC efforts to coordinate stances among Arab countries and international Arab organizations specialized in energy in terms of environment and climate change issues, and media campaigns targeting the oil and gas industry in OAPEC member countries.

In conclusion, by holding the 23<sup>rd</sup> Forum on the Fundamentals of Oil and Gas Industry, OAPEC Secretariat General continues to spare no effort in informing its member countries about the latest developments and technologies in all stages of the oil industry. OAPEC is keen on organizing this forum on a regular basis to allow participants to broaden their horizons about the oil and gas industry. The forum is also a good opportunity to build up closer professional ties and contacts from the middle management of the petroleum companies at OAPEC member countries.

On the occasion of organizing the 23<sup>rd</sup> Forum on the Fundamentals of Oil and Gas Industry, OAPEC Secretariat General would like to express its sincere appreciation to all the member countries that sent their participants to take part in the forum, and to all the lecturers and trainees for their sincere efforts that contributed to the success of the forum.



# The 23<sup>rd</sup> Forum on the Fundamentals of Oil and Gas Industry

## Current Developments in the World and Arab Petroleum Industry



OAPEC Secretariat General held the 23<sup>rd</sup> Forum on the Fundamentals of Oil and Gas Industry, from 4 to 7 October 2015, at its headquarters in the State of Kuwait. The event was attended by 43 participants from some OAPEC member countries including Bahrain, Saudi Arabia, Kuwait and Qatar, in addition to the Secretariat General participants.

The forum aimed at informing those working in the Arab oil industry in the member countries from the middle management about the various aspects and activities of the oil and gas industry. It also aimed at helping them develop their capabilities and broaden their professional and occupational horizons through knowing the various stages of this industry including exploration, production, refining,

and transportation. The event also highlighted economic, environmental, and media aspects relevant to the industry. A brief narration on OAPEC and its joint ventures has also been presented.

The programme included 12 lectures presented by petroleum specialists from inside and outside OAPEC Secretariat General. The lectures focused on 4 pivotal points:





technical, economic, media, and environmental. Following is a summary of the events of **The 23<sup>rd</sup> Forum on the Fundamentals of Oil and Gas Industry**.

### **Day 1: Sunday 4 October 2015**

#### **Opening Session**

Under the auspices and attendance of OAPEC Secretary General, the 23<sup>rd</sup> Forum on the Fundamentals of Oil and Gas Industry was inaugurated on Sunday 4 October 2015. Participants and local and Arabic media attended the opening ceremony.

The forum was opened by a speech of OAPEC Secretariat General **HE Abbas Ali Al Naqi**. He welcomed the participants wishing them a happy stay in Kuwait. HE Al Naqi expressed deep appreciation for the member countries that responded to the invitation stressing that their participation is an added value to the forum.

The Secretary General gave an overview on the forum’s historical development since it kicked off back in 1976. HE Al Naqi stressed the Secretariat General’s keenness on continuing to organize this event with the great support from the member countries.

HE Al Naqi then presented a lecture titled “An Overview on OAPEC and its Joint Ventures”, which tackled the history of

establishing the organization, its objectives, and its main bodies and their specialties including the Ministerial Council, the Executive Bureau, the Secretariat General, and the Judicial Tribunal. The Secretary General also tackled OAPEC’s Arab and international relations, the organization’s efforts in promoting joint Arab cooperation in the petroleum industry among the member countries, and defending its members at international fora. HE Al Naqi then talked about OAPEC’s joint ventures and their role in boosting the Arab petroleum industry.

#### **Session 1**

#### **Oil and Gas Exploration and Production**

On Sunday 4 October 2015 at 11 :30 AM, the first session of the forum was chaired by Dr Samir Al Qar’ish, Director of the Technical Affairs Department at OAPEC.



The session’s topic was a paper titled “Fundamentals of Oil and Gas Exploration and Production” presented by **Engineer Turki Hemish**, Petroleum Specialist (Drilling and Production), at the Technical Affairs Department, OAPEC. The lecturer defined a number of common terms used in the petroleum industry explaining what oil and gas are, and listing the theories on oil emergence and hydrocarbons formation.

The lecturer pointed out to the importance of the integration of available data during exploration to limit the unsuccessful drilling operations. He also explained the mechanism of well drilling and the type of tests, measures, and analysis, as well as casing, completion, perforation, until the well is ready for production.

Engineer Hemish then talked about the number of seismic survey teams, drilling activities around the world with regards to the



number of rigs operating in Arab and foreign countries, the number of wells that has been completed around the world and the number of producing wells. He also tackled the proven conventional oil reserves in the world, which produce about 23 million b/d according to statistics at the beginning of 2015. OAPEC members claim about 27% of the world's gas reserves, they marketed about 17% of the marketed natural gas in the world until the beginning of 2014.

The lecturer has shown that shale oil resources in Arab countries until today are still just unproven speculations. If they were there and eligible for production, these resources would not account for more than 4.5% of the total resources announced by the US Geological Survey; most of which are located in Arab countries at depths of more than 4000 meters. This means such reserves would need huge investments and huge quantities of water to produce such hydrocarbons. This is in addition to other obstacles.

### Day 2: Monday 5 October 2015

**The second day included two sessions: the first held at 9AM, chaired by Dr Samir**

**Al Qar'ish, Director of the Technical Affairs Department, OAPEC. It consisted of two lectures:**

### Oil Refining Industry

A paper presented by **Engineer Emad Nasef**, Senior Refining Expert, Technical Affairs Department, OAPEC. The lecturer defined what is meant by the refining industry;



he then listed the types of crude oils according to their chemical composition, or density, or their content of sulfur impurities.

The lecturer then highlighted current challenges in the oil refining industry resulting from price fluctuations of the crude oil and its products in the world markets, as well as the huge burdens of meeting the environmental legislations on improving product specifications to produce clean fuel, and eliminating the practice of polluting the environment, in addition to the high operating, building, and maintenance costs. He also pointed out to the most important procedures that can be followed to overcome these challenges, improve





workplace environment, and keep production process balanced.

In the end, the lecturer gave an overview on the oil refining industry in the Arab countries, where total refining capacity of the 51 refineries in OAPEC member countries reached about 7.55 million b/d, representing 90.72% of the 8.322 million b/d of the total refining capacity of Arab countries. The total refining capacity of the 11 refineries of the non OAPEC member Arab countries reached about 772,000 b/d, representing 9.28%.

### Lecture on the Petrochemicals Industry:

It is a paper presented by **Dr Samir Al Qar'ish**, where he mentioned that the petrochemicals industry is considered one of the important pillars of the world economy, a base for building the future, and a main pivotal point in industrial development. It is currently considered part and parcel of the manufacturing and consumption industry; it



includes a wide range of daily used products. The petrochemicals industry has contributed in the past four decades to the renaissance and development of all sides of life in most industrialized countries that have been using these industries to serve their economic growth.

The lecturer indicated that the 21<sup>st</sup> century is witnessing radical structural changes in the petrochemicals industry, as the world is witnessing a core shift with regards to raw materials, geography, and population aspects. The Middle East emerges as a world production hub due to its low cost natural resources, the shift of the major consumption regions to East Asian countries due to the rapid growth on demand from India and China; the thing that calls for more planning to meet the world's demand for petrochemicals.

The lecturer stressed that integration is very important between the oil and petrochemicals industries, due to the economic benefits. He then gave a glimpse about the ethylene production in the Arab countries and the world.

**The second session was held at noon, chaired by Engineer Emad Nasef Mekki. It included two lectures:**





### Natural Gas Industry:

It is a paper presented by **Engineer Wael Hamed Abdul Mo'ti**, Gas Industries Expert, from the Technical Affairs Department, OAPEC.



The lecturer spoke about the history of natural gas, and then introduced the stages of the natural gas industry starting from gas production and processing, through the recovery of LNGs like ethane, propane, and butane of high heating value to obtain marketed gas with conforming specifications that can be used as fuel in different economic sectors. The lecturer indicated that natural gas production in Arab countries has witnessed a big development since the beginning of the 1980s until 2014. The Arab region is contributing with more than 16% of the world's gas production compared to 3.7% in 1980, making it the fastest growing region with regards to its production at an annual rate of 7.3% during that period. Qatar tops Arab natural gas producing countries, followed by KSA and Algeria. The lecturer then talked about the last stage of the industry; that is gas exporting system, whether liquefied via tankers or as gas through pipelines, or transforming it to liquefied fuel like diesel

and kerosene. He explained that Qatar has built two of the world's largest gas-to-liquid GTL plant to transform gas to liquids; they are Oryx (2006) and Pearl GTL (2011). Qatar alone contributes by about 74% to the world's production capacity in this field.

### Oil and Gas Transfer

The lecture was presented by **Mr Yasin Mohammed Al Sayyad**, Director of the Commercial Department, Arab Maritime Petroleum Transport Company (AMPTC). He presented a paper titled "Clean Product Exports: the changing face of the oil and gas transportation markets". The paper tackled a number of main points including: current developments in the world's petroleum market, the future of the world demand for oil and gas, the USA oil and gas production and consumption, LNG production and consumption developments, developments of oil and gas demand in the Middle East, refining capacities and changes in the world's oil products demand pattern, the big shift from crude oil production to oil products export, and oil tankers market.

The paper reached a number of conclusions including that the oil tankers' market has witnessed positive developments over the past 12 months and will continue to show positive







signs in light of the emergence of a new generation of mega refineries. On another note, the shipbuilding industry of the oil tankers is facing various challenges due to governmental restrictions imposed by many countries.

### Day 3: Tuesday 6 October 2015

The third day included two sessions. The first was held at 9AM, chaired by Mr Abdul Fattah Dandy, Director of the Economic Affairs Department, OAPEC. It consisted of two lectures:

#### Petroleum Projects Funding



**Mr Kamel Bu Khamseen**, Deputy Director, Funding Management Department, APICORP, presented a paper titled “**The Activity of Petroleum Projects Funding**”. In his

paper, he presented current and future prospects of the energy investments in the Middle East. The lecturer indicated that according to APICORP’s point of view, current political developments in a number of Middle Eastern countries and the fall of oil prices have

not affected the projected investments in the region for 2019, which are estimated at about \$755 billion. They are the same investments that have been projected back in 2009. He pointed out that the size of investments has dropped to its lowest rates in the countries witnessing unstable political situation. 7 of the biggest oil and gas producers have claimed more than three quarters of investments.

The researcher then introduced the most important challenges facing energy investments in the Middle East, including the availability of feedstock, like ethane and natural gas, for the petrochemicals industry and the continuous hike of energy consumption and petroleum projects’ costs.

The lecturer clarified that there are necessary and urgent investments need to be made in the coming years to meet the increasing demand for electrical power and petroleum products to maintain current production rates and provide investment opportunities to increase domestic revenues and exports.

He indicated that the continuous drop of petroleum prices on the medium run might have a negative impact on the size of the planned investments as there are many projects that would be unfeasible in light of low or



unstable petroleum prices. It will also weaken the ability of some oil exporting countries to fund their petroleum projects.

### Petroleum Media



**Mr Abdul Karim Ayyed,** Director of the Media and Library Department/ Acting Administrative Affairs Director, OAPEC, presented a paper on the petroleum media. In his

paper, Mr Ayyed pointed out to the fact that the global media industry is going through a rapid technological development, which has a significant impact on various media sectors around the world, especially electronic and social media. The coming stage requires planning to make use of these technologies that help reaching out to a large number of audience with the lowest cost and effort. This is not to forget the traditional media in order to strike a balance between the traditional and new media.

The lecturer also spoke about the professional development of the petroleum media, underscoring that it is important to introduce oil as a strategic good for both consumers and producers while raising collective awareness on oil's importance and its role in the development process. He explained that among the priorities of petroleum media

bodies in the petroleum producing and exporting countries is highlighting the role of oil producing countries in keeping the prices stable while securing supplies, bringing stability back to energy markets, highlighting the importance of oil as a main source of energy in the coming decades, highlighting the role of producing countries in maintain the safety of the environment through using environment friendly technology, stressing the role of oil producing countries in sustainable development- an efficient way to use oil revenues, and the role of sovereign funds of the producing countries in supporting development projects in the developing countries.

The lecturer introduced a variety of topics that enjoy special interest from the part of the petroleum media including the stereotyping of Arab petroleum industry in the Western media, oil prices, and climate change- which is gathering momentum with the advent of COP21 in Paris, France, in December 2015. Moreover, he tackled energy security, while stressing that petroleum media bodies in OAPEC Secretariat General and its member countries were keen on tackling these sensitive issues in a professional and objective way to clarify the stances of Arab countries on these issues.

The lecturer concluded by stressing that OAPEC Secretariat General welcomes all sorts of cooperation in the field of petroleum media with its member countries and Arab





and international organizations specialized in energy, oil and gas.

The second session was held at noon and chaired by Mr Abdul Karim Ayyed, Director of Media and Library Department/ Acting Administrative Affairs Director, OAPEC. It included two lectures:

### The Role of Oil and Natural Gas in Boosting Development in Arab Countries



Mr Abdul Fattah Dandy, Director, Economic Affairs Department, OAPEC, presented a paper titled “The Role of Oil and Natural Gas in Boosting Development in Arab Countries”.

The paper aimed at reviewing the relationship between energy and sustainable development, highlighting the important role of the petroleum sector in the Arab countries by defining the position of these countries on the world energy map, and the importance of petroleum in Arab economies. The paper also tackled the role of oil in boosting Arab development through: consuming oil and gas in various economic sectors, and their role in making financial revenues available to be spent on various economic and social sectors, as well as, funding imports and enhancing Arab cooperation.



Most important conclusions driven from the paper were:

- The close connection between the oil and gas sector and the development process in the Arab countries through: firstly, using them as a source of energy and raw material in the economic sectors and domestic consumption; and, secondly, they make revenues available for boosting economic and social development.
- The increase of demand rates for energy between 2001 and 2014 from 7 million BOE a day in 2001 to 14.3 million BOE a day in 2014, representing an annual growth rate of 5.6%.
- Arab oil products consumption rose at an annual rate of 4.6% from 3.8 million BOE a day in 2001 to 6.8 million BOE a day in 2014. Also, Arab natural gas consumption from 2001 to 2014 has risen by about 4.2 BOE a day, representing an annual growth of 7% reaching 7.2 million BOE a day in 2014.
- Natural gas share of the energy mix in Arab countries has risen from 42.5% in 2001 to 50.5% in 2014. Petroleum products share, however, has dropped from 54.4% to 47.7%.
- Oil revenues have a major role in boosting development in Arab oil producing and exporting countries through their contributions to the economic growth



rates, general budget, trade balance, as well as their great role in boosting human development rates.

- Oil and its revenues have contributed in boosting development in other Arab non-oil countries through Arab development aid presented by the Arab oil countries to other Arab countries that reached \$82.4 billion from 2001 to 2014. The total accumulated sum from 2000 to 2013 hit \$190 billion since the launch of aid back in 1970.
- Oil revenues had a role in boosting money transfers of the workforce in the oil countries to the workforce’s homelands. The total sum of these transfers hit \$347.6 billion from 2000 to 2013, representing an annual rate of \$24.8 billion.

**New and Renewable Energies: Present and Future**

**Dr Majed Karam Mahomoud**, Senior Expert, Head of Projects and Technical Affairs, Regional Center for Renewable Energy and Energy Efficiency (RCREEE), presented a paper titled “Renewable Energy Resources between Technical Reality and Ambitions:

an Introduction to Power Generation from Solar and Wind Energies”. The paper indicated that spreading the use of renewable energies could be one of the most attractive solutions to face climate change, energy security and sustainability, attracting more investments, and developing domestic industries. The lecturer called for using the unexploited renewable resources in Arab countries including wind and solar energies, especially in power generation. He clarified that this would contribute to realizing various economic and environmental



benefits. He also called for issuing a group of legislations and laws to encourage the private sector to indulge in renewable energy projects and attract more investments to this sector.

**Day 4: Wednesday 7 October 2015**

The fourth day included one session. It was chaired by HE Abbas Ali Al Naqi, OAPEC Secretary General. It included two lectures:

**Climate Change Negotiations and Different Blocs**



**Mr Ayman Shasli**, Head of the Arab Negotiation Group at the UNFCCC, from Saudi Arabia, presented a paper titled “United Nations Framework Convention on Climate Change (UNFCCC): Towards

2015 Agreement”

The paper tackled the latest developments and current situation on the eve of COP21 on the UNFCCC to be held in Paris in December 2015. Anticipation is growing on the kind of new agreements on climate change awaiting the outcome of the meeting in Paris, where a new protocol or legally binding and applicable formula post the year 2020 is expected to be announced.

Most important issues in the paper included: the current political scene and political efforts by the developed countries’ leaders and concerned international organizations on climate change, and the expected stances at the upcoming event in Paris. The lecturer also explained the targeted percentages for emission reduction in the USA, China, EU, and India.

The lecturer also spoke about the progress of international climate change negotiations, the UNFCCC, and Kyoto Protocol. He reviewed



the stances of developing and developed countries during the negotiations. The lecturer explained that the period between 2009 and 2015 could be considered an interim period for the UNFCCC, especially with regards to the INDCS contribution of the USA and developing countries.

He clarified that the IPCC is the driving force for the UNFCCCs. The lecturer also gave a description of the general features of the expected Paris 2015 agreement in light of the announced stances by the international organizations and what was agreed during the regular meetings of the parties.

The lecturer concluded his presentation by underscoring the importance of maintaining the UNFCCC basic principles, that is, adaptation, mitigation, funding, technology transfer, and capability building.

### Current and Future Developments in the World's Petroleum Markets



**Dr Ibrahim Al Muhanna**, Advisor to the Saudi Petroleum and Mineral Resources Minister, gave a lecture in which he reviewed the current situation and future trends of the world petroleum market. He also enumerated the most influential factors affecting the world petroleum market and their

implications for the petroleum producing and exporting countries. He mentioned various reasons for the current drop in oil price; they are:

- Current status of the world economy, especially in connection to the economic recession in some major economies like China, the shrinking status of the Indian economy, the unclear picture of the US economy, and the major economic crises like that of Greece.
- Whatever relevant to market fundamentals like supply and demand, especially with the major shifts in the world oil market and the abundant oil supply due to the hike of US shale oil production and oil production in some Middle Eastern countries.
- Political developments in some oil producing and exporting countries in the Middle East.
- Investors' perceptions on the future developments of the petroleum market.

The lecturer indicated that there were a group of interrelated factors that contributed to the growth of the world energy demand and consumption including: the growing population of the world which is expected to hit 8 billion people by 2025, the annual world economy growth by about 3.5% (especially in Asia, Africa, and South America), increasing individual income (middle class) in emerging





economies' countries, which leads to a growing transportation sector as vehicles expected to increase from 1.200 billion in 2015 to 2 billion in 2020. The lecturer stressed that oil will continue to play its role as a main source of the world's energy in the coming decades. He underscored that it is important to have stability and dialogue among oil and gas producing, exporting, and

consuming countries, in addition to the active role of international energy organizations in this regard.

### Closing Ceremony

At the end of the forum, OAPEC Secretary General HE Abbas Ali Al Naqi presented the participants with certificates while wishing them all success in their lives.



ORGANIZATION OF ARAB PETROLEUM EXPORTING COUNTRIES  
OAPEC

# OIL AND ARAB COOPERATION

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

Ali Rajab

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

Eltaher Elzitioni

**Bibliography:** Arabic & English

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# The 142<sup>nd</sup> Meeting of OAPEC Executive Bureau



**OAPEC Executive Bureau held its 142<sup>nd</sup> Meeting at 10 AM on Saturday 10 October 2015 in Kuwait. The meeting was chaired by HE Sheikh Misha'al bin Jabr Al Thani, Qatar's Representative at the Executive Bureau. Qatar heads OAPEC's current round. Their Excellencies the Executive Bureau Members represented their countries at the meeting.**

HE Sheikh Misha'al bin Jabr Al Thani opened the meeting with a speech welcoming their excellencies the Executive Bureau Members while thanking the State of Kuwait for hosting the meeting and for the hospitality. He also thanked His Excellency OAPEC Secretary General and the Secretariat General staff for organizing the meeting and providing all facilities to make it happen. Then, he welcomed Egypt's new representative HE Engineer Jamal Abdul Hamid Hijazy, who was taking part in the Executive Bureau meeting for the first time, wishing him all success.



**H.E. Sheikh Misha'al bin Jabr Al Thani  
QATAR**

OAPEC Secretary General HE Abbas Ali Al Naqi addressed the meeting welcoming His Excellency the Chair and Their Excellencies





**H.E. Abdul Qader La'alam**  
ALGERIA



**H.E. Ali Abdul Jabbar Al Sawad**  
BAHRAIN



**H.E. Eng. Gamal Abdul Hameed Muhammad Hijazi**  
EGYPT



**H.E. Hasan M. Habibib Al Rufaii**  
IRAQ



**H.E. Sheikh Talal Naser Al Sabah**  
KUWAIT



**H.E. Eng. Mohammed K.Zendah**  
LIBYA



**H.E.Eng. Nasser Bin Ibrahim Al Fawzan**  
KSA



**H.E.Eng. Khaled Matar Al Ullaij**  
SYRIA



**H.E. Dr. Mattar Al Neyadi**  
UAE

the Executive Bureau Members and wishing them a pleasant stay in Kuwait. HE Al Naqi also congratulated the representatives on the occasion of Eid Al Adha. HE Mr Al Naqi extended thanks to the State of Kuwait for hosting the meeting wishing the conveners success in achieving OAPEC goals to serve the interests of its member countries.

OAPEC Secretary General then welcomed HE Engineer Hijazy, Deputy

Chairman, Egyptian Natural Gas Holding Company (EGAS) for planning and projects at the Ministry of Petroleum and Mineral Resources/ Egypt's Representative to the Executive Bureau, who was taking part for the first time in these meetings. HE Al Naqi wished him all success while thanking his predecessor HE Engineer Amr Abdel Halim for his efforts and significant role in the Executive Bureau's work wishing him



good health, happiness, and success in his life.

HE Al Naqi pointed out that the Executive Bureau's meeting was allocated for considering OAPEC's provisional budget (Secretariat General and Judiciary Tribunal) for the year 2016; and for discussing the clause on the newly proposed system for

OAPEC Award for scientific research which was submitted by the Secretariat General to the Executive Bureau for consideration, discussion, and taking any necessary measures.

The meeting then moved on to discuss the points on the meeting agenda and took necessary actions respectively.





# The 15<sup>th</sup> Meeting of Experts on Natural Gas Investment Cooperation Potentials in OAPEC Member Countries



**In line with OAPEC Secretariat General’s action plan for the year 2015, the 15<sup>th</sup> Meeting of Experts on Natural Gas Investment Cooperation Potentials in OAPEC Member Countries took place on 12 and 13 October 2015 at OAPEC Secretariat General Headquarters. 23 experts from OAPEC member countries, as well as, a delegation of 4 from the Secretariat General took part in the event.**

OAPEC Secretary General HE Abbas Ali Al Naqi opened the meeting with a speech welcoming the participants and wishing them a pleasant stay in Kuwait. He expressed the Secretariat General’s appreciation for the sincere efforts of the member countries on creating a suitable environment for Arab cooperation in the field of gas, and providing relevant data and information. HE Al Naqi also clarified the Secretariat General’s keenness on following up the industry’s Arab and international developments.

HE Al Naqi talked about some important indicators in the world’s natural gas industry during 2014, as the world demand witnessed a drop while natural gas production witnessed a hike by 1.6%, which is lower than the average growth rates in the past decade. The world’s



natural gas trade (both via pipelines and LNG) witnessed a drop of about 3.4%.

The Secretary General drew the attention to the increasing domestic demand for gas in some Arab gas exporting countries, which led to a drop of about 8 billion cubic metres in their exports in 2014 compared to 2013. Arab natural gas exports represent about one fifth of the total world trade.





HE Al Naqi concluded his speech by wishing the participants success in achieving the meeting goals and in their discussions over the natural gas industry developments in the member countries.

After endorsing the meeting agenda, Director of the Technical Affairs Department Dr Samir Al Qara'ish and a group of experts reviewed the Secretariat General's activities since the last meeting like: the developments of the gas industry both on Arab and international levels while incorporating them in the monthly bulletin, the Secretary General's Annual Report, and the statistical report. Also, most important gas industry developments in the member countries and the region were highlighted including the big natural gas explorations in the Middle East, which proved the existence of more than 75 trillion cubic feet, and their future implications for the region and the world.

The Secretariat General and participants gave presentations on the development of the gas industry in their respective countries. Then, the participants made remarks and exchanged views on the papers presented during the meeting.

The papers presented at the meeting discussed some member countries' interest in increasing their natural gas resources, how to use them through adopting strategic plans, and

continuing to execute developmental projects. The papers also discussed the proposed LNG receiving terminals, and importing gas via pipelines in light of the future projections expecting demand for natural gas to exceed domestic production levels in some Arab countries. Some papers tackled the latest technology in well drilling and completion on the purpose of improving productivity. Other papers highlighted projects on developing and expanding the existing natural gas facilities in the Arab countries. The papers concluded that it was noticed that some member countries leaned towards injecting more investments in the natural gas sector as they did with the oil sector. This is due to relying on gas as a fuel for power generation which is increasing in some Arab countries, in addition to the importance of gas as a feedstock for petrochemicals and other downstream industries. The participants also stressed the importance of bilateral or multilateral cooperation among member countries to achieve mutual interests.

At the end of the meeting, the participants hailed the Secretariat General's efforts in holding such meetings and its concern on creating the right atmosphere for exchanging information and expertise among natural gas experts.



## 2<sup>nd</sup> Kuwait Oil & Gas Conference and Exhibition (KOGS 2015) Introduced Latest Petroleum Industry Technology

Under the auspices and presence of His Highness Sheikh Jaber Al Mubarak Al Hamad Al Sabah, Prime Minister of the State of Kuwait, the 2nd Kuwait Oil & Gas Conference and Exhibition (KOGS 2015) was inaugurated on Sunday 11 October 20015, under the slogan “Energy Resources Prospects: Innovation, Technology, and Investment Opportunities”. The conference was co-organised by Society of Petroleum Engineers, Arabian Exhibitions Management, under the patronage of Kuwait Petroleum Corporation and its subsidiaries.

The opening ceremony was attended by senior Kuwaiti officials: His Excellency Sheikh Sabah Al Khaled Al Hamad Al Sabah, First Deputy Prime Minister and Minister of Foreign Affairs; His Excellency Sheikh Mohammed Al Khaled Al Hamad Al-Sabah, Deputy Prime Minister and Minister of Interior; and His Excellency Sheikh Khaled Al Jarrah Al Sabah, Deputy Prime Minister and Minister of Defence; and a group of ruling family members, ministers, governors, and advisors to the Prime Minister’s Diwan and KPC and its subsidiaries. OAPEC Secretary General HE Abbas Ali Al Naqi and OPEC Secretary General HE Abdullah Al Badri took part in the event.

HE Dr Ali Saleh Al Omair, Minister of Oil and Minister of State for National Assembly Affairs/KPC Chairperson, delivered a speech at the opening of the conference in which he stressed the importance of the conference that has become an important platform to show the latest developments, achievements, and technologies in the oil and gas industry; as



well as, enhancing communication between companies and officials working in the oil industry.

The Minister pointed out to the importance of boosting the oil industry strategy, finding new creative ways to increase efficiency through advanced technology, and observing security, safety, and environment protection.

He clarified that KPC seeks to implement a long-run strategy through investing in gathering centres and developing heavy oil. HE Al Omair pointed out to a number of initiatives in this field to support the Kuwaiti economy and develop the role of the private sector.

On his part, Mr Nizar Al Adsani, CEO, Kuwait Petroleum Corporation, stressed that the KPC is determined to use all available resources to make the year 2020 a year of achievements for all oil projects that started back in 2010 in order to reach the production of 4 million barrels of crude oil per day.

He added “we believe that national workforce is the real wealth that can translate the corporation’s strategy and transform it into reality to secure its leading position”. He pointed out to the nonstop attention to qualify the national workforce to lead the oil sector.





# OISA Honours OAPEC Secretary General



The Organization of the Islamic Ship-owners' Association (OISA) held their annual general assembly in Dubai, UAE, on 21 October 2015. During the meeting, an honouring ceremony was held for OAPEC Secretary General HE Abbas Ali Al Naqi, and a number of presidents and officials of the Arab joint action organizations, in addition to figures from the marine transportation sector. HE Al Naqi expressed his sincere thanks for this kind initiative hoping for more cooperation between the two organizations.







## 1. Oil Market

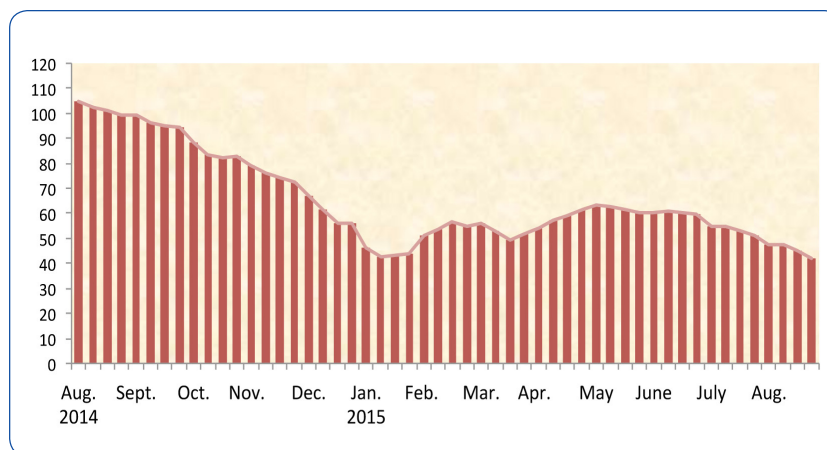
### 1. Prices

#### 1-1 Crude Oil Prices

Weekly average price of OPEC basket decreased during the first week of August 2015, recording \$47.7/bbl, and continued to decline thereafter, to reach its lowest level of \$41.8/bbl during the fourth week, as shown in figure 1:

On monthly basis, OPEC Reference Basket in August 2015, averaged \$45.5/bbl, representing a decrease of \$8.7/bbl or 16.1% comparing with previous month, and a decrease of \$55.3/bbl or 54.9% from the same month of previous year. Enduring oversupply and the slowdown in the Chinese economy, were major stimulus for the decrease in oil prices during the month of July 2015, to reach near-January lows.

**Figure - 1** Weekly Average Spot Price of the OPEC Basket of Crudes 2014 - 2015 (\$/bbl)



### Key Indicators

- 📌 In August 2015, **OPEC Reference Basket** decreased by 16.1% or \$8.7/bbl from the previous month level to stand at \$45.5/bbl.
- 📌 **World Oil Demand** in August 2015, decreased by 0.5% or 0.5 million b/d from the previous month level to reach 95.5 million b/d.
- 📌 **World oil supplies** in August 2015, increased by 0.6% or 0.6 million b/d from the previous month level to reach 98.5 million b/d.
- 📌 **US tight oil production** in August 2015, decreased by 1.4% to reach 5.4 million b/d. whereas **US oil rig count** increased by 9 rig from the previous month level to stand at 588 rig.
- 📌 **US crude oil imports** in July 2015, increased by 7.3% from the previous month level to reach 7.5 million b/d, whereas **US product imports** decreased by 4.6% to reach about 2.1 million b/d.
- 📌 **OECD commercial inventories** in July 2015 increased by 18 million barrels from the previous month level to reach 2923 million barrels, and **Strategic inventories** in OECD-34, South Africa and China increased by 3 million barrels from the previous month level to reach 1858 million barrels.
- 📌 **The average spot price of natural gas** at the Henry Hub in August 2015 decreased by \$0.25/million BTU from previous month level to reach \$2.63/million BTU.
- 📌 **The Price of Japanese LNG imports** increased in July 2015 by \$0.3/m BTU to reach \$8.9/m BTU, whereas **the Price of Korean LNG imports** decreased by \$0.3/m BTU to reach \$8.8/m BTU, and **the Price of Chinese LNG imports** decreased by \$2/m BTU to reach \$7.5/m BTU.
- 📌 **Arab LNG exports to Japan, Korea and China** were about 3.754 million tons in July 2015 (a share of 33.7% 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 :

**Table 1** Change in Price of the OPEC Basket of Crudes, 2014-2015 (\$/bbl)

	Aug. 2014	Sept.	Oct.	Nov.	Dec.	Jan. 2015	Feb.	Mar.	Apr.	May	June	July	Aug.
OPEC Basket Price	100.8	96.0	85.1	75.6	59.5	44.4	54.1	52.5	57.3	62.2	60.2	54.2	45.5
Change From previous Month	-4.9	-4.8	-10.9	-9.5	-16.1	-15.1	9.7	-1.6	4.8	4.9	-2.0	-6.0	-8.7
Change from same month of previous Year	-6.8	-12.7	-21.6	-29.4	-48.2	-60.3	-51.3	-51.7	-47.0	-43.3	-47.7	-51.4	-55.3

\* 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)

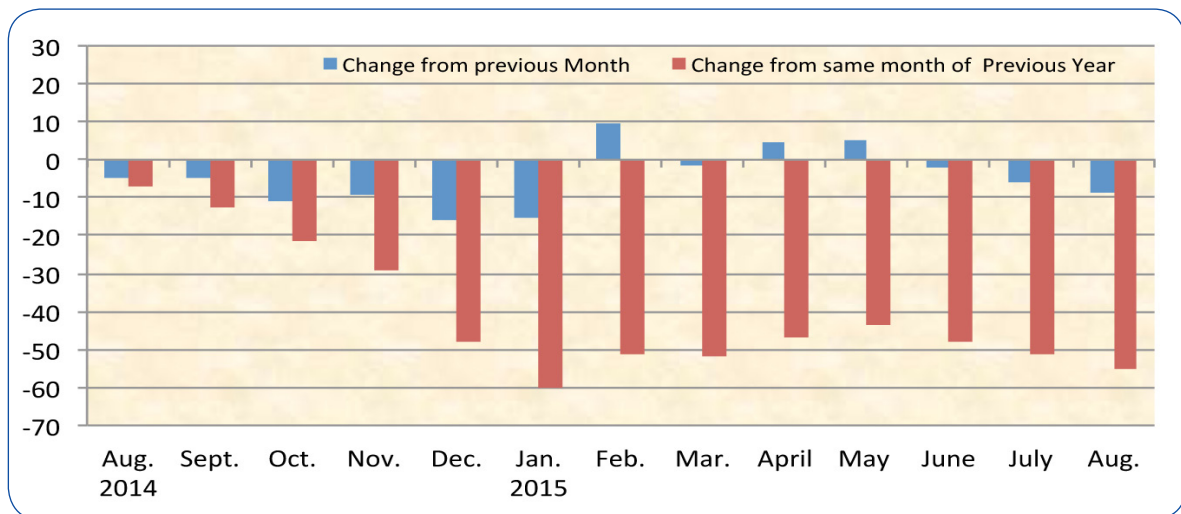


Table (3) in the annex show spot prices for OPEC basket and other crudes for the period 2013-2015.

## 1-2 Spot Prices of Petroleum Products

### - US Gulf

In July 2015, the spot prices of premium gasoline decreased by 5% or \$5.2/bbl comparing with their previous month levels to reach \$99.1/bbl, spot prices of gas oil decreased by 10.6% or \$7.7/bbl to reach \$64.8/bbl, and spot prices of fuel oil decreased by 14.8% or \$7.8/bbl to reach \$45/bbl.



**- Rotterdam**

The spot prices of premium gasoline decreased in July 2015, by 3.4% or \$3.2/bbl comparing with previous month levels to reach \$90.5/bbl, spot prices of gas oil decreased by 10.2% or \$7.8/bbl to reach \$68.6/bbl, and spot prices of fuel oil decreased by 11.3% or \$5.7/bbl to reach \$44.6/bbl.

**- Mediterranean**

The spot prices of premium gasoline decreased in July 2015, by 2.7% or \$2.3/bbl comparing with previous month levels to reach \$83.9/bbl, spot prices of gas oil decreased by 10.1% or \$7.9/bbl to reach \$70.3/bbl, and spot prices of fuel oil decreased by 12.1% or \$6.3/bbl to reach \$45.6 bbl.

**- Singapore**

The spot prices of premium gasoline decreased in July 2015, by 9.5% or \$8/bbl comparing with previous month levels to reach \$76/bbl, spot prices of gas oil decreased by 11.7% or \$9/bbl to reach \$67.7/bbl, and spot prices of fuel oil decreased by 14.7% or \$8.4/bbl to reach \$48.7/bbl.

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

**Figure - 3 Monthly Average Spot Prices of Premium Gasoline, 2014-2015 (\$/bbl)**

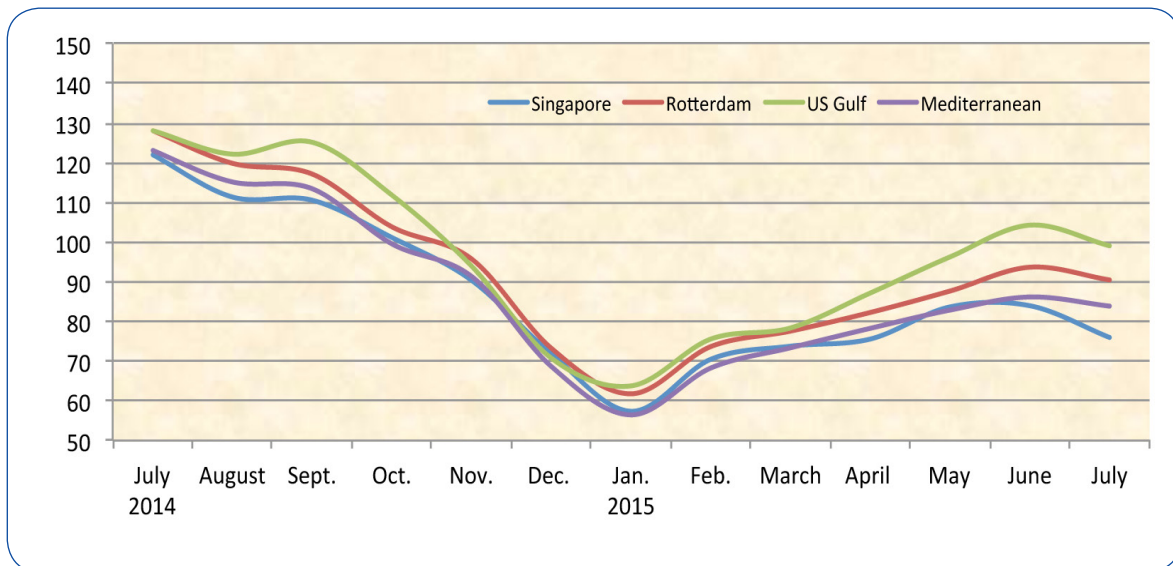


Table (4) in the annex shows the average monthly spot prices of petroleum products, 2013-2015.



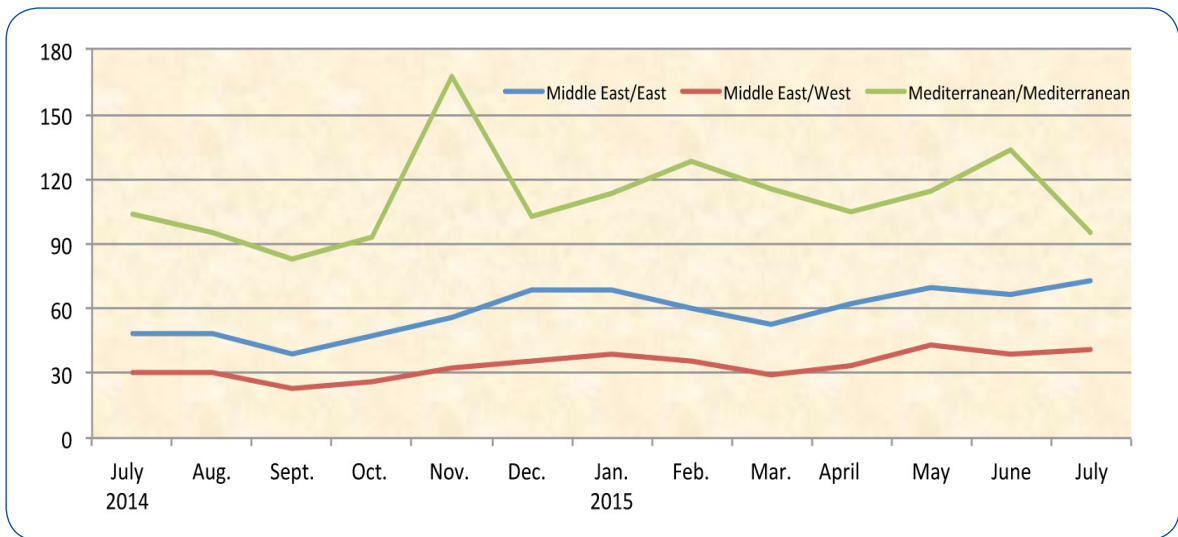


### 1-3 Spot Tanker Crude Freight Rates

In July 2015, Freight rates for crude oil for tanker size (230-280 thousand deadweight tons (dwt)), leaving Middle Eastern ports to the East, increased by 6 points or 9% comparing with previous month to reach 73 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, increased by 2 points or 5.1% comparing with previous month to reach 41 points on the World Scale (WS), whereas freight rates for inter - Mediterranean for small to medium sized tankers (80-85 thousand deadweight tons (dwt)), decreased by 39 points or 29.1% comparing with previous month to reach 95 points on the World Scale (WS).

Figure (4) shows the freight rates for crude oil to all three destinations from July 2014 to July 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 July 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 24 points, or 17% comparing with



previous month to reach 165 points on WS, freight rates for Petroleum Products across Mediterranean [for tanker size 30-35 thousand deadweight tons (dwt)], increased by 13 points, or 6.8% to reach 203 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 13 points, or 6.5% to reach 213 points on WS.

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

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

(World Scale)

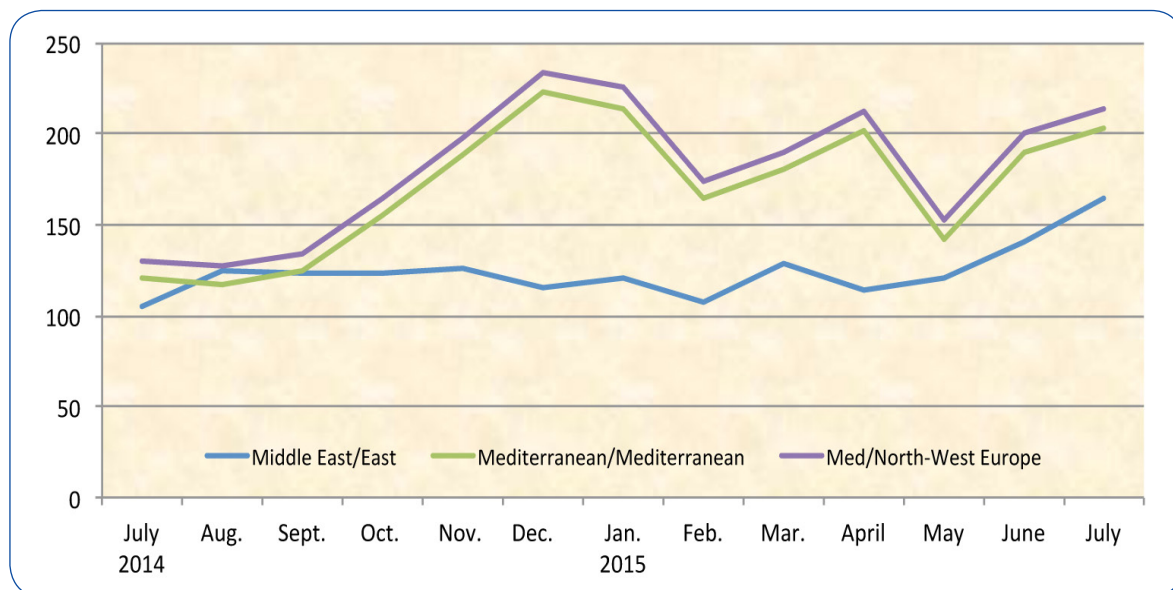


Table (5) and (6) in the annex show crude and products Tankers Freight Rates, 2013-2015.

## 2. Supply and Demand

Preliminary estimates in August 2015 show a decrease in world oil demand by 0.5% or 0.5 million b/d, comparing with the previous month to reach 95.5 million b/d, representing an increase of 2.1 million b/d from their last year level.

Demand in OECD countries decreased by 1.3% or 0.6 million b/d comparing with their previous month level to reach 46.2 million b/d, representing an increase of 0.7 million b/d from their last year level. Whereas demand in Non-OECD countries increased by 0.2% or 0.1 million b/d comparing with their previous month level to reach 49.3 million b/d, representing an increase of 1.4 million b/d from their last year level.





On the supply side, preliminary estimates show that world oil supplies for August 2015 increased by 0.6% or 0.6 million b/d comparing with the previous month level to reach 98.5 million b/d, a level that is 4.1 million b/d higher than last year.

In August 2015, OPEC crude oil and NGLs/condensates total supplies increased by 1.6% or 0.6 million b/d comparing with the previous month level to reach 39 million b/d, a level that is 1.8 million b/d higher than last year. Whereas Preliminary estimates show that Non-OPEC supplies remained stable at the same previous month level of 59.5 million b/d, a level that is 2.3 million b/d higher than last year.

Preliminary estimates of the supply and demand for August 2015 reveal a surplus of 3 million b/d, compared to a surplus of 1.9 million b/d in July 2015 and a surplus of 1 million b/d in August 2014, as shown in [table \(2\)](#) and [figure \(6\)](#):

**Table 2** World Supply and Demand (Million b/d)

	August 2015	July 2015	Change from July 2015	August 2014	Change from August 2014
<i>OECD Demand</i>	46.2	46.8	-0.6	45.5	0.7
<i>Rest of the World</i>	49.3	49.2	0.1	47.9	1.4
<i>World Demand</i>	<b>95.5</b>	<b>96.0</b>	<b>-0.5</b>	<b>93.4</b>	<b>2.1</b>
<i>OPEC Supply:</i>	<u>39.0</u>	<u>38.4</u>	<u>0.6</u>	<u>37.2</u>	<u>1.8</u>
<i>Crude Oil</i>	32.2	31.7	0.5	30.5	1.7
<i>NGL's &amp; Cond.</i>	6.8	6.7	0.1	6.7	0.1
<i>Non-Opec Supply</i>	57.2	57.2	0.0	54.9	2.3
<i>Processing Gain</i>	2.3	2.3	0.0	2.3	0.0
<i>World Supply</i>	<b>98.5</b>	<b>97.9</b>	<b>0.6</b>	<b>94.4</b>	<b>4.1</b>
<i>Balance</i>	<b>3.0</b>	<b>1.9</b>		<b>1.0</b>	

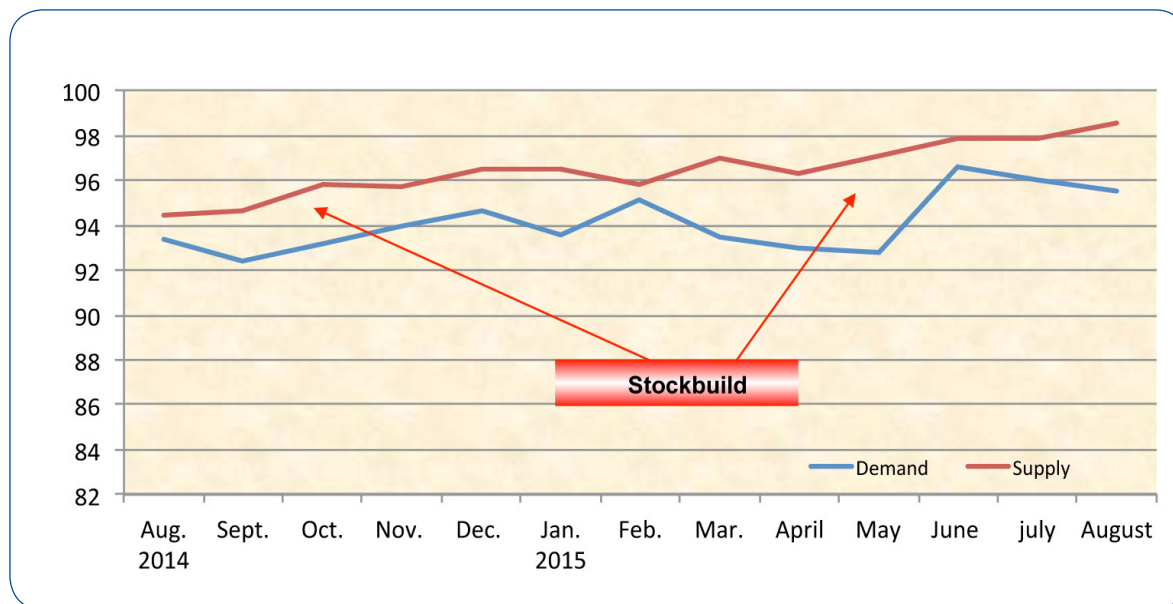
Source: Energy Intelligence Briefing September 4, 2015.

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



**Figure - 6 World Supply and Demand**

(Million b/d)



### US tight oil production

In August 2015, US tight oil production decreased by 77 thousand b/d or 1.4% comparing with the previous month level to reach 5.366 million b/d, representing an increase of 472 thousand b/d from their last year level. Whereas, the US oil rig count increased by 9 rig comparing with the previous month level to reach 588 rig, a level that is 688 rig lower than last year, as shown in table (3) and figure (7):

**Table 3 US\* tight oil production**

(Million b/d)

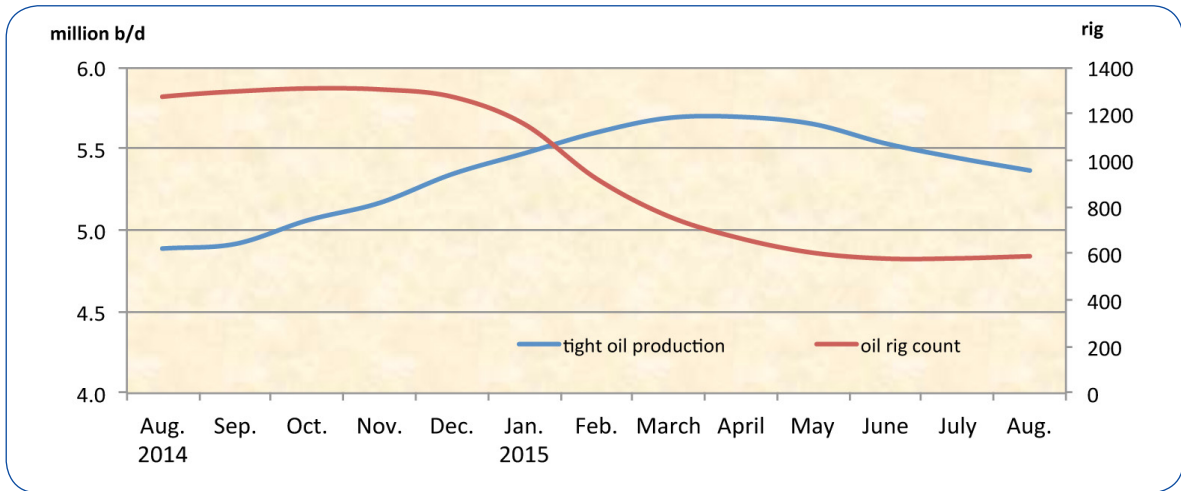
	August 2015	July 2015	Change from July 2015	August 2014	Change from August 2014
<b>tight oil production</b>	<b>5.366</b>	<b>5.443</b>	<b>-0.077</b>	<b>4.894</b>	<b>0.472</b>
<b>Oil rig count (rig)</b>	<b>588</b>	<b>579</b>	<b>9</b>	<b>1276</b>	<b>-688</b>

Source: EIA, Drilling Productivity Report for key tight oil and shale gas regions, September 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 July 2015, US crude oil imports increased by 513 thousand b/d or 7.3% comparing with the previous month level to reach 7.5 million b/d, whereas US oil products imports decreased by 103 thousand b/d or 4.6% to reach about 2.1 million b/d.

On the export side, US crude oil exports increased by 66 thousand b/d or 13% comparing with the previous month level to reach about 572 thousand b/d, and US products exports increased by 230 thousand b/d or 6.5% to reach 3.8 million b/d. As a result, US net oil imports in July 2015 were 114 thousand b/d or nearly 2.2% higher than the previous month, averaging 5.3 million b/d.

Canada remained the main supplier of crude oil to the US with 41% of total US crude oil imports during the month, followed by Saudi Arabia with 13% ,then Mexico with 11%. OPEC Member Countries supplied 37% of total US crude oil imports.

#### Japan

In July 2015, Japan’s crude oil imports increased by 500 thousand b/d or 17% comparing with the previous month to reach 3.4 million b/d, and Japan oil product imports also increased by 44 thousand b/d or 8% comparing with the previous month to reach 601 thousand b/d.

On the export side, Japan’s oil products exports decreased in July 2015, by 2 thousand b/d or 0.4% comparing with the previous month, averaging 515 thousand b/d. As a result, Japan’s net oil imports in July 2015 increased by 543 thousand b/d or 18.3% to reach 3.5 million b/d.

Saudi Arabia was the big supplier of crude oil to Japan with 33% of total Japan crude oil imports, followed by UAE with 31% and Russia with 7% of total Japan crude oil imports.





## China

In July 2015, China's crude oil imports increased by 55 thousand b/d or 0.7% to reach 7.3 million b/d, and China's oil products imports increased by 377 thousand b/d or 29% to reach 1.3 million b/d.

On the export side, China's oil products exports increased in July 2015 to reach 79 thousand b/d, the highest level since April 2015, whereas China's oil products exports decreased by 127 thousand b/d or 13.8% to reach 792 thousand b/d. As a result, China's net oil imports reached 7.7 million b/d, representing an increase of 1.5% comparing with the previous month.

Saudi Arabia remained the main supplier of crude oil to China with 14% of total China's crude oil imports during the month, followed by Angola with 13% and Russia with 12% of total China's crude oil imports.

Table (4) shows changes in crude and oil products net imports/(exports) in July 2015 versus the previous month:

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

	Crude Oil			oil Products		
	July 2015	June 2015	Change from June 2015	July 2015	June 2015	Change from June 2015
<b>USA</b>	<b>6.933</b>	<b>6.486</b>	<b>0.447</b>	<b>-1.664</b>	<b>-1.331</b>	<b>-0.333</b>
<b>Japan</b>	<b>3.434</b>	<b>2.936</b>	<b>0.498</b>	<b>0.086</b>	<b>0.041</b>	<b>0.045</b>
<b>China</b>	<b>7.173</b>	<b>7.185</b>	<b>-0.012</b>	<b>0.483</b>	<b>0.356</b>	<b>0.127</b>

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

## 4. Oil Inventories

In July 2015, OECD commercial oil inventories increased by 18 million barrels to reach 2923 million barrels – a level that is 233 million barrels higher than a year ago. It is worth mentioning that during the month, commercial crude inventories in OECD decreased by 10 million barrels to reach 1160 million barrels, whereas commercial oil products inventories increased by 28 million barrels to reach 1763 million barrels.

Commercial oil inventories in Americas increased by 11 million barrels to reach 1549 million barrels, of which 616 million barrels of crude and 933 million barrels of oil products. Commercial oil Inventories in Europe



decreased by 2 million barrels to reach 936 million barrels, of which 340 million barrels of crude and 596 million barrels of oil products. Commercial oil inventories in Pacific increased by 9 million barrels, to reach 438 million barrels, of which 204 million barrels of crude and 234 million barrels of oil products.

In the rest of the world, commercial oil inventories increased by 47 million barrels to reach 2627 million barrels, and the Inventories at sea increased by 23 million barrels to reach 1099 million barrels.

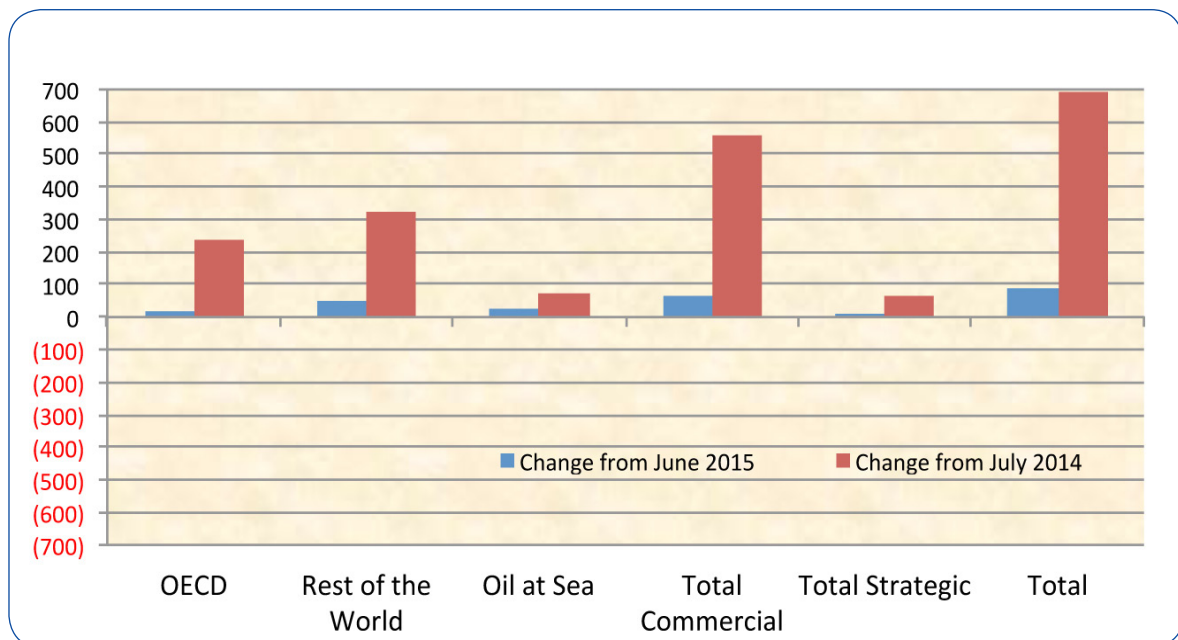
As a result, Total Commercial oil inventories in July 2015 increased by 65 million barrels comparing with the previous month to reach 5550 million barrels – a level that is 556 million barrels higher than a year ago.

Strategic inventories in OECD-34, South Africa and China increased by 3 million barrels comparing with the previous month to reach 1858 million barrels – a level that is 63 million barrels higher than a year ago.

Total world inventories, at the end of July 2015 were at 8507 million barrels, representing an increase of 91 million barrels comparing with the previous month, and an increase of 695 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 July 2015.

**Figure - 8** Changes in Global Inventories at the End of July 2015 (Million bbl)





## 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 August 2015 decreased by \$0.25/million BTU comparing with the previous month to reach \$2.63/ million BTU.

The comparison, shown in [table \(5\)](#), between natural gas prices and the WTI crude reveal differential of \$4.8/ million BTU in favor of WTI crude.

**Table 5** Henry Hub Natural Gas, WTI Crude Average, and Low Sulfur Fuel Oil Spot Prices, 2014-2015 (Million BTU<sup>1</sup>)

	Aug. 2015	Sept.	Oct.	Nov.	Dec.	Jan. 2015	Feb.	Mar.	Apr.	May	June	July	Aug.
Natural Gas <sup>(2)</sup>	3.9	3.9	3.9	4.1	3.2	3.0	2.8	2.8	2.6	2.8	2.8	2.9	2.6
WTI Crude <sup>(3)</sup>	16.6	16.1	14.6	13.1	10.3	8.2	8.8	8.2	9.4	10.2	10.3	8.8	7.4

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 September 2, 2015.

### 2- LNG Markets in North East Asia

The following paragraphs review the developments in LNG Markets in North East Asia, concerning prices and Japanese, Chinese and South Korean imports of LNG and their sources, and LNG Exporters Netbacks.

#### 2.1. LNG Prices

In July 2015, the price of Japanese LNG imports increased by \$0.3/ million BTU comparing with the previous month to reach \$8.9/ million BTU, whereas the price of Korean LNG imports decreased by \$0.3/ million BTU comparing with the previous month to reach \$8.8/ million BTU, and the price of Chinese LNG imports decreased by \$2/million BTU comparing with the previous month to reach \$7.5/ million BTU.

#### 2.2. LNG Imports

Total Japanese, Korean and Chinese LNG imports from various sources, increased by 10% or 1.012 million tons from the previous month level to reach 11.146 million tons.

[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**

	Imports				10.Average Import Price		
	(thousand tons)				(\$/million BTU)		
	Japan	Korea	China	Total	Japan	Korea	China
<b>2013</b>	<b>87490</b>	<b>40175</b>	<b>17997</b>	<b>145662</b>	<b>16.0</b>	<b>14.7</b>	<b>11.1</b>
<b>2014</b>	<b>104669</b>	<b>44622</b>	<b>23673</b>	<b>172964</b>	<b>18.5</b>	<b>18.6</b>	<b>13.5</b>
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
July	6953	2271	1922	11146	8.9	8.8	7.5

Source: World Gas Intelligence various issues.



### 2.3. Sources of LNG imports

Qatar was the big supplier of LNG to Japan, Korea and China with 2.666 million tons or 23.9% of total Japan, Korea and China LNG imports in July 2015, followed by Australia with 22.3% and Malaysia with 16%. Whereas Algeria exported about 62 thousand tons to Korea. The Arab countries LNG exports to Japan, Korea and China totaled 3.754 million tons - a share 33.7% of total Japanese, Korean and Chinese LNG imports during the same month.

#### 2.3. LNG Exporter Netbacks

With respect to the Netbacks, Russia ranked first place with \$6.84 / million BTU at the end of July 2015, followed by Indonesia with \$6.74 /million BTU and Malaysia with \$6.69 /million BTU. And LNG Qatar's netback reached \$6.50/million BTU, and LNG Algeria's netback reached \$6.15/million BTU.

Table (7) shows LNG exporter main countries to Japan, South Korea, and China and their netbacks at the end of July 2015.

**Table 7** LNG Exporter Main Countries To Japan, Korea and China, And Their Netbacks At The End Of July 2015

	Imports (thousand tons)				Netbacks (\$/million BTU)
	Japan	Korea	China	Total	
<b>Total Imports, of which:</b>	<b>6953</b>	<b>2271</b>	<b>1922</b>	<b>11146</b>	
Qatar	1052	1115	499	<b>2666</b>	<b>6.50</b>
Australia	1650	—	838	<b>2488</b>	<b>6.68</b>
Malaysia	1537	173	73	<b>1783</b>	<b>6.69</b>
Indonesia	498	303	290	<b>1091</b>	<b>6.74</b>
Russia	351	127	—	<b>478</b>	<b>6.84</b>
Nigeria	456	—	—	<b>456</b>	<b>6.14</b>
Algeria	—	62	—	<b>62</b>	<b>6.15</b>

\* Total Revenues minus all costs associated, such as importing ,transportation costs, and royalty fees  
Source: World Gas Intelligence various issues.



**Tables Annex**





## OAPEC AWARD FOR SCIENTIFIC RESEARCH FOR THE YEAR 2016

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: .....

Date: / /