

## ENERGY SUBSIDIES REFORMS AT OAPEC MEMBER COUNTRIES IN LIGHT OF CURRENT GLOBAL OIL MARKET DEVELOPMENTS



**DOHA MEETING**

**OIL OUTPUT FREEZE AGREED AT JANUARY 2016 LEVELS**

**3<sup>RD</sup> JOINT MEETING FOR GCC PETROLEUM MEDIA  
EXPERTS' COMMITTEE AND OAPEC**



## The Cover

Economic policies adopted by most OPEC member countries focus on subsidizing basic goods, especially energy. These goods are made available at affordable prices for citizens, institutions, and local companies, within these countries' efforts to realize prosperity for their people by avoiding the negative impact of fuel and petroleum products price fluctuations from one side, and helping local producers to reduce production costs, especially the industrial sector, to benefit the end consumer from the other side.



## Doha Meeting Oil output freeze agreed at January 2016 Levels

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## 5<sup>th</sup> General Conference of the Arab Union of Electricity

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## ORGANIZATION OF ARAB PETROLEUM EXPORTING COUNTRIES (OAPEC)



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

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

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

- **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.





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## 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.

## **Energy Subsidies Reforms at OAPEC Member Countries in light of Current Global Oil Market Developments**

Economic policies adopted by most OAPEC member countries focus on subsidizing basic goods, especially energy. These goods are made available at affordable prices for citizens, institutions, and local companies, within these countries' efforts to realize prosperity for their people by avoiding the negative impact of fuel and petroleum products price fluctuations from one side, and helping local producers to reduce production costs, especially the industrial sector, to benefit the end consumer from the other side.

International Monetary Fund (IMF) estimations indicate that the total size of energy subsidies in the OAPEC member countries has reached about \$278.8 billion in 2011. The total energy subsidies before taxes claimed \$178 billion, while tax subsidies claimed about \$100 billion. Oil products and electricity subsidies have claimed a big share of the total energy subsidies in OAPEC member countries.

An OAPEC study entitled "Energy Subsidies in OAPEC Member Countries and their Implications for their National Economies" indicated that energy subsidy policies achieved positive results in the beginning but as time lapsed, negative signs started to appear, especially in terms of the huge and rapid increase of domestic energy consumption rates, which are the highest worldwide. This can be mainly attributed to the rapid increase in population,



which led to an increasing number of cities, residential areas, roads, power generation plants, and the infrastructure in general. As a result of the current energy subsidy mechanism, high-income individuals benefited from the system more than those with limited-income. An IMF study said that high-income categories, which are less populated, claim more than 40% of the oil products subsidies. Also, energy subsidy policies helped highly energy-consuming industries to grow more than small and medium size industries, which resulted in a decline in energy efficiency and an increase in public budget burdens for member countries.

On another note, low fuel prices contributed to a drop in the revenues of the petroleum and electricity sectors' investment, which hugely caused investment in new and renewable energy sectors to drop, and fuel smuggling from countries that subsidize fuel to their neighbors to rise.

In light of the big developments in the world economy and the global oil market due to the drop of oil prices, which led to the creation of great economic challenges for oil and gas exporting countries, including OAPEC members, most OAPEC member countries announced comprehensive revision of their energy subsidies policies to control domestic energy consumption, ensure that

their energy subsidies policies do not deviate from their planned goals, and handle the increasing burdens on public budgets.

Recently, we noticed the huge interest of global media and social media in reforming energy subsidies policies in OAPEC member countries. Various views, whether against or in favor of these policies, emerged.

OAPEC, while closely observing developments in the Arab and international petroleum industry, appreciates the member countries' efforts in this regard. OAPEC sees that continuing with the current energy subsidy programmes in a general way would not help limited-income categories targeted by these programmes, and might hinder opportunities for an overall sustainable economic growth on one hand, and reaching an ideal use of economic resources on the other hand.

For their subsidies reforms to succeed, OAPEC member countries need to carefully plan and ensure that these reforms would not affect limited-income categories. This can happen by adopting clear strategies and goals through which reform impacts can be assessed to design the necessary measures to reduce any negative impacts of these policies while using surpluses resulting from these reforms in building up new aspects of public spending.





## Doha Meeting

### Oil output freeze agreed at January 2016 Levels

Within OPEC member countries' efforts to secure the stability of the oil market, on 16 February 2016, Qatar hosted a meeting of four parties including Qatar's Energy and Industry Minister, Chairperson of the current session of OPEC HE Dr Mohammed Saleh Al Sada, Saudi Arabia's Petroleum and Mineral Resources Minister HE Eng Ali Al Naimi, Russia's Energy Minister HE Alexander Novak, and Venezuela's Petroleum and Mining Minister HE Eulogio Del Pino. The four countries agreed to freeze output at January 2016 levels, after the approval of OPEC and non-OPEC countries.



**Al Naimi:  
Agreement  
conditioned by  
commitment**

A press conference followed the meeting, which included the four oil ministers participating in the meeting. **HE Ali Naimi** described the Doha meeting as successful while agreement is conditioned by the commitment of most OPEC and non-OPEC oil exporting countries.

On his part, **HE Al Sada** explained that this step should bring stability back to the oil market, especially that current oil price levels have negative implications for most economies worldwide.

The Minister described the meeting as successful as current oil market statuses were reviewed including short and long run supply and demand issues. He negated the possibility of a continued drop of oil prices as there has been a sharp drop in oil investment in parallel to an increase in demand for oil at the same time. He stressed that intensive talks will begin with OPEC and non-OPEC countries in order to maintain market stability and benefit not only OPEC and non-OPEC countries but also the world economy.



## OAPEC Ministers Welcome Positive Outcome of Doha Meeting

Al Sada said he would lead discussions in his capacity as Qatar's Energy and Industry Minister and the Chairperson of the current session of OPEC, with the support of the four ministers in order to talk to OPEC and non-OPEC countries. Once approved, the proposal will be implemented. He said that the market will be under close observation to assess the situation.

Immediate responses followed the declaration of the agreement, as some OAPEC oil and energy ministers welcomed the positive outcome of the Doha meeting while stressing their countries were ready to contribute to reach stability in the oil market.

Algeria's Energy Minister **HE Saleh Khebri** called upon OPEC to adopt the Oil output freezing decision for a maximum of 5 months.



He clarified that his country supported all aiming at balancing the oil market again.

Kuwait's Deputy PM, Finance Minister, and Acting Oil Minister **HE Anas Al Saleh** said Kuwait welcomes the Doha deal and confirms its commitment to what was agreed – to freeze production according to January 2016 levels – provided that the main producers from OPEC and outside OPEC are committed



**Al Sada:**  
**Current oil prices not good for the world economy**



**Al Mazrouei:**  
**Freezing of production contributes to balancing the world's supply and demand**

to it. He said he hoped the agreement would provide a positive atmosphere to support oil prices and balance the oil market to serve the interests of producers, consumers, and the world's economy in general.

United Arab Emirates' Energy Minister **HE Suhail bin Mohammed Al Mazrouei** said his country supports the Doha oil producers' freeze agreement if all OPEC members and Russia follow suit. This would contribute to balancing the world's oil supply and demand.



**Al Saleh:**  
**Kuwait hopes the deal would pave the way for a positive atmosphere in the market**



**Abdul Mahdi:**  
**It is important to focus on narrowing the gap between supply and demand**

On his part, Iraq's Oil Minister **HE Adel Abdul Mahdi** said the agreement of all countries- even for some time- to freeze production will help oil prices go up. He added that the Doha meeting and the recent round of meetings between oil ministers had direct effects on the oil price movement in the world markets. He said the commitment of OPEC and non-OPEC producers would help narrowing the gap between the world's oil supply and demand.



## 5<sup>th</sup> General Conference of the Arab Union of Electricity Balances in Conventional, New, and Renewable Energy Mix in Electrical Systems

Upon a kind invitation from the Secretary General of the Arab Union of Electricity (AUE) Eng Fawzi Kharbat, OAPEC Secretary General HE Abbas Ali Al Naqi took part in the 5th General Conference of the Arab Union of Electricity held in Marrakesh, Morocco, on 27 and 28 January 2016. The event is co-organized by the AUE and ONEE, under the patronage of HM King Mohammed VI of Morocco. The conference was attended by a large number of officials in charge of the electricity sector in Arab and foreign countries. The conference was held under the slogan “Balances in the Conventional, New, and Renewable Energy Mix in Electrical Systems”.

HE Al Naqi participated as a keynote speaker at a session entitled “The Status of Electricity in the Middle East and North Africa”.

Morocco’s Energy and Minerals Minister HE Abdul Qader I’marah



inaugurated the conference with a speech pointing out to the importance of energy cooperation among Arab countries, and the importance of benefiting from potential integration aspects to transform all available cooperation opportunities into real projects benefiting all Arab countries especially in transportation and electrical interconnection sectors.

The Minister considered

electrical interconnection and establishing an Arab market for electricity among the most important concerns of the Arab joint action in the field of electricity. He referred to a study entitled “Comprehensive Arab Interconnection and the Assessment of Using Natural Gas in Exporting Electricity” that has been prepared in line with the Arab Electricity Ministerial Council’s





directives.

The conference aims at providing a platform to discuss creative political options and business strategies to strike a balance between the conventional, new, and renewable energy resources in the energy system. It also aims at adapting governmental, industrial, and financial policies according to best practices.

- Among the main focal points discussed at the conference:
- Trends, visions, and challenges in the energy sector
- Merging renewable energy resources
- The status of electricity in the Middle East and North Africa
- The status of nuclear energy in the energy resources mix
- The role of transportation networks and electrical interconnection
- The conference issued the following recommendations:

Working on developing the legislative frame for the electricity sector in the Arab countries to ensure the presence of an Arab



electricity market that includes all energy resources according to the conditions and potentials of each individual country

Preparing Arab electricity markets to establish energy services companies, and merging renewable energy projects while boosting the role of private sector to contribute to the electricity markets in these countries through creative mechanisms and diversifying energy resources

Encouraging electricity and renewable energy companies to boost their use of funding

programmes offered by banks, and Arab and international funds to develop and execute projects on renewable energy, energy efficiency, upgrading and expanding existing national electricity networks, and interconnections among Arab countries.

The importance of developing and completing Arab electricity interconnection projects and strengthening them as a way to realize an integrated and harmonized Arab electricity market.





## The Petroleum Economist Kuwait Energy Strategy Forum Global hydrocarbons- an industry disrupted?



Upon a kind invitation by the Organizing Committee, OAPEC Secretariat General participated in The Petroleum Economist Kuwait Energy Strategy Forum, held in Kuwait on Tuesday 26 January 2016, co-hosted by Kuwait Petroleum Corporation (KPC) and Petroleum Economist, a global energy magazine.

OAPEC Secretariat General was represented by Mr Abdul Fattah Dandi, Director, Economic Affairs Department, and Mr Abdul Karim Ayed, Director, Media and Library Affairs





Department/Administrative Affairs Supervisor. The event was co-sponsored by Kuwait National Bank (NBK) and EQUATE Petrochemical Co. The forum was under the slogan “Global hydrocarbons—an industry disrupted?”; 300 participants from Arab and foreign countries participated in the event, including Kuwait’s Deputy Prime Minister, Finance Minister, and Acting Oil Minister HE Anas Al Saleh, and Iraq’s Oil Minister HE Adel Abdul Mahdi.

The forum aimed at reviewing current and future trends in the petroleum industry

## “ Reviewing current and future developments in the oil industry ”

in light of current developments in the global energy industry through discussions between participants and keynote speakers who were mainly senior petroleum officials and experts.

HE Anas Al Saleh delivered a speech tackling current

developments in the global oil markets and the implications of the drop of oil prices for the OPEC member countries how to contribute to the stability of the oil market. HE Al Saleh explained that Kuwait’s 2016-2017 budget will be based on the estimation of \$25 per barrel. He added that it is now time for economic reforms while stressing Kuwait’s oil sector determination to focus on its long term strategy for the year 2030.

HE Adil Abdul Al Mahdi also gave a keynote address at the conference. HE Al Mahdi talked about current and future





trends in the world oil market and the role of OPEC member countries in maintaining the oil market's stability. He also tackled the implications of low oil prices for Iraq's economy.

Mr Nizar Al Adsani, Chief Executive of Kuwait Petroleum Corporation opened proceedings, stating that low oil prices are still prevailing the oil market since mid-2014; and they might drop even further for a longer time. This constitutes a major challenge for the oil industry; however, it provides opportunities for structural reform in the industry which will benefit regional economies in the longer term. Mr Al Adsani also introduced Kuwait's oil sector strategy for the year 2030.

The forum's sessions

Al Saleh:  
Determined to  
Continue with our  
2030 strategy

tackled the following:

- A new dynamic of global oil supply and demand?

The panel discussed current developments in the world oil market, current and future role of OPEC member countries, the impact of geopolitical factors on the world's oil supplies, and the role of natural gas and renewables in the world energy mix.

- Diversifying revenues

through petrochemicals

The panel discussed current and future trends of the petrochemicals industry in Kuwait locally and externally in light of the current world oil market developments, especially the drop of oil prices and the impact on postponing or halting of some oil projects including petrochemicals.

- Finance and governance

The panel discussed the future of petroleum projects funding in the Arab region, the impact of the volatility in oil price on petroleum projects, current and future trends in the world financial markets and their implications for petroleum projects, and the role of national oil companies in the 21st century.



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# OAPEC



## 3<sup>rd</sup> Joint Meeting for GCC Petroleum Media Experts' Committee and OAPEC



OAPEC Secretariat General hosted the 3<sup>rd</sup> Joint Meeting for the GCC Petroleum Media Experts' Committee and OAPEC, held in Kuwait on 16 and 17 February 2016. A delegation from the GCC Secretariat General and members of the GCC Petroleum Media Experts' Committee attended the meeting.



OAPEC Secretary General HE Abbas Ali Al Naqi opened the meeting with a speech welcoming the guests and wishing them a pleasant stay in Kuwait. HE Al Naqi appreciated the committee's efforts in boosting and continuing the cooperation between the GCC Council and OAPEC, which started back in 1981. The cooperation between the two organizations has been ongoing since then and will continue on a larger scale in the future. The Secretary General expressed his appreciation and pleasure for the joint committee's fruitful





efforts resulting in boosting the cooperation in the past period.

Following the speech, the meeting kicked off and discussed a number of major topics including:

- Conveners were informed about the GCC Petroleum Cooperation Committee's decision at its 34<sup>th</sup> meeting held on 10 September 2015 regarding the Joint Meeting for GCC Petroleum Media Experts Committee and OAPEC, which included:
  - Approving the MOU between the GCC Secretariat General and (OAPEC).
  - Approving the future action plan between the GCC Petroleum Media Experts' Committee and OAPEC.
- Reviewing aspects of the joint



media cooperation between the two organizations including exchanging publications and studies, linking the organizations' websites, exchanging the publication of petroleum related news and topics, in addition to the active participation in the media events organized by the two sides.

It is worth mentioning that

the first two meetings were held at the GCC headquarters in Riyadh, KSA, in 2014 and 2015. During these meetings, discussions were held on activating the media cooperation between the Organization and the Council according to the GCC petroleum media strategy, which pointed out to the media cooperation between the two sides.

## Oversupply of Oil and Its Impact on Oil Prices

**ABDULFATTAH DANDI**

Director of Economics Department- OAPEC

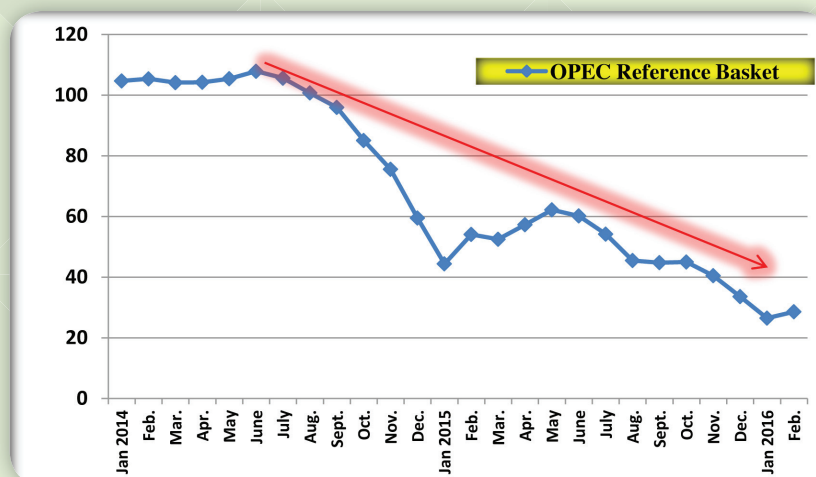
The downward trend of oil prices since mid-2014 is still drawing the attention of many experts in oil industry as the concerns about its impacts on the entire global economy and on the producing and consuming countries and on the future of the oil industry as whole are increasing. It's worth noting that there is a great similarity between the factors which affecting the oil price today and its counterpart, which prevailed during the mid- eighties crisis. There was an increase in Non-OPEC oil supplies , especially from Alaska, Mexico and the North Sea region, concurrent with the slowdown in the growth in oil demand. OPEC countries, at that time, have decided to address the situation by cutting down their production in an effort to restore stability in the oil market and to prevent more collapsing in oil prices. That action led to OPEC losing a significant share in the oil

market, as OPEC's share fell from 42.6% in 1980 to only 27.2% in 1985.

At present, oil prices fell from their highest level of \$107.9/b in July 2014 to their lowest level of \$ 26.5/b in January 2016, representing a decline of \$81.4/b or about 75%. It's noteworthy that this level was not seen since September 2003, when prices then reached a level of \$ 26.3/b.

Many factors have contributed in one way or another in the decline in oil prices, on top of that is the oversupply of crude oil which prevailed throughout the year 2015 and the beginning of 2016. The oil market has recently been characterized by the surplus in oil supply which reached about 2.1 million b/d in the first quarter of 2015, 2.7 million b/d in the second quarter, and 1.7 million b/d in the third and fourth quarters. The surplus in January 2016 has reached 2.5 million b/d.

It is worth mentioning that the surplus in oil supply in 2015 has mainly came as a result of the increase in Non-OPEC oil supply. About 70% of the increase in Non-OPEC oil supplies came from the United States especially from the shale oil, and the remaining (30%) was divided between the Canadian tar sands, deep water oil from Brazil and the increase



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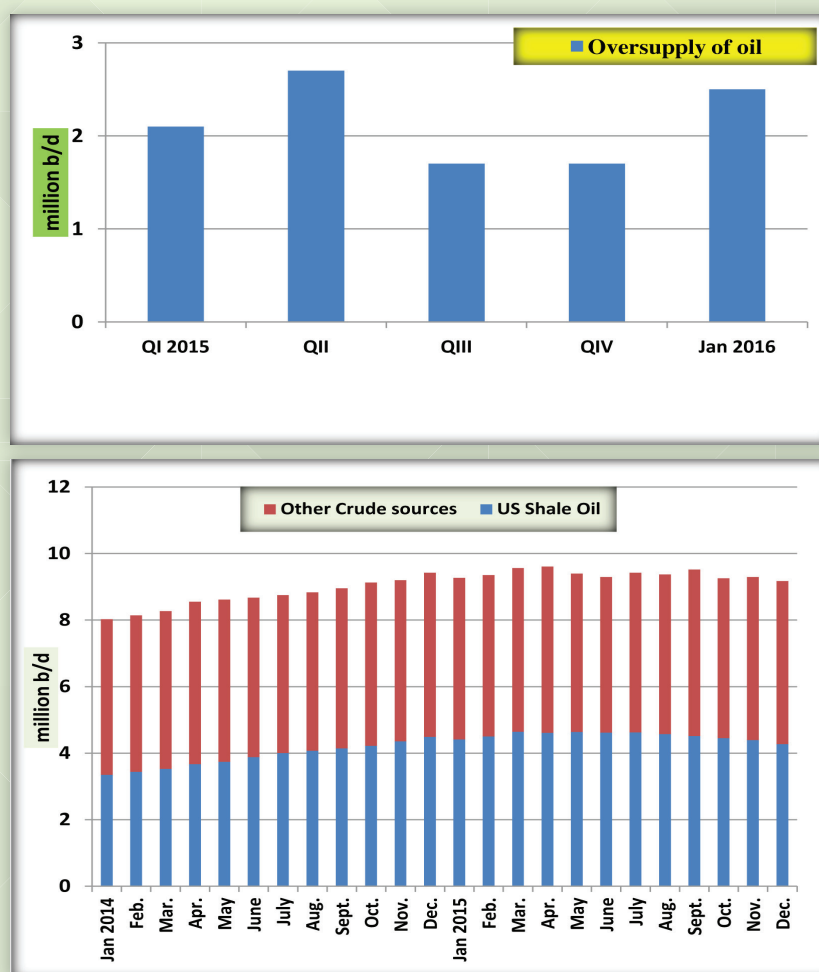


in Russian and Chinese supplies. US oil production has risen from 8 million b/d only in January 2014 to nearly 9.3 million b/d in December 2015, as a result the share of oil shale in US total oil production has risen from 41.7% to 46.4% during the same period.

The abundance of oil supply have contributed significantly in the increase in OECD commercial oil stocks which amounted to 2974 million barrels at the end of 2015 a level that will cover 64 days of forward consumption compared with only 58 days in 2012. At the end of 2015, the US Strategic Petroleum Reserve (SPR) has reached 695 million barrels a level that very close to its maximum capacity of 700 million barrels.

There is no doubt that achieving stability in the oil market and recovery of oil prices to their reasonable and acceptable levels became more necessary than ever. This requires a high-level dialogue and coordination between all relevant parties (producers, consumers and investors).

Joint responsibility and burden-sharing among OPEC and Non-OPEC producers is very essential. It is unreasonable and unfair at the same time to hold OPEC countries,



which account for a share of 40% of total world oil supplies, the whole responsibility for maintaining stability in the oil market where Non-OPEC producers claiming 60% of the global oil supply by injecting additional quantities without considering the oil market consequences.

# The 17<sup>th</sup> Kuwait-Japan Joint Symposium



Upon a kind invitation by Kuwait Institute for Scientific Research (KISR), OAPEC Secretariat General took part in The 17th Kuwait-Japan Joint Symposium, held at KISR headquarters, Ahmadi, Kuwait, on 2 and 3 February 2016, under the slogan “Advancement in Petroleum Industries”. The event was co-organized by KISR, Kuwait National Petroleum Company (KNPC), Japan Petroleum Institute (JIC), and Japan Cooperation Center, Petroleum (JCCP).

Research and Technology Department Manager Ms Suad Al Radwan represented KNPC during the symposium wherein she talked about the significance of the symposium and its role in improving the petroleum industry performance through exchanging views and expertise on the latest developments to enable the industry face challenges. She also introduced the oil refineries’ development projects in Kuwait and their role in enhancing the production of a cleaner fuel to conform to international standards.

The Commercial Attaché at Japan’s Embassy in Kuwait, Mr Hiroshi Etawa spoke on behalf of Japan’s Ambassador to Kuwait HE Takashi Ashiki. In his speech, Mr Etawa pointed out to the importance of cooperation between Japanese and Kuwaiti scientific institutes. He stressed the strong and long ties between

the two countries especially in the field of petroleum industry.

Mr Wataru Ueda, Chairman of Japan Petroleum Institute, and Mr Egy Hirooka, Senior CEO, JCCP, also spoke in the opening session.

At the end of the symposium, PRC Executive Manager at KISR Ms Mina Marafi said that the symposium came under the 8th KISR strategy, hailing the close ties between Kuwait and Japan in the field of scientific and technological research. She talked about the great challenges facing crude oil specifications to meet international criteria like Euro-5.

The symposium comprised four sessions, during which 10 papers were presented on:

- Technological developments in the refining industry to produce high quality petroleum products
- Developments of hydroprocessing and their

role in enabling oil refineries meet criteria on cleaner fuel

- Corrosion, reasons, and implications for refineries’ profitability and equipment safety
- Preemptive measures on corrosion at oil refineries and best solutions to reduce its negative impact
- Latest developments in catalyst operations used in refining and petrochemicals industries.

A field visit to a pilot distillation unit was part of the symposium, where participants were informed in detail about the specifications, benefits, and aspects of using such units.

OAPEC Secretariat General was represented by Dr Samir Al Qara’esh, Director, Technical Affairs Department, and Engineer Nasif Mekki, Senior Refining Expert, Technical Affairs Department.



# Joint Arab Economic Report 2015

## An overview on Economic Developments in the Arab Countries

The Joint Arab Economic Report 2015 was issued recently. It is prepared jointly by 4 Arab organizations: the League of Arab States (LAS), the Arab Fund for Economic and Social Development, the Arab Monetary Fund (AMF), and the Organization of Arab Petroleum Exporting Countries (OAPEC). It provides an analysis of the economic developments in the Arab countries during 2014.

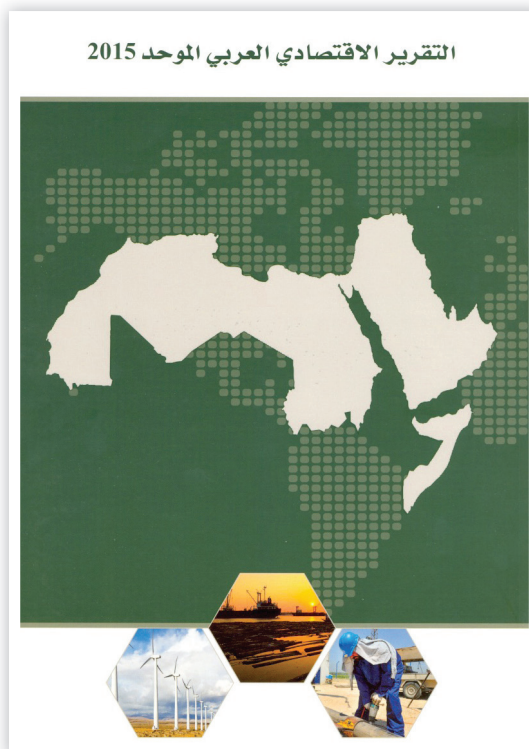
In Chapter 5 on oil and energy developments, prepared by OAPEC Secretariat General, the report states that the oil market has witnessed a relative stability in the first half of 2014, as a reflection of the slight growth of the world economy performance. In the second half of 2014, the oil market witnessed a sudden change when the world oil prices dropped sharply to hit their lowest levels since 2010, as a result of various interrelated factors.

2014 witnessed a slight increase in proven crude oil reserves. Also, proven natural gas reserves have witnessed a slight increase. The total world oil supplies (crude oil and LNG) have significantly risen in 2014 by about 1.1 million b/d to reach 92.5 million b/d. Oil demand went up by only 1 million b/d compared to a growth rate of 1.3 million b/d in 2013 to reach 91.2 million b/d in 2014.

In 2014, the Arab countries have made 12 oil discoveries and 5 gas discoveries. Arab countries' share of proven oil reserves has dropped to 55.2%, while their share of natural gas has remained unchanged at 27.5% since last year. Arab crude oil production has dropped as well to account for 30% of the world's total production. Arab share of marketed gas has dropped slightly to 17% of the world's total production in 2014.

Arab countries energy consumption in 2014 has risen by 4.3% to reach 14.3 million barrels of oil equivalent per day. Oil and natural gas remained the main energy sources for Arab countries, as together they meet more than 98.2% of the total energy needs in these countries throughout the year.

Annual rates of export oils prices in the Arab countries have dropped by various rates in 2014. All these factors have reflected negatively on the total value of Arab countries' oil exports, as primary estimations point out to a drop from \$693.7 billion in 2013 to \$606.8 billion in 2014, representing a drop of 12.5%.



## Improving Performance and Profitability in the Oil Refining Industry

OAPEC Secretariat General recently launched a study entitled “Improving Performance and Profitability in the Oil Refining Industry”. The study tackled challenges facing the oil refining industry, which contribute to reducing its profitability. It also enlisted the best solutions to face these challenges through applying programmes on improving performance to enable the refineries produce high quality products at the lowest costs while maintaining the highest margins of profit.

**The study made a number of conclusions including:**

- Refineries’ performance is affected by a number of factors including the refinery specifications, the state’s economic situation, and the business environment in which the refinery operates.
- Increasing attention to improve production units’ operation circumstances due to their vital role in improving a refinery’s profitability.
- Increasing attention to apply health and safety programmes, and maximize equipment utilization due to their role in improving the safety of the production process and avoiding potential losses as a result of unscheduled emergency failures.
- The importance of boosting integration between the refining and petrochemicals industries due to its role in improving the profitability of both industries.
- Boosting cooperation between oil refining companies and Arab scientific research institutes, as well as, supporting scientific research activities on new technical inventions which contribute to improving the refining performance, especially downstream and hydrotreating processes that enable refineries to produce oil products conforming to domestic and international environmental requirements.
- It is necessity to meet the environmental legislations’ requirements especially on product specifications, and measures to limit pollutants resulting from the refining process whether gas or



liquid, as well as disposing solid waste in a safe way. This is in order to reduce the impacts of these legislations on the refinery profitability.

- In order to ensure the success of profitability improvement programmes, there should be a constant monitoring of some standards relevant to the refinery performance, like appraising production plan implementation, workplace injuries average, energy consumption, and the various operating costs.
- The importance of cooperation between national and international oil companies in executing joint ventures due to its role in boosting expertise exchange, risk sharing, and technology transfer among partners.





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# Latest Advancements in Refining and Petrochemical Industries

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# Petroleum Developments in the World Market and Member Countries\*

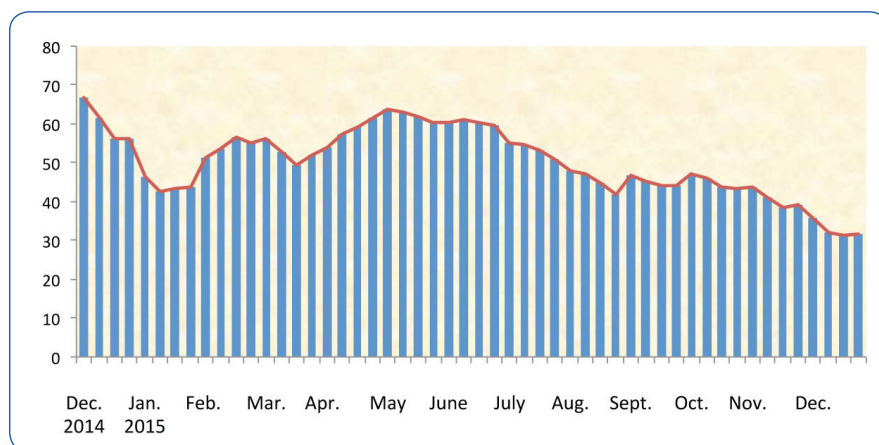
## 1. Oil Market

### 1. Prices

#### 1-1 Crude Oil Prices

Weekly average price of OPEC basket decreased during the first week of December 2015, recording \$35.8/bbl, and continued to decline thereafter, to reach its lowest level of \$31.3/bbl during the third week. During the fourth week, weekly average price raised to \$31.5/bbl, as shown in figure 1:

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



On monthly basis, OPEC Reference Basket in December 2015, averaged \$33.6/bbl, representing a decrease of \$6.9/bbl or 17% comparing with previous month, and a decrease of \$26/bbl or 43.5% 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 December 2015, to their lowest levels since December 2003.

### Key Indicators

- In December 2015, **OPEC Reference Basket decreased** by 17% or \$6.9/bbl from the previous month level to stand at \$33.6/bbl.
- **World Oil Demand** in December 2015, **increased** by 2.3% or 2.2 million b/d from the previous month level to reach 96.9 million b/d.
- **World oil supplies** in December 2015, **increased** by 0.2% or 0.2 million b/d from the previous month level to reach 98.8 million b/d.
- **US tight oil production** in December 2015, **decreased** by 1.9% to reach 5.1 million b/d, and **US oil rig count decreased** by 30 rig from the previous month level to stand at 474 rig.
- **US crude oil imports** in November 2015, **increased** by 2.3% from the previous month level to reach 7.4 million b/d, whereas **US product imports decreased** by 4% to reach about 1.6 million b/d.
- **OECD commercial inventories** in November 2015 **remained stable** at the same previous month level of 2981 million barrels, and **Strategic inventories** in OECD-34, South Africa and China **remained stable** at the same previous month level of 1853 million barrels.
- **The average spot price of natural gas** at the Henry Hub in December 2015 **decreased** by \$0.16/million BTU from previous month level to reach \$1.93/ million BTU.
- **The Price of Japanese LNG imports decreased** in November 2015 by \$0.5/m BTU to reach \$8.9/m BTU, **the Price of Korean LNG imports decreased** by \$0.2/m BTU to reach \$9.5/m BTU, and **the Price of Chinese LNG imports decreased** by \$0.1/m BTU to reach \$7.9/m BTU.
- **Arab LNG exports to Japan, Korea and China** were about 3.800 million tons in November 2015 (a share of 33.9% 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)

	Dec. 2014	Jan. 2015	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
OPEC Basket Price	59.5	44.4	54.1	52.5	57.3	62.2	60.2	54.2	45.5	44.8	45.0	40.5	33.6
Change From previous Month	-16.1	-15.1	9.7	-1.6	4.8	4.9	-2.0	-6.0	-8.7	-0.6	0.2	-4.5	-6.9
Change from same month of previous Year	-48.2	-60.3	-51.3	-51.7	-47.0	-43.3	-47.7	-51.4	-55.3	-5.12	-40.0	-35.1	-25.9

\* 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)

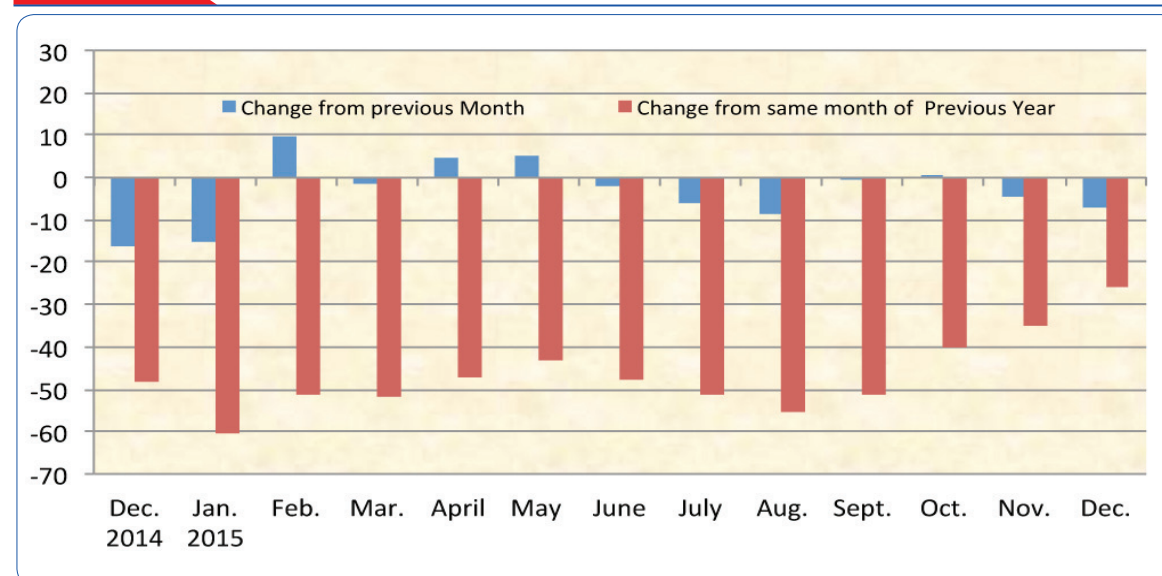


Table (3) in the annex show spot prices for OPEC basket and other crudes for the period 2013-2015.

## 1-2 Spot Prices of Petroleum Products

### - US Gulf

In November 2015, the spot prices of premium gasoline decreased by 3.6% or \$2.3/bbl comparing with their previous month levels to reach \$61/bbl, spot prices of gas oil decreased by 6.7% or \$3.9/bbl to reach \$54.3/bbl, and spot prices of fuel oil decreased by 4.6% or \$1.6/bbl to reach \$33.5/bbl.

### - Rotterdam

The spot prices of premium gasoline decreased in November 2015, by 2.1% or \$1.4/bbl comparing with previous month levels to reach \$65.3/bbl, spot prices of gas oil decreased by 3.5% or \$2.1/bbl to reach \$57.1/bbl, and spot prices of fuel oil decreased by 11% or \$3.7/bbl to reach \$30.2/bbl.

### - Mediterranean

The spot prices of premium gasoline decreased in November 2015, by 0.3% or \$0.2/bbl comparing with previous month levels to reach \$58.8/bbl, spot prices of gas oil decreased by 6.5% or \$4/bbl to reach \$57.3/bbl, and spot prices of fuel oil decreased by 9.4% or \$3.4/bbl to reach \$32.8/bbl.

### - Singapore

The spot prices of premium gasoline decreased in November 2015, by 6.8% or \$4.3/bbl comparing with previous month levels to reach \$59.1/bbl, spot prices of gas oil also decreased by 3.3% or \$2/bbl to reach \$58.7/bbl, and spot prices of fuel oil decreased by 5.7% or \$2.2/bbl to reach \$36.1/bbl.

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

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

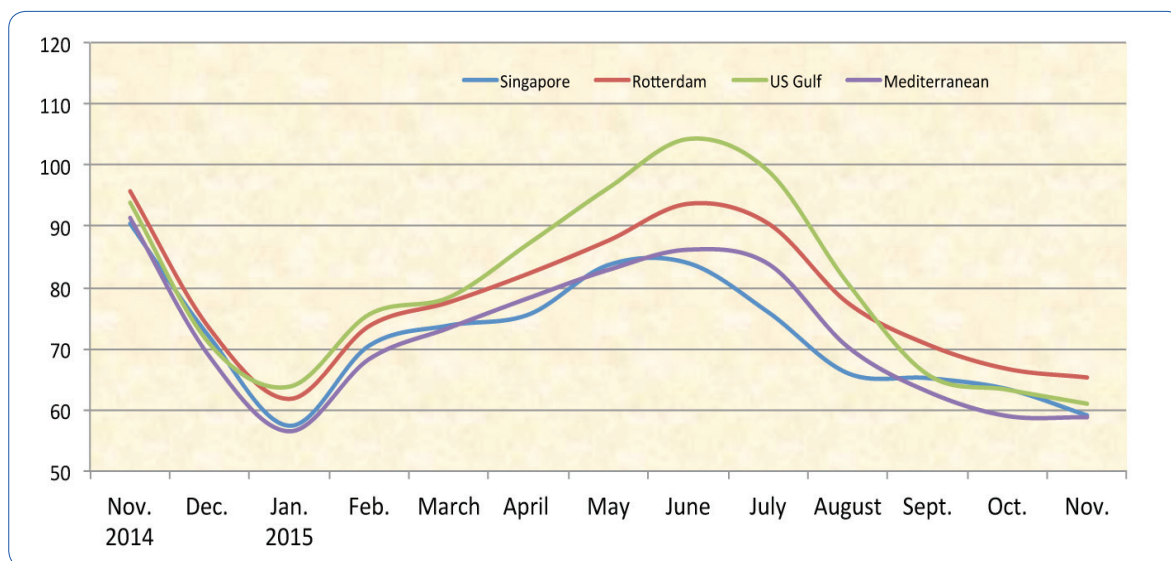


Table (4) in the annex shows the average monthly spot prices of petroleum products, 2013-2015.

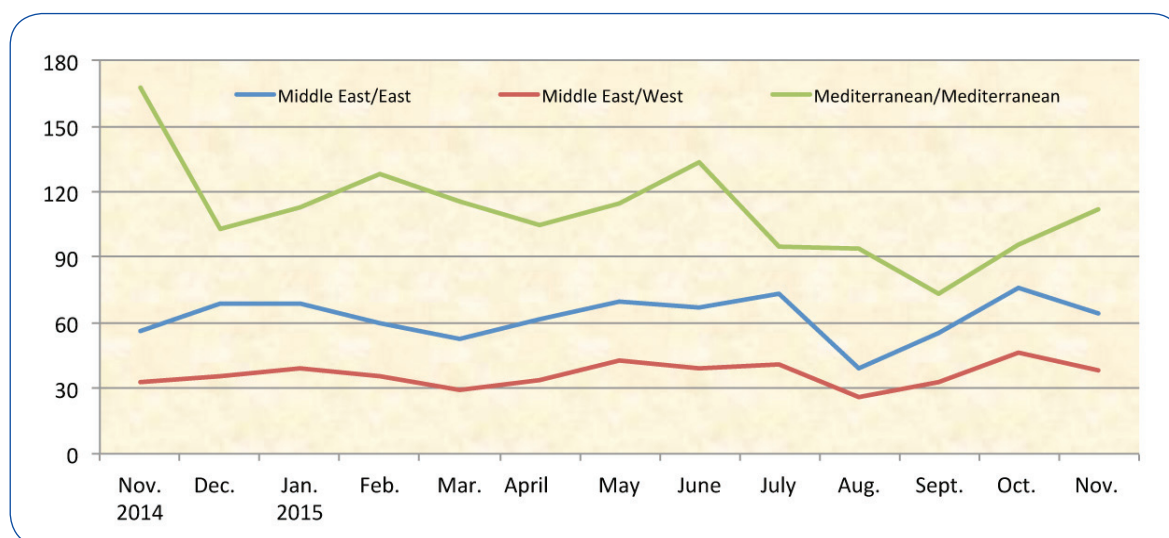


### 1-3 Spot Tanker Crude Freight Rates

In November 2015, Freight rates for crude oil for tanker size (230-280 thousand deadweight tons (dwt)), leaving Middle Eastern ports to the East, decreased by 12 points or 15.8% comparing with previous month to reach 64 points on the World Scale (WS\*), freight rates for crude oil for tanker size (270-285 thousand deadweight tons (dwt)), leaving Middle Eastern ports to the West, decreased by 8 points or 17.4% comparing with previous month to reach 38 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 16 points or 16.7% comparing with previous month to reach 112 points on the World Scale (WS).

Figure (4) shows the freight rates for crude oil to all three destinations from November 2014 to November 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 November 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 3 points, or 3.8% comparing

with previous month to reach 83 points on WS, whereas freight rates for Petroleum Products across Mediterranean [for tanker size 30-35 thousand deadweight tons (dwt)], decreased by 2 points, or 1.6% to reach 125 points on WS, and freight rates for petroleum products [for tanker size 30-35 thousand deadweight tons (dwt)], leaving Mediterranean to North-West Europe decreased by 3 points, or 2.2% to reach 135 points on WS.

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

**Figure - 5** Monthly Spot Product Tanker Freight Rates, 2014 -2015 (World Scale)

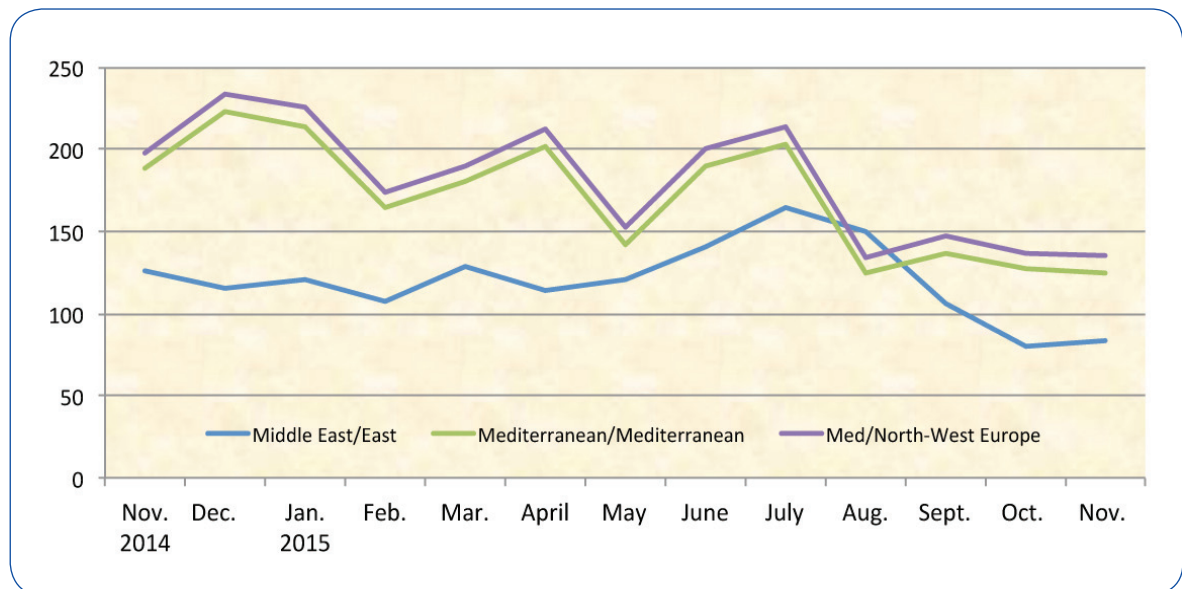


Table (5) and (6) in the annex show crude and products Tankers Freight Rates, 2013-2015.

## 2. Supply and Demand

Preliminary estimates in December 2015 show an **increase** in **world oil demand** by 2.3% or 2.2 million b/d, comparing with the previous month to reach 96.9 million b/d, representing an increase of 0.8 million b/d from their last year level.

Demand in **OECD** countries **increased** by 1.7% or 0.8 million b/d comparing with their previous month level to reach 46.8 million b/d, representing a decrease of 0.2 million b/d from their last year level. And demand in **Non-OECD** countries **increased** by 2.9% or 1.4 million b/d comparing with their previous month level to reach 50 million b/d, representing an increase of 0.9 million b/d from their last year level.



On the supply side, preliminary estimates show that world oil supplies for December 2015 **increased** by 0.2% or 0.2 million b/d comparing with the previous month level to reach 98.8 million b/d, a level that is 2.1 million b/d higher than last year.

In December 2015, **OPEC** crude oil and NGLs/condensates total supplies **decreased** by 0.8% or 0.3 million b/d comparing with the previous month level to reach 39.3 million b/d, a level that is 1.4 million b/d higher than last year. In contrast preliminary estimates show that **Non-OPEC** supplies **increased** by 1% or 0.6 million b/d comparing with the previous month level to reach 59.6 million b/d, a level that is 0.8 million b/d higher than last year.

Preliminary estimates of the supply and demand for December 2015 reveal a surplus of 1.9 million b/d, compared to a surplus of 3.9 million b/d in November 2015 and a surplus of 0.6 million b/d in December 2014, as shown in [table \(2\)](#) and [figure \(6\)](#):

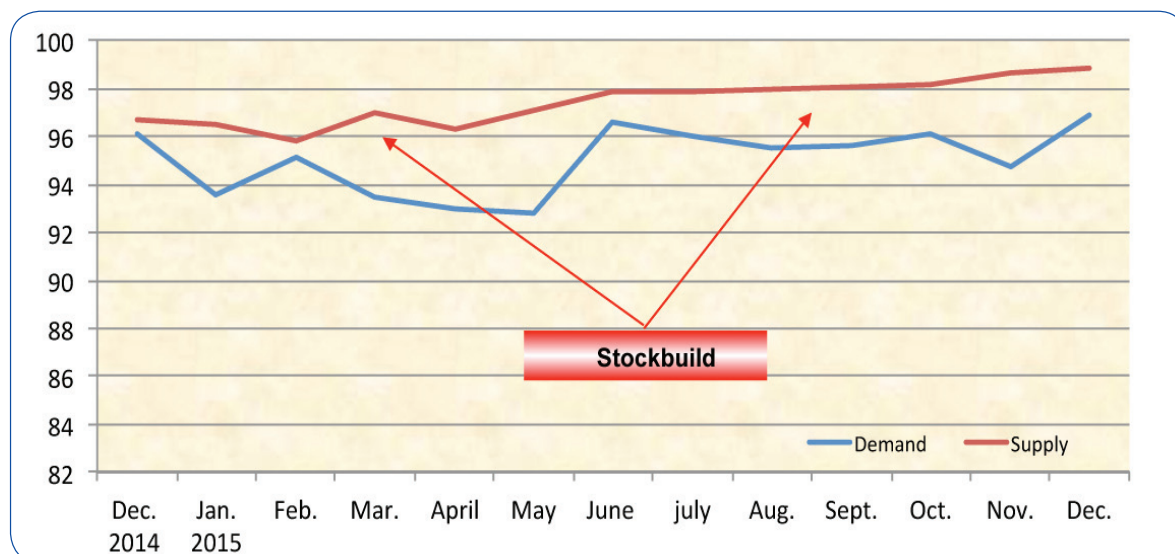
**Table 2**      **World Supply and Demand** (Million b/d)

	<i>December 2015</i>	<i>November 2015</i>	<i>Change from November 2015</i>	<i>December 2014</i>	<i>Change from December 2014</i>
<i>OECD Demand</i>	46.8	46.1	0.8	47.0	-0.2
<i>Rest of the World</i>	50.0	48.7	1.4	49.1	0.9
<i>World Demand</i>	<b>96.9</b>	<b>94.7</b>	<b>2.2</b>	<b>96.1</b>	<b>0.8</b>
<i><b>OPEC Supply:</b></i>	<u>39.3</u>	<u>39.6</u>	<u>-0.3</u>	<u>37.9</u>	<u>1.4</u>
<i>Crude Oil</i>	32.5	32.8	-0.3	31.1	1.4
<i>NGL's &amp; Cond.</i>	6.8	6.8	0.0	6.8	0.0
<i><b>Non-Opec Supply</b></i>	57.2	56.7	0.5	56.4	0.8
<i>Processing Gain</i>	2.4	2.3	0.1	2.4	0.0
<i><b>World Supply</b></i>	<b>98.8</b>	<b>98.6</b>	<b>0.2</b>	<b>96.7</b>	<b>2.1</b>
<i>Balance</i>	<b>1.9</b>	<b>3.9</b>		<b>0.6</b>	

Source: Energy Intelligence Briefing January 21, 2016.

**Figure - 6** **World Supply and Demand**

(Million b/d)



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

### US tight oil production

In December 2015, US tight oil production decreased by 96 thousand b/d or 1.9% comparing with the previous month level to reach 5.052million b/d, representing a decrease of 291 thousand b/d from their last year level. The US oil rig count decreased by 30 rig comparing with the previous month level to reach 474 rig, a level that is 791 rig lower than last year, as shown in table (3) and figure (7):

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

(Million b/d)

	December 2015	November 2015	Change from November 2015	December 2014	Change from December 2014
<b>tight oil production</b>	<b>5.052</b>	<b>5.148</b>	<b>-0.096</b>	<b>5.343</b>	<b>-0.291</b>
<b>Oil rig count (rig)</b>	<b>474</b>	<b>504</b>	<b>-30</b>	<b>1265</b>	<b>-791</b>

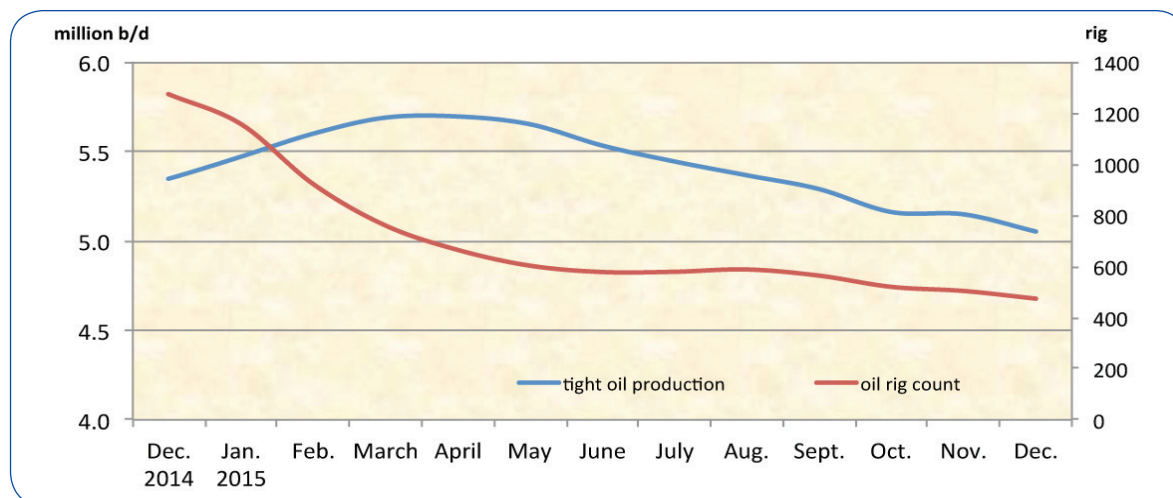
Source: EIA, Drilling Productivity Report for key tight oil and shale gas regions, December 2015.

\* 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 November 2015, US crude oil imports increased by 166 thousand b/d or 2.3% comparing with the previous month level to reach 7.4 million b/d, whereas US oil products imports decreased by 69 thousand b/d or 4% to reach about 1.6 million b/d.

On the export side, US crude oil exports decreased by 40 thousand b/d or 7.9% comparing with the previous month level to reach about 475 thousand b/d, whereas US products exports increased by 59 thousand b/d or 1.5% to reach 3.9 million b/d. As a result, US net oil imports in November 2015 were 79 thousand b/d or nearly 1.7% higher than the previous month, averaging 4.6 million b/d.

Canada remained the main supplier of crude oil to the US with 38% of total US crude oil imports during the month, followed by Saudi Arabia with 13%, then Venezuela with 11%. OPEC Member Countries supplied 38% of total US crude oil imports.

#### Japan

In November 2015, Japan's crude oil imports increased by 138 thousand b/d or 4% comparing with the previous month to reach 3.3 million b/d. And Japan oil product imports increased by 8 thousand b/d or 1.4% comparing with the previous month to reach 578 thousand b/d.

On the export side, Japan's oil products exports decreased in November 2015, by 31 thousand b/d or 5% comparing with the previous month, averaging 562 thousand b/d. As a result, Japan's net oil imports in November 2015 increased by 177 thousand b/d or 6% to reach 3.3 million b/d.

Saudi Arabia was the big supplier of crude oil to Japan with a share of 46% of total Japan crude oil imports, followed by Kuwait with 9% and Russia with 8% of total Japan crude oil imports.

## China

In November 2015, China's crude oil imports increased by 448 thousand b/d or 7% to reach 6.7 million b/d, whereas China's oil products imports decreased by 107 thousand b/d or 10% to reach 978 thousand b/d.

On the export side, China's crude oil exports reached 78 thousand b/d, and China's oil products exports increased by 244 thousand b/d or 27% to reach 1.1 million b/d. As a result, China's net oil imports reached 6.4 million b/d, representing an increase of 0.3% comparing with the previous month.

Russia was the big supplier of crude oil to China with 14% of total China's crude oil imports during the month, followed by Saudi Arabia with 13% and Angola with 9% .

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

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

	Crude Oil			oil Products		
	November 2015	October 2015	Change from October 2015	November 2015	October 2015	Change from October 2015
USA	-0.128	-2.159	-2.287	0.207	6.675	6.882
Japan	0.039	-0.023	0.016	0.138	3.122	3.260
China	-0.351	0.203	-0.148	0.370	6.222	6.592

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

## 4. Oil Inventories

In November 2015, **OECD commercial oil inventories** remained stable at the same previous month level of 2981 million barrels – a level that is 246 million barrels higher than a year ago. It is worth mentioning that during the month, **commercial crude inventories in OECD** decreased by 8 million barrels to reach 1187 million barrels, whereas **commercial oil products inventories** increased by 8 million barrels to reach 1794 million barrels.

**Commercial oil inventories in Americas** increased by 5 million barrels to reach 1581 million barrels, of which 645 million barrels of crude and 936 million barrels of oil products. **Commercial oil Inventories in**



**Europe** decreased by 1 million barrels to reach 965 million barrels, of which 344 million barrels of crude and 621 million barrels of oil products. **Commercial oil inventories in Pacific** decreased by 4 million barrels to reach 435 million barrels, of which 198 million barrels of crude and 237 million barrels of oil products.

**In the rest of the world**, commercial oil inventories increased by 16 million barrels to reach 2771 million barrels, and the **Inventories at sea** increased by 29 million barrels to reach 1120 million barrels.

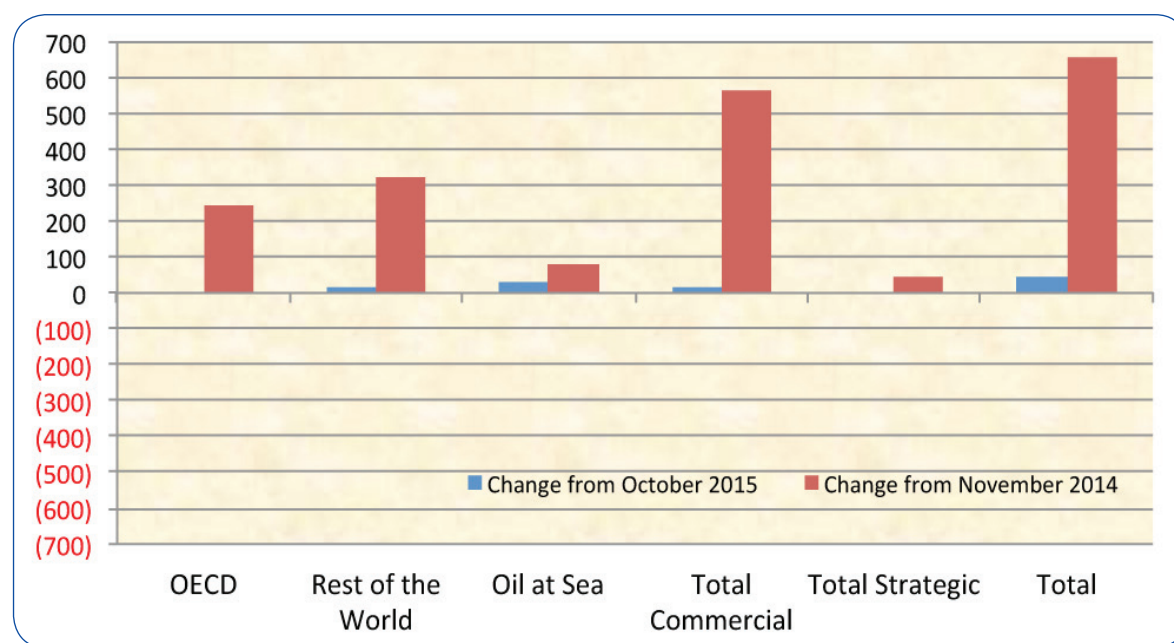
As a result, **Total Commercial oil inventories** in November 2015 increased by 16 million barrels comparing with the previous month to reach 5752 million barrels – a level that is 566 million barrels higher than a year ago.

**Strategic inventories** in OECD-34, South Africa and China remained stable at the same previous month level of 1853 million barrels – a level that is 39 million barrels higher than a year ago.

**Total world inventories**, at the end of November 2015 were at 8726 million barrels, representing an increase of 44 million barrels comparing with the previous month, and an increase of 683 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 November 2015.

**Figure - 8** Changes in Global Inventories at the End of November 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 December 2015 decreased by \$0.16/million BTU comparing with the previous month to reach \$1.93/ million BTU.

The comparison, shown in [table \(5\)](#), between natural gas prices and the WTI crude reveal differential of \$4.5/ 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>)

	<i>Dec. 2014</i>	<i>Jan. 2015</i>	<i>Feb.</i>	<i>Mar.</i>	<i>Apr.</i>	<i>May</i>	<i>June</i>	<i>July</i>	<i>Aug.</i>	<i>Sept.</i>	<i>Oct.</i>	<i>Nov.</i>	<i>Dec.</i>
<i>Natural Gas</i> <sup>(2)</sup>	3.5	3.0	2.9	2.8	2.6	2.9	2.8	2.8	2.8	2.7	2.3	2.1	1.9
<i>WTI Crude</i> <sup>(3)</sup>	10.3	8.2	8.8	8.2	9.4	10.2	10.3	8.8	7.4	7.8	8.0	7.4	6.4

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: <http://www.eia.gov/dnav/ng/hist/rngwhhdM.htm>

### 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 Spot LNG Exporters Netbacks.

#### 2.1. LNG Prices

In November 2015, the price of Japanese LNG imports decreased by \$0.5/million BTU comparing with the previous month to reach \$8.9/ million BTU, the price of Korean LNG imports decreased by \$0.2/million BTU comparing with the previous month to reach \$9.5/ million BTU, and the price of Chinese LNG imports decreased by \$0.1/million BTU comparing with the previous month to reach \$7.9/million BTU.

#### 2.2. LNG Imports

Total Japanese, Korean and Chinese LNG imports from various sources, increased by 6.1% or 644 thousand tons from the previous month level to reach 11.218 million tons.

[Table \(6\)](#) shows the prices and quantities of LNG imported by Japan, South Korea, and China for the period 2014-2015.



**Table6 LNG Prices and Imports: Korea, Japan, and China 2013-2015**

	Imports (thousand tons)				Average Import Price (\$/million BTU)		
	Japan	Korea	China	Total	Japan	Korea	China
<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>
<b>January 2014</b>	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
<b>January 2015</b>	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
August	7062	1998	1348	10408	9.2	9.2	7.1
September	6853	2450	1295	10598	9.6	9.6	7.4
October	6057	2915	1602	10574	9.4	9.7	8.0
November	6694	2706	1818	11218	8.9	9.5	7.9

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 2.700 million tons or 24.1% of total Japan, Korea and China LNG imports in November 2015, followed by Australia with 20.1% and Malaysia with 14.5%. Whereas Algeria exported about 125 thousand tons of LNG to Japan and Korea.

The Arab countries LNG exports to Japan, Korea and China totaled 3.800 million tons - a share 33.9% of total Japanese, Korean and Chinese LNG Imports during the same month.

### 2.4. LNG Exporter Netbacks

With respect to the Netbacks at NE Asia markets, Russia ranked first with \$7.13/million BTU at the end of November 2015, followed by Indonesia with \$7.03/million BTU then Australia and Malaysia with \$6.98/million BTU. And LNG Qatar's netback reached \$6.81/million BTU, and LNG Algeria's netback reached \$6.49/million BTU.

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

**Table7** LNG Exporter Main Countries To Japan, Korea and China, And Their Netbacks At The End Of November 2015

	Imports (thousand tons)				Spot LNG Netbacks at NE Asia Markets (\$/million BTU)
	Japan	Korea	China	Total	
<b>Total Imports, of which:</b>	<b>6694</b>	<b>2706</b>	<b>1818</b>	<b>11218</b>	
Qatar	1026	1057	617	2700	6.81
Australia	1172	344	106	1622	6.98
Malaysia	1661	—	594	2255	6.98
Indonesia	402	422	278	1102	7.03
Russia	589	384	64	1037	7.13
Nigeria	252	70	—	322	6.48
Algeria	62	63	—	125	6.49

\* Export Revenues minus transportation costs, and royalty fees.  
Source: World Gas Intelligence various issues.



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## Tables Annex

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Organization of Arab Petroleum Exporting Countries (OAPEC)



ANNOUNCEMENT

## 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:    /    /