

Under the Patronage of

H.E. Dr. Abdul Hussain bin Ali Mirza

بن علي ميرزا

Minister of Kingdom of Bahrain

The Organization of Arab Petroleum Exporting Countries (OAPPEC)

تروول (أوابك)



## Conference on Options for Energy Conservation in the Oil Refining Industry



HE Abbas Ali Al Naqi

Current changes in energy markets  
imposed new challenges on  
Petroleum exporting countries



# 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.

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# Options for Energy Conservation in the Oil Refining Industry

Refining is being challenged by various difficulties both on Arab and international levels; a matter which will impact the progress of the industry in the future. Most significant challenges include: estimated high costs of development projects that seek to adjust the production structure to meet changing domestic and world demand patterns, high costs of refineries operation and maintenance, uncertainty around future demand rates, and drop in demand rates worldwide. Also, the current unstable oil market and falling oil prices led to different negative impacts on the economies of oil producing and exporting countries.

In response to these challenges, oil producing and exporting countries, including OAPEC members, have been working on creating appropriate conditions for the development of the refining industry. This is happening through a number of projects and programs to develop existing refineries and boost their competitiveness and profitability. Within this framework, those concerned with the refining industry have been seeking to find the best methods to enhance energy conservation and efficiency at refineries since refining is a highly energy-consuming industry; at a rate of about 3%-4% of the crude oil production.

According to a study prepared and published by OAPEC under the title “Options for Energy Conservation in the Oil Refining Industry”, the implementation of energy conservation and management programs at refineries has many benefits including the possibility of improving profitability margins, improving the efficiency of production units operations, preventing releasing pollutants to the environment, boosting energy efficiency, and improving operational performance of refinery production units.

The study indicated that energy conservation and efficiency could be achieved through several measures: on the short run with little expenses; on the medium run with moderate expenses; or on the long run with mega investments. This would help cutting consumption by about 20% to 30% of the total energy consumption at refineries.

The study also showed the measures that can be taken to improve energy efficiency in petroleum refining industry, such as: improving heat integration among process units, repairing steam leaks from pipes and equipment, improving heat insulation, optimizing fuel combustion of burners in the process fired heaters, and recovery of waste heat from the furnace flue gasses to be used for preheating the combustion air.

In this regard, we should mention the good results achieved by a number of member countries in implementing energy conservation programs with different capacities and plans. Hopes are high that these efforts will continue to benefit these countries.

And in line with OAPEC's interest in the development of the refining industry, it organized a conference on the 'Options for Energy Conservation in the Oil Refining Industry Conference', in cooperation with Japan Cooperation Centre Petroleum (JCCP) and National Oil and Gas Authority (NOGA) in Manama, from 3 to 5 February 2015, under the patronage of the Kingdom of Bahrain's Minister of Energy HE Dr Abdul Hussain bin Ali Mirza. The event was attended by industry specialists from OAPEC member countries, in addition to representatives of specialized Arab and international companies and research centers. The conference discussed the various angles relevant to energy conservation in the refining industry. Also, it showcased the Arab and Japanese experiences in the field. **Following is a number of the conference recommendations:**

- Refining is the most energy consuming industry compared to other stages of the oil and gas industry.
- Implementing energy efficiency and conservation management programs contributes to enabling refineries' management to execute energy conservation and efficiency measures at all departments and units with the lowest possible costs.
- Strategic and operational planning is one of the most important success factors for implementing energy efficiency programs.
- The absence of legislations on cutting emissions and weak accountability on specifying operational costs contribute to weakening the sense of responsibility towards taking energy conservation and efficiency measures.
- Scientific findings show that refineries implementing energy management programs achieve significant results in reducing energy consumption and improving profitability.
- Regular maintenance and preemptive measures programs for oil refineries' equipments contribute to significant reduction in energy consumption rates by reducing the number of emergency failures that lead to considerable consumption of energy.
- New techniques and inventions contribute to improving energy efficiency in refining operations.
- The importance of boosting cooperation, coordination and expertise exchange in the field of energy conservation and efficiency among oil refineries, international and regional scientific research centers, and national and international oil companies.

We hope these recommendations will be considered, used, and applied wherever possible in the field to serve the interests of OAPEC member countries.

## HE Secretary General Sent Cables of Congratulations to HE Ali Al Noaimi and HRH Prince Abdul Aziz bin Salman Al Saud



• HE Engineer Ali bin Ibrahim Al Noaimi



• HRH Prince Abdul Aziz bin Salman Al Saud

OAPEC Secretary General HE Abbas Ali Al Naqi sent a cable of congratulations to the Saudi Petroleum and Mineral Resources Minister HE Engineer Ali bin Ibrahim Al Noaimi on the occasion of his reappointment. HE Al Naqi also sent a cable of congratulations to the Petroleum and Mineral Resources Deputy Minister HRH Prince Abdul Aziz bin Salman Al Saud on his new position. The Secretary General wished Their Royal Highnesses success in their positions for the good and prosperity of Saudi Arabia under the leadership of the Custodian of the Two Holy Mosques HM King Salman bin Abdul Aziz Al Saud.

**HE Dr Abdul Hussain bin Ali Mirza**, Kingdom of Bahrain's Minister of Energy, sent a cable to OAPEC Secretary General **HE Abbas Ali Al Naqi** hailing and appreciating OAPEC's and the AEC10 Organizing Committee's good efforts in organizing the 10th Arab Energy Conference in the UAE recently. He lauded the Conference recommendations that would help in boosting joint Arab energy cooperation.





**HE Dr Ali Saleh Al Omair**

## **International Cooperation Important for Oil Market Stability**

Minister of Oil and Minister of State for National Assembly Affairs H.E. Dr. Ali Saleh Al-Omair revealed that Kuwait will carry on with executing its mega oil projects in spite of the current oil market conditions worldwide.

Despite low oil prices, the atmosphere should be alternated into a more optimistic and positive one, devoting efforts to serve our peoples, Al Omair told the opening session of the First Hydrocarbons Strategy Forum that kicked off in Kuwait on 21 January 2015 under the theme “New Forms of Cooperation among GCC Countries”.

He pointed to the huge challenges of the oil industry, as demand is falling in some markets and slowing in emerging ones, amid a growing pace of competition due to oversupply.





Oil prices have been decreasing, after the relative stability over the past years, the Minister said. He stressed the dire need for cooperation on all levels to secure power security and stability on markets.

"We (in Kuwait) believe that expansion in petrochemicals at home and overseas to realize integrity with the refining industry, secures stability of petroleum revenues, and helps make the utmost benefit from the crude in a way that alleviates impact of price fluctuations," the Minister told the session.

He added that the oil sector offers Kuwaiti youth job opportunities and opens the doors for jobs in the Kuwaiti private sector.

## **Iraqi Oil Minister HE Adel Abdul Mahdi**

In his speech addressing the Forum, Iraqi Oil Minister HE Adel Abdul Mahdi underlined the fact that Iraq was among the very first countries in the region to produce oil. He added that Iraq has huge oil resources that are being invested according to development plans laid by Iraqi petroleum experts in collaboration with international energy companies. He hoped Iraq would remain in the list of oil and gas suppliers adding that his country

had plans to develop new and renewable energies.

The Minister said that fossil fuel is dominating the world's energy share with about 80%, while other sources, such as solar and nuclear powers offer less than 20%. He cited statistics to show that fossil fuels will remain the major source of energy for long years to come, referring to rising demand of about 1.5% on oil and gas, and it is expected to hit 110 million barrels daily in 2025. Transport will be the largest consumer of oil especially in China.







**HE Dr Mohammed bin Saleh Al Sada**

## **Significant Qatari Oil and Gas Achievements**

HE Dr Mohammed bin Saleh Al Sada, Qatar's Energy and Industry Minister, said that most forecasts indicated an increase in future global oil demand. Oil producing countries and OPEC members in particular are under the spotlight to secure meeting the increase in demand since member countries possess 80% of the world's proven oil reserves. OPEC has proved a flexible approach in dealing with the market oil demand and an ability to meet the world's needs, which underscore its vital role in keeping the world's oil markets alive.



In a lengthy press interview, HE Al Sada added that Qatar has made significant achievements in the oil and gas industry and has become a major player in the world's oil and gas markets through the diversification of its hydrocarbon products basket, and the establishment of mega oil and LNG projects which are backed by the Qatari political leadership.

The Minister has introduced a number of petrochemical projects that will be set up in Qatar including the shale complex and Al Karaana Complex which will enhance Qatar's position as a world producer and petrochemicals industry pioneer. The two complexes will double Qatar's petrochemicals production from 10 million tons per year up to 22 million tons by 2020. Also, the opening of the second helium plant helped in boosting Qatar's position in the industry to become second after the USA. HE Al Sada talked about Qatar's National Vision 2030, Qatar's National Development Strategy 2011-2016, especially on the sustainable use of water, improvement of air quality, improving gas and energy resources efficiency, increasing environmental awareness, and enhancing knowledge and national commitment. The Minister hoped for further successes in reducing energy consumption.

In a new development in January 2015, Qatar Petroleum and Shell said in a joint statement that they had decided not to proceed with their \$ 6.4 billion Al Karaana petrochemical project in Qatar. Prices quoted by contractors to build the huge complex showed the project was commercially unfeasible, particularly in the current economic climate prevailing in the energy industry. Qatar Petroleum and Shell had agreed on the project in December 2011; they were to build a petrochemical complex in the Ras Laffan Industrial City, with the Qatari company owning 80% and Shell 20%.

On another note, on 10 January 2015, Qatargas delivered the first cargo of Liquefied Natural Gas (LNG) under the long-term Sale and Purchase Agreement (SPA) between Qatar Liquefied Gas Company Limited (3) ("Qatargas 3") and PTT Public Company Ltd. to the Kingdom of Thailand's Map Ta Phut LNG receiving terminal.

This agreement has a special nature as it is the first of its kind for PTT. Also, it is the first SPA to export LNG to South East Asia by Qatargas.

**HE Suhail bin Mohammed Al Mazroui**

## **Current oil prices won't last**



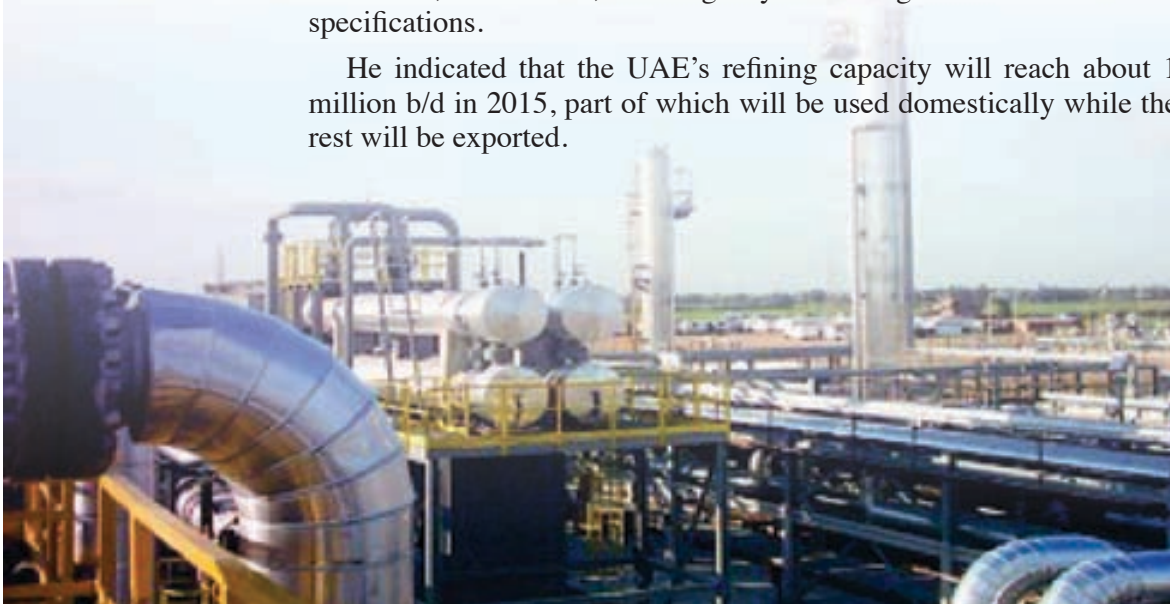
During a session at the “UAE Energy Forum” held in Abu Dhabi on 13 January 2015, HE Engineer Suhail bin Mohammed Al Mazroui, UAE Energy Minister said that current falling oil prices will not affect his country’s economy. He added that the UAE will continue to execute its development projects on oil and gas production capacities according to its 2030 strategy.

The Minister added that oil prices are determined by market factors not producers, explaining that OPEC does not plan to have an emergency meeting prior to the one planned in June 2015. Also, he clarified that there were no plans to cut output now.

He believed that current prices would not sustain, projecting that world economy would grow faster than the current rates. The Minister called for avoiding panic, as there are opportunities for the world economic recovery and projected increase in oil and gas demand. He thought current falling prices provided a good investment opportunity for all parties to review contracts.

Al Mazroui explained that the Energy Ministry’s strategy is based on energy efficiency management including improving distribution, raising awareness on conservation to ensure efficient use by individual customers, as well as, buildings by observing certain construction specifications.

He indicated that the UAE’s refining capacity will reach about 1 million b/d in 2015, part of which will be used domestically while the rest will be exported.





**Dr Matar Hamed Al Niyadi**

## **UAE energy strategy consists of 5 pivotal points**

The UAE Ministry of Energy's Undersecretary, Dr Matar Al Neyadi, the UAE representative at OAPEC Executive Bureau, said on the sidelines of The 10th Gas Arabia Summit in Dubai, United Arab Emirates, on 13 January 2015, that his country is currently working on implementing a 5 pivotal points energy strategy.

The first point includes exploring new gas fields and developing some of the existing ones to meet the increasing local demand. The second point is importing gas from Qatar through the undersea Dolphin pipeline, which would provide 30% of the UAE's gas needs. Dolphin pipeline receives 2.7 billions cf daily with a capacity of 3.5 billions cf of gas. The third point includes using (CCUS) technology, as the Abu Dhabi National Oil Company (ADNOC) and Masdar created a joint venture to develop commercial-scale projects for carbon capture, usage and storage (CCUS). It will build a CO<sub>2</sub> compression facility and a 50 kilometer pipeline, along which CO<sub>2</sub> will be pumped to ADNOC's oilfields. Emirates Steel is a key partner in this project – the CO<sub>2</sub> its plants generate will feed the project when it goes operational in 2016. The project will sequester up to 800,000 tons of CO<sub>2</sub> annually. The fourth point includes installing floating LNG storing platforms, and building the Fujairah and Dubai docks. The last point focuses on energy conservation to face the increasing local energy, electricity and water consumption in the UAE estimated at 6%.





## Al Falih: 5 pillars support the Saudi refining and petrochemicals sector

Saudi Aramco President and CEO Engineer Khalid Al Falih said that the company aims at achieving profitable growth in the refining and petrochemicals sector to be the world's leading company in the field in line with its pioneer status in the crude oil production.

In his opening remarks at the Saudi Aramco Mobil Refinery Limited (SAMREF) launch of the Clean Fuels Production Project, Al Falih enumerated Aramco's projects in the refining sector such as SATORP in Jubail; the integrated Jazan Refinery mega-project; the YASREF Refinery in Yanbu'; and the current expansion in Luberef for base oils.

He noted that the company is currently studying other projects in Yanbu' to increase the refining and petrochemical capacity. These and other Aramco projects around the world will put the company in a leading position in the world's refining sector with economic interests for KSA.

Al Falih spoke about five pillars that underpin this strategy. "The first is to turn Saudi Aramco's refineries into integrated industry parks where the refining process and the chemicals industry integrate



and are given a major competitive edge," he said.

The second pillar is to provide these refineries with record-high refining capacity that enables them to leverage their operations and reach economies of scale.

The third pillar, he said, is to link these industrial parks with close-by downstream industries through the provision of market-ready products and feedstock for important conversion industries that will provide opportunities to maximize added-value to the economy.

The fourth pillar is to make the company's investments in this sector a manifestation of Saudi Aramco's commitment to give back to the community. This would be achieved by considering the needs of the surrounding community for opportunities to establish small- and medium-size enterprises that would become part of the supply chain and the various services required by the industrial parks, leading to direct and indirect job opportunities.

The fifth pillar, said Al-Falih, is to enable these communities to use technology and innovation to deliver the highest-quality products that meet top environmental standards.

### Hashem: heavy crude project is a landmark in the history of KOC

Kuwait Oil Company (KOC) has signed an agreement with Petrofac and Consolidated Contractors Company to execute the Lower Fars heavy oil development program at Al Ratqa field (North Kuwait). When completed, it will produce around 60,000 barrels of oil a day.

KOC CEO Hashem Hashem told KUNA that the implementation of this project stands as a landmark in the history of KOC, as it will enable the company to produce heavy oil in commercial quantities for the first time. He added that developing heavy oil is a strategic objective of the company and that this new venture will increase the company's technical and operational capabilities.

Hashem said that this project serves as the first

phase of KOC's heavy oil development plan and that it will be followed by other stages in order to raise production as part of the KOC 2030 strategy.

He explained that the project includes setting up the main central processing facility, associated infrastructure, as well as a production support complex, consisting of heavy oil transport pipeline. The heavy crude oil will be transported from Lower Fars to South Tank Farm in Ahmadi, where KOC has the option to send it to the proposed Al Zour refinery in the south of Kuwait. He added that 4 tanks of about 300,000 barrels capacity each will be set up. Other facilities including a new staff building will be constructed too.



## Bahrain



Bahrain's Energy Minister **HE Dr Abdulhussain Mirza** has opened recently Banagas's ninth compressor station (CS9).

Built at a cost of \$42.2 million, the new station, which started partial operations back in October 2013, is designed to compress and deliver about 60m standard cubic feet per day (mmscfd) of associated and refinery off-gas. The station is environment-friendly.

With the commissioning of the new station, Banagas will be able to comply with the National Oil and Gas Authority (Noga) directive of 'no flare, no vent' under Bahrain's strategy on improving the country's environmental conditions.



## UAE

The Abu Dhabi National Oil Company, ADNOC, and Total signed on 29 January 2015, the new ADCO Concession Agreement for the ADCO onshore oil fields in the Emirate of Abu Dhabi. By this agreement, Total will receive a 10% participating interest in the new concession and is appointed Asset Leader for the South East and Bu Hasa integrated Asset Groups, with effect from 1 January 2015, while additional companies will be added soon.

Abu Dhabi Company for Onshore Petroleum Operations Limited (ADCO) will continue to operate the integrated asset groups of Bab, Bu Hasa, South East (Sahil, Asab, Shah, Qusahwira, Mender) and Northeast Bab (Al Dabb'iya, Rumaitha, Shanayel). ADCO plans to reach 1.8 million barrels a day production in 2017.



## Egypt



HE Eng Sherif Ismail, Egypt's Minister of Petroleum, signed two new agreements to explore natural gas and oil in the Nile Delta region with the Emirati, Dana Gas Company and the British BP with minimum investments estimated at about \$ 97 million. The Minister of Petroleum stressed that continuing to sign new petroleum agreements underlines the confidence of major companies in the petroleum potential at various Egyptian regions, particularly in the Mediterranean Sea, the Nile Delta and the Western Desert. The Minister underscored his country's keenness on attracting foreign investments in the various petroleum sectors.

Moreover, the minister pointed out that by signing these two new agreements, the petroleum sector has managed to conclude 50 new oil and gas exploration agreements since November 2013 with minimum investments of about \$ 2.8 billion and signature bonuses of about \$ 408.7 million to drill 218 wells.

## Iraq



The Iraqi Government has signed a deal with Royal Dutch Shell (RDSa.L) on 28 January 2015 worth \$11 billion to build Nibras Petrochemicals Complex in the southern oil hub of Basra. Industry Minister HE Nasser Al Esawi signed the deal from the Iraqi side. He told a news conference the Nibras complex, is expected to come online within five to six years, would make his country the largest petrochemical producer in the Middle East. The Nibras complex will be one of the largest foreign investments in Iraq and the most important in the petrochemical sector in the Middle East. He said the complex would produce 1.8 million tonnes of petrochemical products per year.





## Algeria

Algerian Minister of Energy HE Youcef Yousfi said that his country might need to increase oil production and develop a number of oilfields to face current drop of oil prices which caused its revenues and major currencies reserves to shrink. He stressed his country's need to fund its project without international loans.

He added that Algeria will increase the capacity of its renewable energy projects to 25,000 megawatts instead of the 2011 predefined capacity of 12,000 megawatts. The project is due to be completed by 2030. It will help meeting one third of the domestic power demand through renewable energy, especially solar.



HE Youcef Yousfi



On another note, Sonatrach has signed an MoU with US General Electric (GE) on 29 January 2015 on manufacturing equipment used in oil and gas exploration and production, in addition to, providing oil training and services. Sonatrach will own 51% of the company's shares while 49% will go to GE.

## Conference on Options for Energy Conservation in the Oil Refining Industry



In line with its approved plan for 2015, OAPEC Secretariat General organized a conference titled ‘Options for Energy Conservation in the Oil Refining Industry’, in Bahrain from 3 to 5 February 2015 under the kind patronage of Bahrain’s Minister of Energy HE Dr Abdul Hussain bin Ali Mirza, in cooperation with Japan Cooperation Centre Petroleum (JCCP) and National Oil and Gas Authority (NOGA).



HE Dr Abdul Hussain bin Ali Mirza

In his opening speech, HE Dr Mirza welcomed the participants to Bahrain and wished the conference all success. The Minister referred to the growing need for energy conservation during this time of falling oil price, which has made it a necessity for the energy-intensive refining industry.

He said that Bahrain was on the right path in designing environment compliant projects, such as the newly commissioned gas compression station at the Bahrain National Gas Company (Banagas), which ensured a clean harvest from the Bahrain Refinery operations.

The Minister concluded his speech by thanking OAPEC Secretariat General, Japan Cooperation Centre Petroleum (JCCP) and National Oil and Gas Authority (NOGA) for their efforts on organizing and preparing for the conference.

On his part, OAPEC Secretary General HE Abbas Ali Al Naqi said that the conference has come at a time when the oil refining



industry is facing many challenges and difficulties like the fall of crude oil prices worldwide, meeting the requirements of environmental legislations, as well as the harsh competitiveness in the world markets. Those in charge of the industry were driven by all these factors to seek available tools and opportunities to ensure cutting costs and improving the performance and profitability of the production operations. HE Al Naqi mentioned that OAPEC member countries were keen on implementing energy conservation programs in oil refining industry. He explained that the continuously growing world demand for energy and the increasing consumers' needs in the 21st century in different parts of the world require taking all possible measures on energy conservation and efficiency. This happens through adopting active governmental policies and strategies, issuing regulatory legislations on energy management programs for all industrial sectors, encouraging volunteer work programs, supporting private sector initiatives and its participation in advanced technology investment for more future efficiency and productivity. The Secretary General added that member countries are keen on boosting scientific research activities to invent new technologies that develop energy conservation and cutting CO<sub>2</sub> emissions at the petroleum industry installations.

HE Kiyoshi Asako, Ambassador of Japan to Bahrain, delivered a speech at the opening highlighting the conference's significant theme; refining. Mr Eiji Hiroka Special Advisor, JCCP also spoke at the opening session shedding light on the cooperation between OAPEC and the Center.

**The conference addressed several key energy conservation themes, procedures in oil refineries, challenges in the Arab countries, stages of implementation of energy conservation programs, opportunities, and case studies on rationalization of energy consumption in oil refineries.**

The conference delegates were taken in a tour for the Bahrain Petroleum Company (Bapco) and the historic Oil Museum of Bahrain.



HE Abbas Ali Al Naqi



HE Kiyoshi Asako,  
Ambassador of Japan to Bahrain





OAPEC Secretary General presents a gift to H.E. Bahraini Energy Minister



Bahraini Energy Minister presents a gift to the JCCP



## The 18<sup>th</sup> International Conference on Petroleum, Mineral Resources and Development

**HE Abbas Ali Al Naqi**

### Current changes in energy markets imposed new challenges on petroleum exporting countries



Upon a kind invitation by the Director of The Egyptian Petroleum Research Institution, EPRI, Dr Ahmed Mohammed Al Sabbagh, OAPEC Secretary General HE Abbas Ali Al Naqi took part in The 18th International Conference on Petroleum, Mineral Resources and Development in Cairo from 8 to 10 February 2015 under the auspices of Egypt's Petroleum and Mineral Resources Minister HE Engineer Sherif Ismail and Minister for Scientific Research and Technology HE Sherif Hammad.



HE Al Naqi delivered a speech at the opening of the conference in which he indicated that the conference is held at a time when the oil and gas industry is facing major and critical challenges and difficulties including the decline of economic growth rates in many energy-consuming industrial countries, drop in oil and petroleum products demand, significant drop in prices, and increasing

burdens of meeting environmental legislations requirements to stop pollution.

These challenges resulted in negative impacts, which led a number of countries to cancel or postpone most of the vital investment projects that were announced earlier. Also, many existing low- profit installations around the world were shut down due





to their failure. The Secretary General has noted that Arab countries were not far from these developments; however, they have potentials helping them to overcome these challenges.

He mentioned that the changes in the current oil and energy markets scene in general have imposed new challenges and difficulties on both producing and exporting countries, including OAPEC member countries. It is clear that instability, for whatever reasons or causes, leads to the decline or discontinuation of the development process and capacity building, which in turn affect oil production and revenues, and the type of investment in all petroleum industry stages starting from production to refining and petrochemicals. This situation makes it imperative to have a stable atmosphere for working diligently to create a balanced and stable oil market capable of meeting both producers' and consumers' aspirations.

HE Al Naqi explained that member countries pay special attention to enhancing scientific research in order to invent new techniques capable of developing energy efficiency and reducing emissions at petroleum and petrochemical industry installations throughout all its stages from production, refining, and manufacturing to transport and marketing.

The conference discussed a number of papers on oil, gas, new and renewable energies.





## Kuwait International HSE Conference and Exhibition (KIHSE)

**HE Al Naqi**

## OAPEC observes UNFCCC developments closely

Under the auspices of HE Dr Ali Saleh Al Omair, Minister of Oil and Minister of State for National Assembly Affairs, Kuwait Petroleum Company (KPC) has organized Kuwait International HSE Conference and Exhibition (KIHSE) under the slogan “We Can Make Change Happen”, on 16-17 February 2015, with the participation of HSE experts. The conference aims at boosting Kuwait’s commitment to the highest health, safety and environment standards. It also seeks to establish the concept of an environment- friendly society.

HE Dr Ali Saleh Al Omair, Minister of Oil and Minister of State for National Assembly Affairs inaugurated the conference with a speech stressing Kuwait’s keenness on the issues of health, safety, and environment. He explained that Kuwait’s oil sector has set a number of strategic objectives in this regard including training manpower in the oil sector, evaluating and developing existing oil installations, designing the new installations to be more flexible and meet the international standards for reducing emissions.

HE Al Omair added that the Kuwaiti oil sector has taken a number of preemptive measures and workshops to raise awareness among staff to ensure maintaining human





health and protecting the environment, in addition to; avoiding accidents, an aspect where KPC excels.

The Minister said that bio-fuel project is considered one of the mega projects in Kuwait that underscores Kuwait's commitment to producing oil products with high specifications according to international standards on environment protection. HE Al Omair pointed out that KPC continues to invest in the existing installations to improve its environmental footprint.

OAPEC Secretary General HE Abbas AlNaqi took part as a keynote speaker in the conference. In his speech, he showcased OAPEC members' measures to improve their commitment to reduce emissions, protect the environment and minimize workplace accidents in all plants and facilities. HE Al Naqi also talked about the role of OAPEC member countries at the United Nations Framework Convention on Climate Change (UNFCCC) negotiations. He said that while following up the developments of the international UNFCCC negotiations, OAPEC has been stressing the importance of observing the general guidelines of the agreement on top of which fair and common but differentiated responsibilities, and the right to achieve sustainable development according to developing countries' national priorities and development strategies. (Full speech on the next two pages).



• HE Abbas AlNaqi





## OAPEC Secretary General HE Abbas Ali Al Naqi's Speech at KIHSE

**Your Excellency, Dr. Ali Al Omair, Minister of Oil and Minister of State for National Assembly Affairs.**

**Excellencies, Ladies and Gentlemen, Good morning,**

I would like to extend my sincere appreciation to Mr. Nizar Al – Adsani and the organizing committee for giving me this opportunity to participate and speak at this very important event.

Very briefly, to those who may do not know about OAPEC, “The Organization of Arab Petroleum Exporting Countries” OAPEC is a regional inter-governmental organization established in 1968 and located in Kuwait. Currently, OAPEC member countries are (11) including, Algeria, Bahrain, Egypt, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, Syria, UAE and Tunisia.

The main objectives of OAPEC, include: cooperation among member countries in the development of policies and joint ventures in the fields of oil, gas and energy, as well as preparing studies related to all kinds of energy with concentration on oil and gas, and also, organizing specialized conferences, and seminars. OAPEC holds co-ordinating meeting between member countries and different groups, such as GCC, OPEC and the Arab League.

So far OAPEC has established five joint venture projects successfully such as APICORP, ASRY, AMPTC and others.

### **Excellencies, ladies and gentlemen**

Back to the theme of this conference, according to the latest published world oil outlook report, primary energy demand is projected to expand by almost 60% during 2010 – 2040. Fossil fuels which currently account for more than 80% of the world's energy demand will continue to meet most of the world's energy needs and will remain the main source of energy for many decades to

come. It is expected to contribute by 78% by 2040. Oil will remain the energy type with the largest share. Projections also emphasize the continued leading role of the Middle East and North Africa (MENA) region in the international crude oil trade.

### **Excellencies, ladies and gentlemen,**

It should be noted that by focusing on ways to modernize the existing plants and facilities, there is potential to enhance pollution reductions, and maximize the operational excellence across upstream and downstream sectors of the petroleum industry.

For this reason, OAPEC member countries strongly support all approaches and taking all possible measures to improve their commitment to reduce emissions, protect the environment and minimize workplace accidents in all plants and facilities.

Among these measures are:

- **Fostering research and development of energy efficient technologies.**
- **Implementing the most advanced technologies.**
- **Emphasizing international cooperation.**
- **Integrating energy efficiencies with environment protection and other aspects of energy policy.**

In this regard, Saudi Arabia, the largest oil producer, flares less than 3% of the world flared gas. In Kuwait, Kuwait Oil Company, reduced flaring from 17 % of gas produced in 2006 to 1.75 % in 2011. Kuwait National Petroleum Company (KNPC) “ Flare Gas Recovery Unit Project” at Mina Al Ahmadi Refinery, was registered at UN Clean Development Mechanism (CDM) to become the first project by the State of Kuwait.

More Gas Recovery Facilities in Mina Abdullah Refinery are planned to be completed in 2017.



Also, Iraq has undertaken an ambitious plan to capture, treat and process gas that is flared in producing fields, this world's largest flare reduction project expenditures are estimated at \$17.2 billion.

Moreover, some of OAPEC member countries are trying to establish new Carbon Capturing and Storage (CCS) projects. Out of the 75 large-scale integrated CCS projects identified around the world, 17 are in developing countries. There is one operational gas processing project in Algeria, and three projects in the planning stages in the United Arab Emirates, two of which are power generation projects, and one in the iron and steel sector.

#### **Excellencies, ladies and gentlemen,**

Regarding the United Nations Framework Convention on Climate Change (UNFCCC) negotiations, all OAPEC member countries which are part of the convention, played a great role during the negotiations aiming to defend their interests and to reduce emissions in order to keep the environment clean.

OAPEC has played a great role in coordinating meetings among member countries and the Arab Group affiliated from the Arab League, GCC and OPEC mainly before and during the annual Conferences of the Parties (COPs) sessions, in order to coordinate and unify stances between member countries and other concerned parties during the negotiations.

OAPEC attaches great importance to the procedures and practices of the various UN organizations that will guarantee the transparency and the inclusiveness of the process in order to bridge divergences among Parties in defining elements of the post 2020 climate regime.

While following up the developments of the international UNFCCC negotiations, OAPEC has been stressing the importance of observing the general guidelines of the agreement on top of which fair and common but differentiated responsibilities, right to achieve sustainable development according to developing countries' national priorities and development strategies.

We look forward to the forthcoming (COP21) sessions which will be held in Paris, France, within an objective and comprehensive framework that contributes to the protection energy, especially oil and gas in the long run.

We believe there is some difficult issues to be resolved before an agreement can be signed in Paris summit. The most problematic issue is the differentiation between industrialized countries and developing countries, known respectively as Annex I and non-Annex I countries in the UNFCCC of 1992. There is a consensus on the need to retain the principle of "common but differentiated responsibilities and respective capabilities". The second issue is financial support to developing countries. The third issue is loss and damage. Non-Annex I Parties try to include a specific section on loss and damage. The fourth issue is mitigation. Some of the developing countries argue that only Annex I countries should commit to economy-wide targets for their absolute national emissions (tonnes of CO<sub>2</sub>), as in the Kyoto agreement. The fifth issue is the review component of the agreement.

The last issue is the legal form of an agreement which is still unclear. In this regard, we, as developing countries, insist that any new text which will be presented to the forthcoming Paris COP Conference (COP21) should be based on the submissions from the Parties, taking into consideration the Durban Platform for Enhanced Action.

The member countries called for a comprehensive approach addressing all building blocks of pre- 2020 action, following three permanent and parallel tracks, accelerated implementation process, technical expert process and high level agreement.

#### **Excellencies, ladies and gentlemen**

In conclusion, I would like to emphasize that OAPEC is supporting the environmental issues linked to energy and it will continue to support all kinds of international efforts regarding environmental sustainability.

**Thank you for your kind attention,,,**

## OAPEC attended the Launching Ceremony of the “International Human Development Report 2014”



Upon a kind invitation by the Arab Planning Institute (API) Director General HE Dr Bader Othman Malallah, OAPEC Secretariat General took part in the launch ceremony of the “International Human Development Report 2014” entitled “Sustaining Human Progress: Reducing Vulnerabilities and Building Resilience” at API headquarters in Kuwait on 29 January 2015. The launch was held under the esteemed patronage of His Highness Sheikh Jaber Al Mubarak Al Hamad Al Sabah, the Prime Minister of the State of Kuwait, who was represented by HE Yasser Abul, State Minister for Housing Affairs, Minister of Social Affairs and Labor, Acting State Minister for Planning and Development Affairs, and Acting Chair of API Board of Trustees. The ceremony was attended by Kuwaiti government officials and representatives of the diplomatic corps in Kuwait including OAPEC Secretariat General, which was represented by Mr Al Taher Al Zaytouni from the Economics Department and Miss Ala’a Al Omran from the Press and Library Department.

UNDP Kuwait and the Arab Planning Institute (API) jointly hosted the event as part of the UNDP Human Development Report (HDR) series that started issuing since 1990.

In his opening speech, HE Abul said that Arab human development witnessed an improvement according to the current report. The report classified the Arab region under the category “high human development” with regards to income per capita which reached \$15,800 exceeding the world’s average by 15%. GCC countries came under the category



“very high human development” while the majority of Arab countries fell under the categories “medium” and “low”. Multi-dimensional poverty is still a challenge facing some Arab countries under regional and international challenges which hinder comprehensive and sustainable development in general, and human development in particular. The Minister underscored the necessity of the collaboration between the public and private sectors as well as civil societies to set up economic and social development strategies and policies.

HDR, consists of three parts on health, education and income. The report identifies gaps and major discrepancies among Arab countries in the field of human development. The report shows that overall human development rates are increasing but with a slower pace than before with more than 15% of the world’s population still threatened by poverty.

The report indicates that South Asia had the largest poor population of about 800 million people in addition to 270 million people near the poverty line, which equals 71% of the region’s population.



# An Invitation to Contribute to the

## Oil and Arab Cooperation Journal

The “*Oil and Arab Cooperation Journal*” has the pleasure to invite researchers and specialists of the petroleum industry and developmental issues to participate by publishing their research work and scientific reports in accordance with the following requirements:

1. The magazine publishes original scientific research works in the areas of oil and gas, energy, and economic development which adhere to scientific research methodology and globally recognized procedures. Articles must be written in Arabic and should not be previously published.
2. Article should contain 15-40 pages (and more if required), computer typed. Original shall be printed on A4 in Simplified Arabic font, and shall be paginated.
3. An abstract shall be presented in English, briefing the objective, scope, research methodology, main ideas and conclusions. The abstract should be in the vicinity of 2-3 pages, in clear conceivable manner, without referring to the original text.
4. First page of the research shall contain the time, name(s) of researcher(s), employer, address, telephone numbers, and e-mail. Researcher's name should not be mentioned in the research body.
5. Reference to all sources is made by numbers of footnotes, which are published at the end of the research paper. Recognized scientific principles of documentation shall be considered, including:
  - When the source is mentioned for the first time, the following items should be provided: Book title, name of author, name of publishers, place of publication, number of edition, year of publication, page number.
  - For repeated use, book title and page number shall be mentioned.
6. The research shall be provided with a separate list of footnotes. In the event of foreign sources, an additional list shall be added, apart from the Arabic list, in alphabetical order giving book/research titles, as published in bulletins.
7. A copy of the scientific resume shall be attached, if the researchers has cooperation with the magazine for the first time.

8. The research should not be quoted from a university degree thesis, not previously published, and should not have been submitted to any other publication. The researcher shall provide a separate declaration accordingly.
9. All ideas published on the magazine shall express the opinions of their writers, and not necessarily the view of publishers. Order of researches shall be subject to technical consideration.
10. Researches shall be subject to a confidential assessment to determine validity for publication. Researches shall not be returned to their authors, whether accepted or not, as follows:
  - The researchers shall be notified, within a maximum of 3 weeks, of receipt of the material for publication.
  - Accepted research authors shall be notified of the approval of the editing panel of publication and date of publication.
  - Researches to which assessors decide any additions of modifications prior to publication shall be returned to their authors, along with comments, for necessary action.
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  - Each author shall be provided with 5 copies of the volume where their research is published.



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## KOTC Signs Large Repair Agreement with ASRY

### Al Khaled: ASRY among the world's top renowned ship repair companies

Kuwait Oil Tankers Company (KOTC) signed a comprehensive dry-docking agreement with the Arab Shipbuilding & Repair Yard Company (ASRY), an OAPEC joint venture and one of the world's top leading companies in ship and rig repair and maintenance industry. Sheikh Talal Khaled Al Ahmed Al Sabah, KOTC CEO, signed the agreement for Kuwait Oil Tankers Company while Sheikh Duaij Bin Salman Bin Duaij Al Khalifa signed it for ASRY.

Sheikh Talal said in a press statement that the agreement sets forth exclusive maintenance for (19) tankers over three years. The value of the agreement is approximately \$ 33 million (KD 9.74 million), making it the largest of its kind across the Arabian Gulf region. Such agreement allows Kuwait Oil Tankers Company to have majority of its tankers fleet maintained on regular basis at ASRY maintenance facilities in the Kingdom of Bahrain.

KOTC CEO Sheikh Talal Khaled Al Ahmed Al Sabah said that Arab Shipbuilding & Repair Yard Company (ASRY) will carry out repairs and dry docking operations for 19 tankers including 12 oil product tankers, 4 LPG tankers and 2 replenishment oilers in addition to support boat at its yards and perform comprehensive maintenance thereon covering hull, tank cleaning, painting and periodic maintenance activities for engines and various navigation instruments.

Sheikh Talal emphasized that ASRY is considered one of the world's top renowned companies in its field. ASRY's several repair facilities and services and its track record



performance qualify it to be long term unique partner of KOTC in fleet maintenance quality assurance. He pointed out that the recently signed agreement shall come into force with immediate effect where the first tanker (Jabriya 2) is set to be received at ASRY during February of this year. Eight tankers will undergo maintenance in 2015 while nine tankers are scheduled in 2016 and 2 tankers in 2017.

He also indicated that signing such agreement demonstrates Kuwait Oil Tankers Company's commitment to maintain safety and efficiency of its fleet through periodic maintenance and dry-docking operations at highest standards and most favorable prices.

The comprehensive agreement made by Kuwait Oil Tankers Company with ASRY will be conducive to mutual cooperation between both companies allowing them to have prior mutual preparation and planning before tankers enter the dry dock. In addition, KOTC obtains favorable price as a result of prior commitment under such agreement and has priority for booking dry-docking periods and planning of the scope of work.

## 1. Oil Market

### 1. Prices

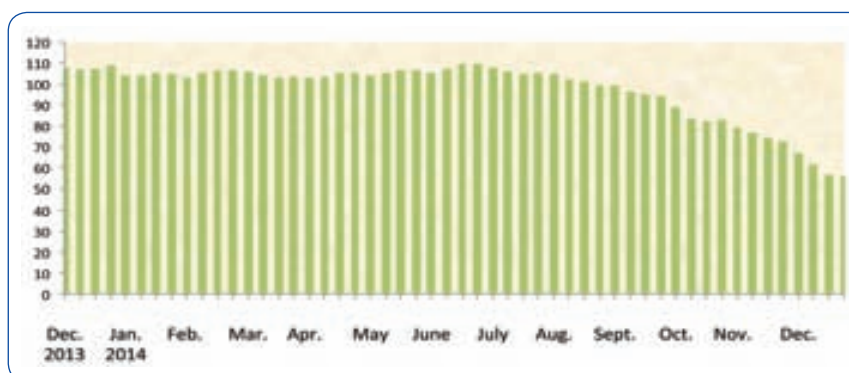
#### 1-1Crude Oil Prices

Weekly average price of OPEC basket decreased during the first week of December 2014, recording \$66.7/bbl, and continued to decline after that, to reach its lowest level of \$56.2/bbl in the fourth week, as shown in figure 1:

On monthly basis, OPEC Reference Basket averaged \$59.5/bbl, the lowest level since May 2009, representing a decrease of \$16.1/bbl or 21.3% comparing with previous month, and a decrease of \$48.2/bbl or

44.8% from the same month of previous year. Concerns about the pace of global economic growth, robust supply and lackluster demand and strong US dollar, were major stimulus for the decrease in oil prices during the month of December 2014.

**Figure - 1** Weekly Average Spot Price of the OPEC Basket of Crudes 2013 - 2014 (\$/bbl)



### Key Indicators

- ✎ In December 2014, **OPEC Reference Basket decreased** by 21.3% or \$16.1/bbl from the previous month level to stand at \$48.2/bbl.
- ✎ **World Oil Demand** in December 2014, **increased** by 0.3% or 0.3 million b/d from the previous month level to reach 94.3 million b/d.
- ✎ **World oil supplies** in December 2014, **increased** by 0.9% or 0.9 million b/d from the previous month level to reach 96.6 million b/d.
- ✎ **US crude oil imports** in November 2014, **increased** by 1% from the previous month level to reach 7.3 million b/d, and **US product imports increased** by 5.6% to reach about 1.6 million b/d.
- ✎ **OECD commercial inventories** in November 2014 **decreased** by 8 million barrels from the previous month level to reach 2697 million barrels, whereas **Strategic inventories** in OECD-34, South Africa and China **increased** by 1 million barrels from the previous month level to reach 1755 million barrels.
- ✎ **The average spot price of natural gas** at the Henry Hub in December 2014 **decreased** by \$0.90/million BTU from previous month level to reach \$3.19/ million BTU.
- ✎ **The Price of Japanese LNG imports decreased** in November 2014 by \$0.3/m BTU to reach \$15.6/m BTU, the **Price of Chinese LNG imports decreased** by \$0.7/m BTU to reach \$11.6/m BTU, and the **Price of Korean LNG imports decreased** by \$0.3/m BTU to reach \$15.9/m BTU.
- ✎ **Arab LNG exports to Japan, Korea and China** were about 4.436 million tons in November 2014 (a share of 38.4% 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, 2013-2014 (\$/bbl)

	Dec. 2013	Jan 2014	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
OPEC Basket Price	107.7	104.7	105.3	104.2	104.3	105.4	107.9	105.6	100.8	96.0	85.1	75.6	59.5
Change From previous Month	2.7	-3.0	0.7	-1.2	0.1	1.2	2.5	-2.3	-4.9	-4.8	-10.9	-9.5	-16.1
Change from same month of previous Year	1.1	-4.6	-7.4	-2.2	3.2	4.8	6.9	1.2	-4.8	-12.7	-21.6	-29.4	-48.2

\* 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, 2013-2014 (\$/bbl)

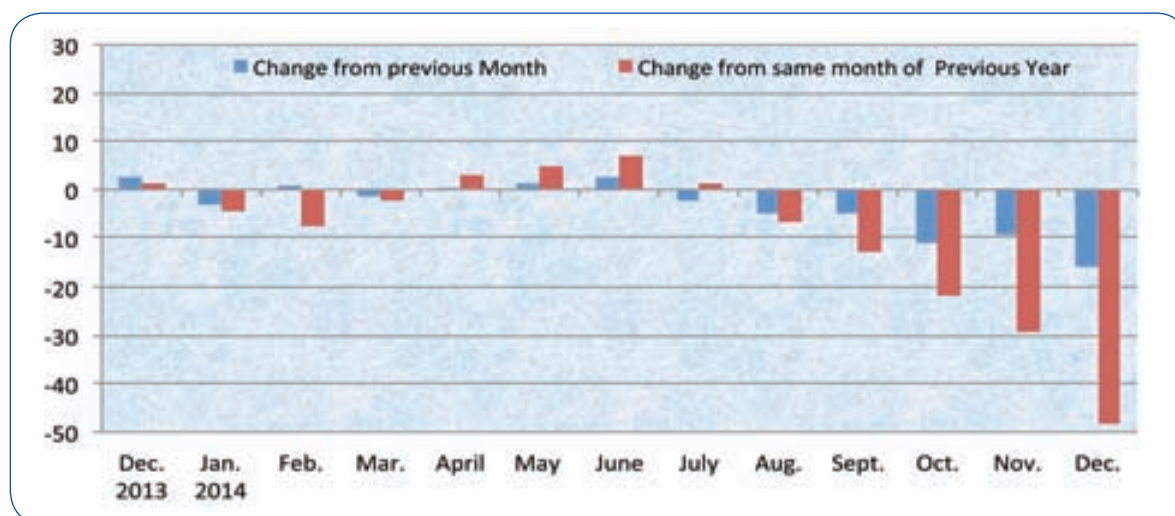


Table (3) in the annex show spot prices for OPEC basket and other crudes for the period 2012-2014.

## 1-2 Spot Prices of Petroleum Products

### - US Gulf

In November 2014, the spot prices of premium gasoline decreased by 16% or \$17.9/bbl comparing with their previous month levels to reach \$94.0/bbl, spot prices of gas oil decreased by 8.2% or \$8.4/bbl to reach \$93.5/bbl, and spot prices of fuel oil decreased by 11% or \$8.6/bbl to reach \$69.4/bbl.



### - Rotterdam

The spot prices of premium gasoline decreased in November 2014, by 7.8% or \$8.1/bbl comparing with their previous month levels to reach \$95.8/bbl, spot prices of gas oil decreased by 6% or \$6.1/bbl to reach \$96.3/bbl, and spot prices of fuel oil decreased by 14.3% or \$11/bbl to reach \$65.5/bbl.

### - Mediterranean

The spot prices of premium gasoline decreased in November 2014, by 8.2% or \$8.2/bbl comparing with previous month levels to reach \$91.4/bbl, spot prices of gas oil decreased by 6.1% or \$6.2/bbl to reach \$95.4/bbl, and spot prices of fuel oil decreased by 13.4% or \$10.2/bbl to reach \$66.3/bbl.

### - Singapore

The spot prices of premium gasoline decreased in November 2014 by 10.6% or \$10.7/bbl comparing with previous month levels to reach \$90.4/bbl, spot prices of gas oil decreased by 5.8% or \$5.8/bbl to reach \$95.5/bbl, and spot prices of fuel oil decreased by 9.5% or \$7.6/bbl to reach \$71.7/bbl.

Figure (3) shows the price of Premium gasoline in all four markets from November 2013 to November 2014.

**Figure - 3** Monthly Average Spot Prices of Premium Gasoline, 2013-2014 (\$/bbl)

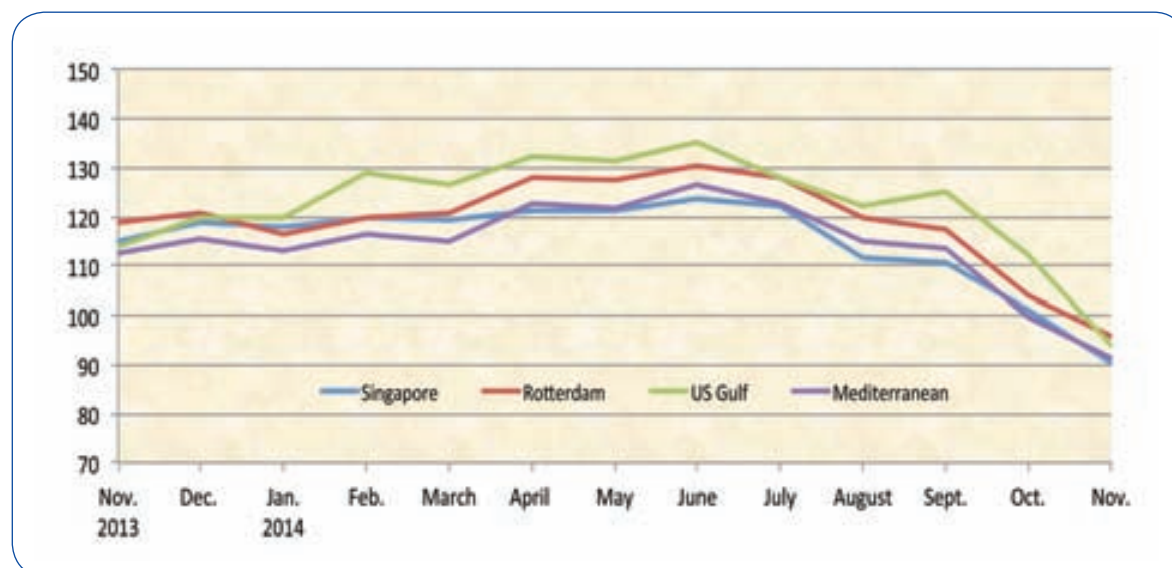


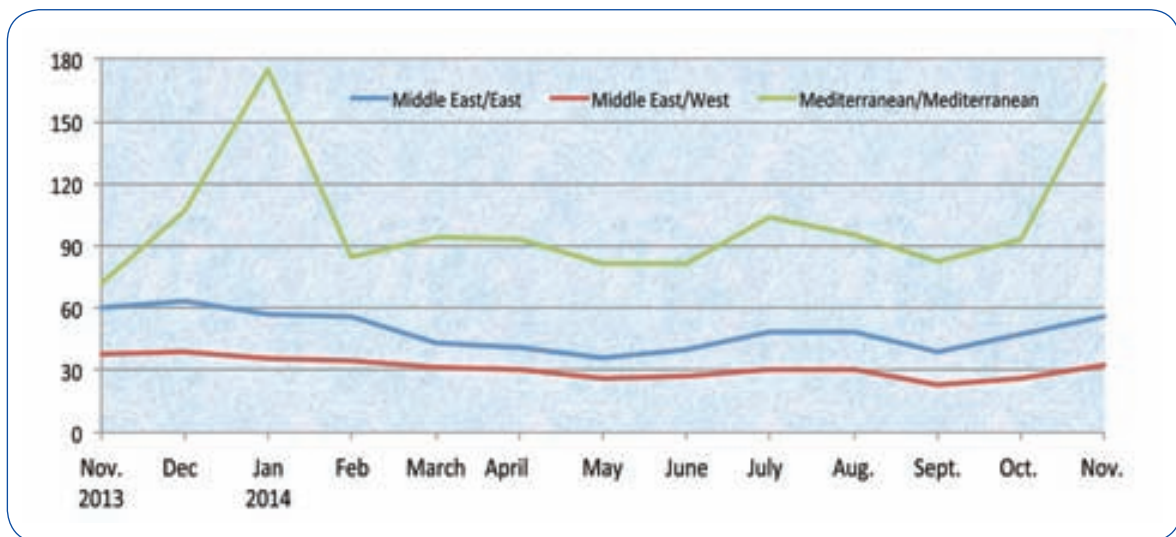
Table (4) in the annex shows the average monthly spot prices of petroleum products, 2012-2014.

### 1-3 Spot Tanker Crude Freight Rates

In November 2014, Freight rates for crude oil for tanker size (230-280 thousand deadweight tons (dwt)), leaving Middle Eastern ports to the East, increased by 9 points or 19.1% comparing with previous month to reach 56 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, increased by 7 points or 27% comparing with previous month to reach 33 points on the World Scale (WS), and freight rates for inter - Mediterranean for small to medium sized tankers (80-85 thousand deadweight tons (dwt)), increased by 75 points or 80.6% comparing with previous month to reach 168 points on the World Scale (WS).

Figure (4) shows the freight rates for crude oil to all three destinations from November 2013 to November 2014.

**Figure - 4** Monthly Spot Crude Oil Tanker Freight Rates, 2013 -2014 (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 2014, 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 2.4% comparing with previous month to reach 126 points on WS. freight rates for Petroleum





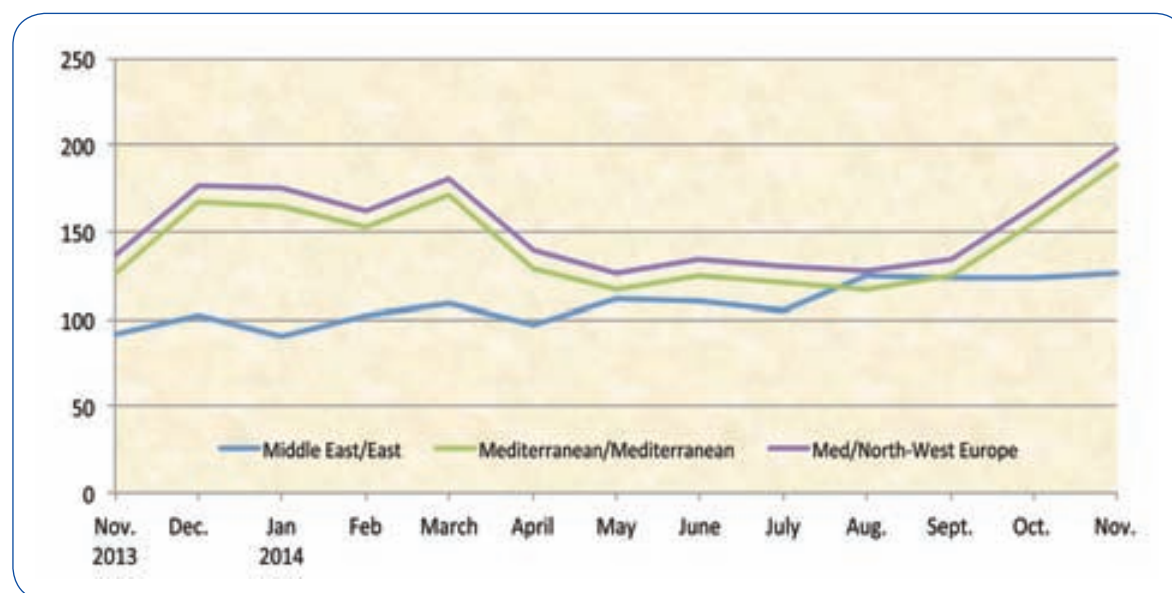
Products across Mediterranean [for tanker size 30-35 thousand deadweight tons (dwt)], increased by 33 points, or 21.3% to reach 188 points on WS, similarly freight rates for petroleum products [for tanker size 30-35 thousand deadweight tons (dwt)], leaving Mediterranean to North-West Europe increased by 33 points, or 20% to reach 198 points on WS.

Figure (5) shows the freight rates for oil products to all three destinations from November 2013 to November 2014.

Table (5) and (6) in the annex show crude and products Tankers Freight Rates, 2012-2014.

**Figure - 5 Monthly Spot Product Tanker Freight Rates, 2013 -2014**

(World Scale)



## 2. Supply and Demand

Preliminary estimates in December 2014 show an **increase** in **world oil demand** by 0.3% or 0.3 million b/d, comparing with the previous month to reach 94.3 million b/d, representing an increase of 1.3 million b/d from their last year level.

Demand in **OECD** countries **increased** by 0.3% or 0.1 million b/d comparing with their previous month level to reach 46.8 million b/d, representing an increase of 0.6 million b/d from their last year level. and demand in **Non-OECD** countries **increased** by 0.3% or 0.1 million b/d comparing with their previous month level to reach 47.5 million b/d, representing an increase of 0.7 million b/d from their last year level.



On the supply side, preliminary estimates show that world oil supplies for December 2014 **increased** by 0.9% or 0.9 million b/d comparing with the previous month level to reach 96.6 million b/d, a level that is 3.2 million b/d higher than last year.

In December 2014, **OPEC** crude oil and NGLs/condensates total supplies **increased** by 1.9% or 0.7 million b/d comparing with the previous month level to reach 37.3 million b/d, a level that is 1.1 million b/d higher than last year. and Preliminary estimates show that **Non-OPEC** supplies **increased** by 0.5% or 0.3 million b/d comparing with the previous month level to reach 59.3 million b/d, a level that is 2.1 million b/d higher than last year.

Preliminary estimates of the supply and demand for December 2014 reveal a surplus of 2.2 million b/d, compared to a surplus of 1.6 million b/d in November 2014 and a surplus of 0.4 million b/d in December 2013, as shown in [table \(2\)](#) and [figure \(6\)](#):

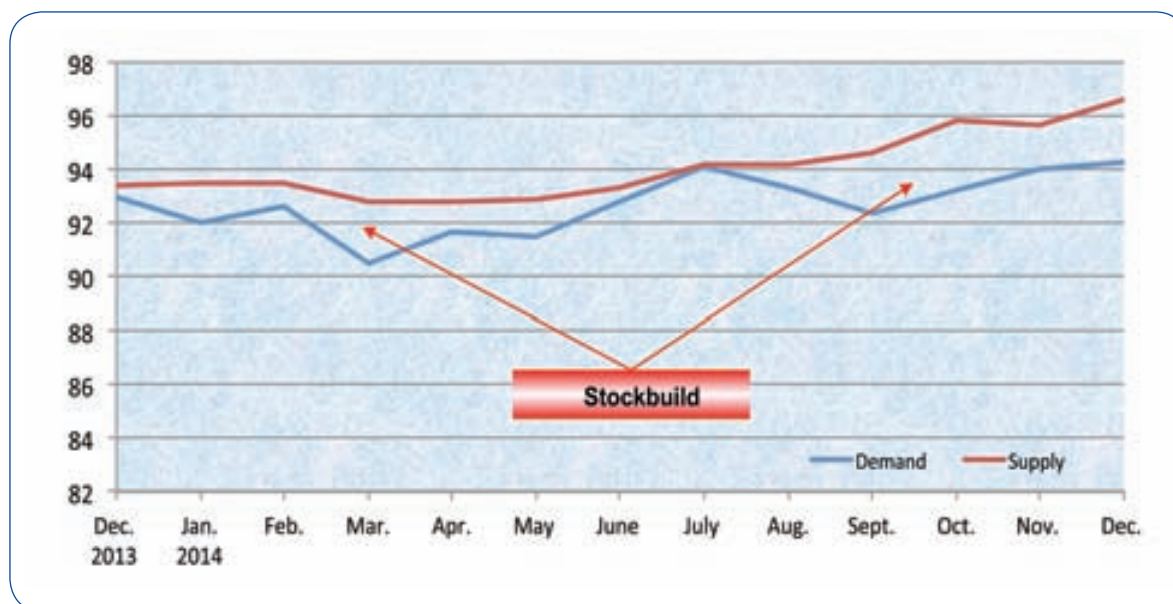
[Tables \(7\)](#) and [\(8\)](#) in the annex show **world oil demand and supply** for the period 2012-2014.

	<i>December 2014</i>	<i>November 2014</i>	<i>Change from November 2014</i>	<i>December 2013</i>	<i>Change from December 2013</i>
<i>OECD Demand</i>	46.8	46.7	0.1	46.2	0.6
<i>Rest of the World</i>	47.5	47.4	0.1	46.8	0.7
<i>World Demand</i>	<b>94.3</b>	<b>94.0</b>	<b>0.3</b>	<b>93.0</b>	<b>1.3</b>
<i>OPEC Supply:</i>	37.3	36.6	0.7	36.2	1.1
<i>Crude Oil</i>	30.6	30.0	0.6	29.8	0.8
<i>NGL's &amp; Cond.</i>	6.7	6.6	0.1	6.4	0.3
<i>Non-Opec Supply</i>	57.0	56.7	0.3	54.6	2.4
<i>Processing Gain</i>	2.3	2.3	0.0	2.6	<b>-0.3</b>
<i>World Supply</i>	<b>96.6</b>	<b>95.7</b>	<b>0.9</b>	<b>93.4</b>	<b>3.2</b>
<i>Balance</i>	<b>2.2</b>	<b>1.6</b>		<b>0.4</b>	

Source: Energy Intelligence Briefing January 7, 2015.

**Figure - 6 World Supply and Demand**

(Million b/d)



### 3.Oil Trade

#### USA

In November 2014, US crude oil imports increased by 75 thousand b/d or 1% comparing with the previous month level to reach 7.3 million b/d, and US oil products imports increased by 88 thousand b/d or 5.6% to reach about 1.6 million b/d.

On the export side, US crude oil exports decreased by 23 thousand b/d to reach about 393 thousand b/d, and US products exports decreased by 75 thousand b/d or 2.1% comparing with the previous month level to reach 3.5 million b/d. As a result, US net oil imports in November 2014 were 261 thousand b/d or nearly 5.4% lower than the previous month, averaging 5.1 million b/d.

Canada remained the main supplier of crude oil to the US with 43% of total US crude oil imports during the month, followed by Saudi Arabia then Mexico with 10%. OPEC Member Countries supplied 34% of total US crude oil imports.

#### Japan

In November 2014, Japan's crude oil imports decreased by 233 thousand b/d or 7% comparing with the previous month to reach 3.1 million b/d, the lowest level since June 2014. Whereas Japan oil product imports increased by 188 thousand b/d or 37% comparing with the previous month to reach 700 thousand b/d.





On the export side, Japan's oil products exports increased in November 2014, by 24 thousand b/d or 4.6% comparing with the previous month, averaging 544 thousand b/d. As a result, Japan's net oil imports in November 2014 decreased by 68 thousand b/d or 2.1% to reach 3.2 million b/d.

Saudi Arabia remained the main supplier of crude oil to Japan with 31% of total Japan crude oil imports, followed by UAE with 26% and Russia with 13% of total Japan crude oil imports.

### China

In November 2014, China's crude oil imports increased by 512 thousand b/d or 9% to reach 6.2 million b/d, and China's oil products imports increased by 36 thousand b/d or 4% to reach 962 thousand b/d.

On the export side, China's oil products exports decreased by 145 thousand b/d or 17% to reach 700 thousand b/d. As result, China's net oil imports reached 6.5 million b/d, representing an increase of 12% comparing with the previous month.

Saudi Arabia remained the main supplier of crude oil to China with 16% of total China's crude oil imports during the month, followed by Angola with 14% and Russia with 13% of total China's crude oil imports.

Table (3) shows changes in crude and oil products net imports/(exports) in November 2014 versus the previous month:

**Table 3** USA, Japan and China Crude and Product Net Imports / Exports ( Million bbl/d)

	Crude Oil			Total Products		
	November 2014	October 2014	Change from October 2014	November 2014	October 2014	Change from October 2014
USA	6.930	6.832	0.098	-1.857	-2.020	0.163
Japan	3.077	3.310	-0.233	0.156	-0.009	0.165
China	6.200	5.688	0.512	0.081	0.081	0.181

Source: OPEC Monthly Oil Market Report, various issues 2014.



## 4. Oil Inventories

In November 2014, **OECD commercial oil inventories** decreased by 8 million barrels to reach 2697 million barrels – a level that is 85 million barrels higher than a year ago. It is worth mentioning that during the month, **commercial crude inventories in OECD** decreased by 14 million barrels to reach 998 million barrels, whereas **commercial oil products inventories** increased by 6 million barrels to reach 1699 million barrels.

**Commercial oil inventories in Americas** decreased by 7 million barrels to reach 1403 million barrels, of which 538 million barrels of crude and 865 million barrels of oil products. **Commercial oil Inventories in Europe** increased by 5 million barrels to reach 883 million barrels, of which 300 million barrels of crude and 583 million barrels of oil products. **Commercial oil inventories in Pacific** decreased by 6 million barrels, to reach 411 million barrels, of which 160 million barrels of crude and 251 million barrels of oil products.

**In the rest of the world**, commercial oil inventories increased by 13 million barrels to reach 2483 million barrels, and the **Inventories at sea** decreased by 9 million barrels to reach 1045 million barrels.

As result, **Total Commercial oil inventories** in November 2014 increased by 5 million barrels comparing with the previous month to reach 5180 million barrels – a level that is 273 million barrels higher than a year ago.

**Strategic inventories** in OECD-34, South Africa and China increased by 1 million barrels comparing with the previous month to reach 1755 million barrels – a level that is 15 million barrels higher than a year ago.

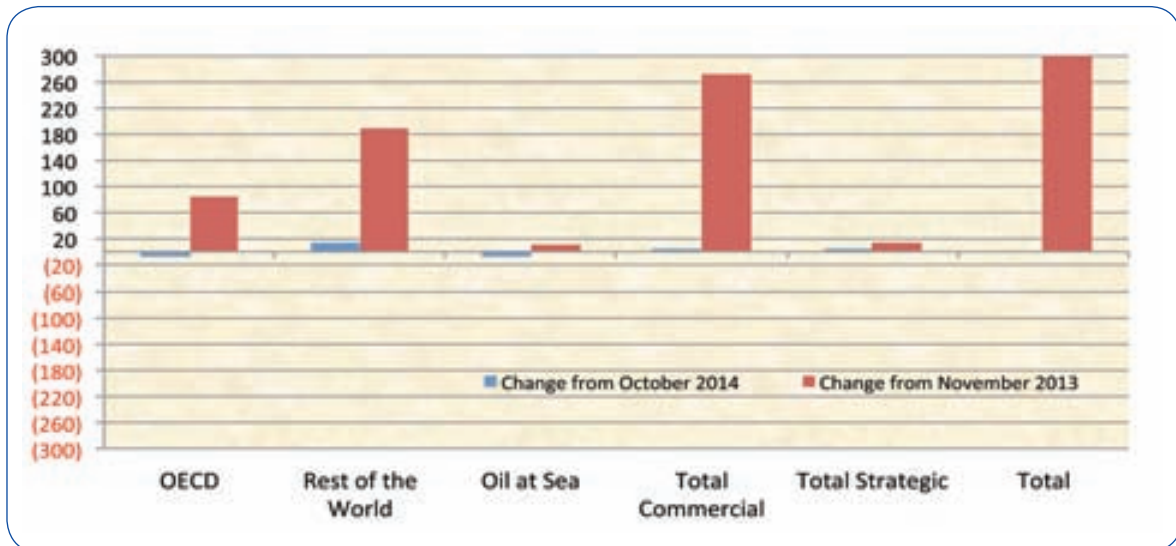
**Total world inventories**, at the end of November 2014 were at 7980 million barrels, representing a decrease of 3 million barrels comparing with the previous month, and an increase of 298 million barrels comparing with the same month a year ago.

Table (9) in the annex and figure (7) show the changes in global inventories prevailing at the end of November 2014.



Figure - 7 Changes in Global Inventories at the End of November 2014

(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 2014 decreased by \$0.90/million BTU comparing with the previous month to reach \$3.19/ million BTU.

The comparison, shown in table (4), between natural gas prices and those for the WTI crude and low sulfur fuel oil reveal differential of \$7.1/ million BTU in favor of WTI crude and \$7.8/ million BTU in favor of low sulfur fuel oil.

Table 4 Henry Hub Natural Gas, WTI Crude Average, and Low Sulfur Fuel Oil Spot Prices, 2013-2014 (Million BTU<sup>1</sup>)

	Dec. 2013	Jan. 2014	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Natural Gas <sup>(2)</sup>	4.2	3.3	5.8	3.8	4.7	4.6	4.1	3.8	3.9	3.9	3.9	4.1	3.2
WTI Crude <sup>(3)</sup>	16.8	16.4	17.4	17.3	17.6	17.6	18.1	17.7	16.6	16.1	14.6	13.1	10.3
Low Sulfur Fuel Oil (0.3%)	19.4	19.0	20.7	18.3	18.0	17.1	16.9	17.4	16.4	15.9	14.2	13.2	11.0

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 January 7, 2015

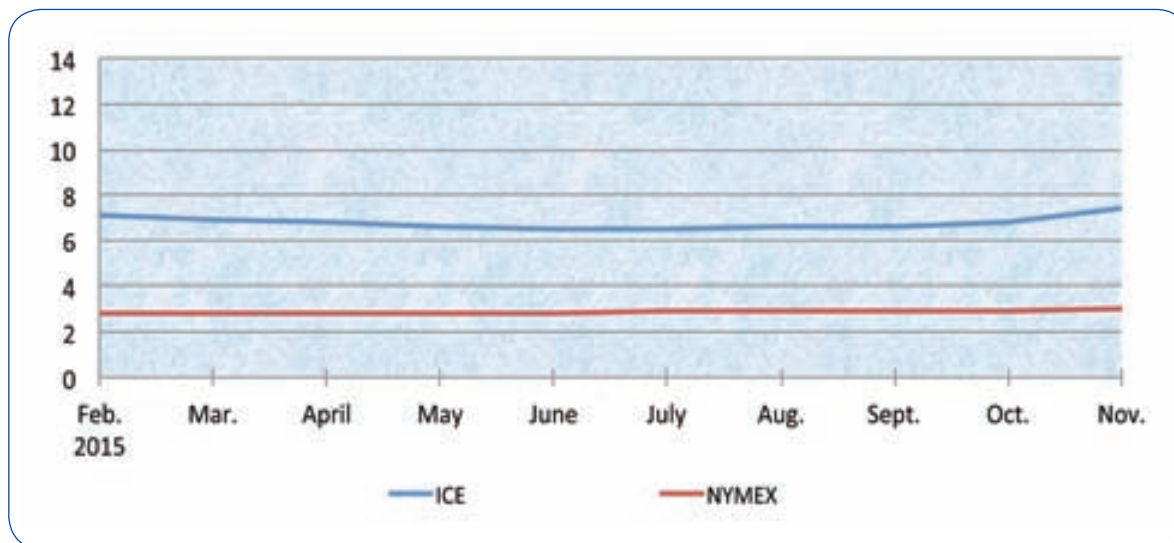




Futures gas prices recorded on January 12, 2015, indicate that those quoted at the London's ICE were higher than those quoted at the NYMEX for the period from February 2015 to November 2015, with maximum differential of \$4.37/ million BTU in November 2015. These developments are shown in figure (8).

**Figure - 8 Gas Futures, January 12, 2015**

(\$/Million BTU)



Source: World Gas Intelligence December 10, 2014.

## 2- Asian LNG Markets

In November 2014, the price of Japanese LNG imports decreased by \$0.3/million BTU comparing with the previous month to reach \$15.6/ million BTU, the price of Chinese LNG imports decreased by \$0.7/million BTU comparing with the previous month to reach \$11.6/ million BTU, and the price of Korean LNG imports decreased by \$0.3/million BTU comparing with the previous month to reach \$15.9/ million BTU.

Total Japanese, Korean and Chinese LNG imports from various sources, increased by 4.4% or 486 thousand tons from the previous month level to reach 11.566 million tons.

The Arab countries LNG exports to Japan, Korea and China totaled 4.436 million tons - a share 38.4% of total Japanese, Korean and Chinese LNG imports.

Table (5) shows the prices and quantities of LNG imported by Japan, South Korea, and China for the period 2009-2014.



**Table 5** LNG Prices and Imports: Korea, Japan, and China 2009-2014

	Imports				10.Average Import Price		
	(thousand tons)				(\$/million BTU)		
	Japan	Korea	China	Total	Japan	Korea	China
<b>2009</b>	<b>64492</b>	<b>25847</b>	<b>5532</b>	<b>95871</b>	<b>9.0</b>	<b>10.0</b>	<b>4.4</b>
<b>2010</b>	<b>70008</b>	<b>32466</b>	<b>9295</b>	<b>111769</b>	<b>10.8</b>	<b>10.4</b>	<b>6.1</b>
<b>2011</b>	<b>78411</b>	<b>36679</b>	<b>12215</b>	<b>127305</b>	<b>14.7</b>	<b>12.5</b>	<b>9.1</b>
<b>2012</b>	<b>87184</b>	<b>36399</b>	<b>14698</b>	<b>138281</b>	<b>16.6</b>	<b>14.5</b>	<b>10.8</b>
<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>Jan. 2013</b>	8230	3982	1505	13717	15.9	14.8	11.5
<b>February</b>	7525	4144	1412	13081	16.5	15.0	13.3
<b>March</b>	7739	4174	1257	13170	16.3	15.2	10.5
<b>April</b>	7050	3513	1559	12122	16.2	14.3	10.9
<b>May</b>	6421	2915	1352	10688	16.2	14.6	9.1
<b>June</b>	6442	2788	1250	10480	16.6	14.9	11.0
<b>July</b>	7412	2426	1347	11185	16.2	14.9	10.8
<b>August</b>	7249	3271	1689	12209	15.6	14.7	11.5
<b>September</b>	6582	2476	1517	10575	15.0	14.9	11.8
<b>October</b>	7538	3189	1356	12083	15.2	14.4	9.4
<b>November</b>	7217	3277	1318	11812	15.4	14.5	9.5
<b>December</b>	8085	4020	2435	14540	16.4	14.6	13.8
<b>Jan. 2014</b>	8179	4451	2652	15282	16.7	15.5	13.3
<b>February</b>	7511	4194	1498	13203	16.8	16.5	11.7
<b>March</b>	8044	4115	1479	13638	16.6	16.5	12.0
<b>April</b>	7212	3220	1375	11807	16.8	16.4	10.8
<b>May</b>	6495	2212	1579	10286	16.3	16.3	11.4
<b>June</b>	6821	2207	1343	10371	16.1	16.6	11.2
<b>July</b>	7838	2182	1835	11855	16.1	16.3	10.3
<b>August</b>	7050	2543	1582	11175	15.7	16.2	11.7
<b>September</b>	7276	2302	1394	10972	15.2	16.5	12.2
<b>October</b>	6944	2755	1381	11080	15.9	16.2	12.3
<b>November</b>	6877	2932	1757	11566	15.6	15.9	11.6

Source: World Gas Intelligence various issues.



## Jordan

Jordan's National Electric Power Company has signed an agreement with Shell to provide 150 million cubic feet of LNG per day. Under the five-year agreement that starts in August 2015, Jordan will pay some \$500 million per year during the agreement's period at the current prices of LNG. The quantities Shell will supply each day cover some 15% of Jordan's power needs and 25% of the power company's needs for power generation.

## China

Chinese Government data published recently showed that China's imports of crude oil set record high growth in December 2014 by 13.4% annually reaching 7.18 million barrels/day. KSA continued to be top oil exporter to China with a growth of 8.6% in December 2014 reaching 1.07 million barrels/day, followed by Angola by 4.4% or 911,000 b/d, and Russia in the third place by an increase of 85.9% or 880,000 b/d.

## India

India's oil imports from Iran rose by 42% in 2014 compared to 2013. India has imported about 276,800 b/d of Iranian crude and condensates in 2014 compared to about 195,600 b/d in 2013. The Indian Refining Company purchases of Iranian oil rose by 39% in December 2014 compared to November of the same year.

## Canada

The Canadian Association of Oil Well Drilling Contractors' forecasted a drop in actual crude oil exploration activities in Canada by 41% in 2015 due to the current slump of oil prices. The new forecasts, based on \$55 per West Texas crude barrel, showed that the number of operating oil wells on a daily basis across Canada will fall from 370 in 2014 to 203 in 2015. CAODC November 2014 forecasts were based on \$85 per barrel. The Association projected that current oil price drop will lead to cutting 3400 direct jobs in the oil sector and 19500 indirect jobs in 2015.

## USA

Baker Hughes for oil services reported that the number of US rigs actively drilling for oil and natural gas fell by 61 rigs in the first week of January, the biggest decline during the past 24 years. The data showed companies continued to reduce the number of rigs for the fifth week to face the drop of oil prices. The data also showed that the rigs count has fallen to 1421 in a single week until 9 January 2015, the lowest since February 2014. In spite of the recent fall in rigs number, the count is still higher than the same period in 2014 which has been 1393. On the other hand, the number of US rigs actively drilling for natural gas has increased by one rig in the first week of January 2015 reaching 329 rigs.

## Norway

On 20 January 2015, The Norwegian Government has put forward a new definition of the Arctic Circle allowing for inviting firms to drill for oil and gas further inside the area. Arctic ice has shrunk significantly over the past years to areas considered outside the oil and gas exploration limits. The Government plans to allocate new areas for the energy companies which would cover the eastern part of the Barents Sea, where Norway settled a 40-year border dispute with Russia in 2010 and which has been free of ice since 2004. Under a redefinition of risks of sea ice, the industry would gain access to acreage 60 to 70 kilometers north of already accessible areas measured in April 2014.

## BHP Billiton

The world's biggest foreign shale oil investor in the USA BHP Billiton has announced cutting back its operating US shale oil rigs by 40% amid slumping prices. BHP said that spending on drilling and development of onshore oil and gas fields reached \$1.9 b in the second half of 2014 compared to \$2.1 b for the same period in 2013.





**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:    /    /