

# OPEC bulletin

6-7/18



OPEC  
7<sup>th</sup> International Seminar  
Vienna, Austria  
SUSTAINABLE GLOBAL ENERGY FUTURE

OPEC  
7<sup>th</sup> International Seminar  
Vienna, Austria

Special

174<sup>th</sup> OPEC Conference

4<sup>th</sup> OPEC and non-OPEC Ministerial



# OPEC

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# OPEC International Seminar: records and reflections

A great deal of European history has been written at the magnificent Hofburg Palace in Vienna. It was here where the Congress of Vienna met in 1814 and 1815, a meeting of ambassadors of European states chaired by the legendary Austrian statesman Klemens von Metternich. It was a meeting that many have credited as having created long-term stability across Europe.

The emphasis on dialogue and stability made the Hofburg Palace an entirely appropriate location for the two-day 7<sup>th</sup> OPEC International Seminar, with its central theme: 'Petroleum — cooperation for a sustainable future', tackling such issues as evolving a sustainable energy future; technology breakthroughs; the energy transition; the environment; oil industry challenges; investments; and, the global economy.

At OPEC, we believe in continuing to develop existing and new avenues of cooperation with innovative thinking and collaboration on key issues, many of which are complex, broad and inter-related. The 7<sup>th</sup> OPEC International Seminar was a perfect platform for this.

The Seminar brought together people from all over the world to listen to the wisdom and insights from a veritable who's who of global oil and energy industry leaders, who discussed and debated the industry's pressing challenges and future opportunities. It was also a perfect venue for participants to reacquaint themselves with old contacts and friends, and make new ones too.

This year's Seminar broke new ground and set new records, with more than 950 participants from over 50 nations, around 80 speakers, 60 ministers and CEOs, 19 sponsors, 20 exhibitors, and 170 journalists, analysts and photographers. It saw the Secretariat's audiovisual team take over 7,000 pictures and record more than 9 terabytes of video coverage, while the Organization received thousands of interactions on both Twitter and Facebook.

It was also an occasion to reflect on the industry's past, present and future, and it was evident among participants that the importance of dialogue between all industry stakeholders has never been greater in this increasingly interdependent world. The Seminar was an ideal opportunity to reinforce existing bonds, and build new bridges.

This was evident in the talk about the impact of the historic 'Declaration of Cooperation', between 24 OPEC and non-OPEC producers (now 25 with the Republic of the Congo joining OPEC),

which has over the last 18 months helped bring more balance to the oil market, more confidence to the industry and has had a positive impact on the global economy and trade worldwide.

The general sentiment at the Seminar was that the 'Declaration of Cooperation' now constitutes a fundamental and essential feature of the 'new world of energy'. Moreover, it is clear it has caused a significant and positive shift in industry-wide and public perceptions of OPEC.

In looking to the future, there was near unanimous opinion that the industry should be optimistic. That is not to say that the industry does not face challenges and uncertainties, many of which were deliberated on at the Seminar, but oil will remain a central part of the global energy mix for the foreseeable future.

The upbeat nature of the Seminar was reflected in the closing remarks from the OPEC Secretary General, Mohammad Sanusi Barkindo, who said that his interactions over the past two days, especially with the young students and leaders of tomorrow, "means I bound with optimism that even though we have achieved so much in the past, our industry's best days are ahead of us."

To secure this future, the focus needs to be on ensuring a sustainable stability, with a healthy balance between supply and demand, and where both producers and consumers are satisfied.

These were issues to the fore on the two days following the Seminar, at the 174<sup>th</sup> Meeting of the OPEC Ministerial Conference and the 4<sup>th</sup> OPEC and non-OPEC Ministerial Meeting. Here, countries decided that they will strive to adhere to the overall conformity level in the 'Declaration of Cooperation', voluntarily adjusted to 100 per cent, as of July 1, 2018.

Moreover, all the countries at these meetings reaffirmed their commitment to a stable market, the mutual interest of producing nations, the efficient, economic and secure supply to consumers, and a fair return on invested capital.

It proved to be a busy week, but one of great accomplishment and significant achievements. What was palpably central to all of it was one word: cooperation. It is something that OPEC truly values, and believes in.

As the English philosopher and Noble Prize winner Bertrand Russell aptly once said: *"The only thing that will redeem mankind is cooperation."*





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**OPEC**  
International  
Seminar  
Vienna, Austria

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*This month's cover reflects the 7<sup>th</sup> International OPEC Seminar, held in Vienna, Austria, June 20–21, 2018 (see story on p30).*

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## OPEC

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## OPEC Membership and aims

OPEC is a permanent, intergovernmental Organization, established in Baghdad, on September 10–14, 1960, by IR Iran, Iraq, Kuwait, Saudi Arabia and Venezuela. Its objective — to coordinate and unify petroleum policies among its Member Countries, in order to secure a steady income to the producing countries; an efficient, economic and regular supply of petroleum to consuming nations; and a fair return on capital to those investing in the petroleum industry. Today, the Organization comprises 15 Members: Qatar joined in 1961; Libya (1962); United Arab Emirates (Abu Dhabi, 1967); Algeria (1969); Nigeria (1971); Angola (2007); Equatorial Guinea (2017). Ecuador joined OPEC in 1973, suspended its Membership in 1992, and rejoined in 2007. Indonesia joined in 1962, suspended its Membership on December 31, 2008, reactivated it on January 1, 2016, but suspended its Membership again on December 31, 2016. Gabon joined in 1975 and left in 1995; it reactivated its Membership on July 1, 2016. The Republic of the Congo joined the Organization on June 22, 2018.





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#### Contributions

The *OPEC Bulletin* welcomes original contributions on the technical, financial and environmental aspects of all stages of the energy industry, as well as research reports and project descriptions with supporting illustrations and photographs.

#### Editorial policy

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Suhail Mohamed Al Mazrouei (c), United Arab Emirates Minister of Energy and Industry, and President of the OPEC Conference 2018; Eng Patricio Larrea (l), Chairman of the OPEC Board of Governors and Ecuador's Governor for OPEC; and Mohammad Sanusi Barkindo (r), OPEC Secretary General.

# The 174<sup>th</sup> Meeting of the OPEC Conference

*The 174<sup>th</sup> Meeting of the OPEC Conference was held in Vienna on June 22, 2018. Attended by delegations from all 14 of the Organization's Member Countries, the meeting was held under the Chairmanship of Conference President, Suhail Mohamed Al Mazrouei, United Arab Emirates Minister of Energy and Industry, who also served as Head of the country's Delegation. The OPEC Bulletin provides the following overview of the meeting.*





*Suhail Mohamed Al Mazrouei (on screen), United Arab Emirates Minister of Energy and Industry, and President of the OPEC Conference 2018, during the opening session of the 174<sup>th</sup> Meeting of the OPEC Conference, with Members of the OPEC management and distinguished delegates.*

Following the successful conclusion of the 7<sup>th</sup> OPEC International Seminar that took place from June 20–21, the OPEC Conference held its 174<sup>th</sup> Meeting at the OPEC Secretariat. The semi-annual gathering was an opportunity to analyze oil market developments since the Conference last met in November 2017, as well take stock of developments through the optics of the landmark ‘Declaration of Cooperation’ between 24 participating OPEC and non-OPEC producers.

In his opening address, the President of the OPEC Conference, Suhail Mohamed Al Mazrouei, United Arab Emirates Minister of Energy and Industry, began by saying that it had particularly gratifying to witness the past couple of days of the OPEC International Seminar. “It was an extremely impressive occasion, with a whole host of industry leaders providing their thoughts and insights on a variety of important industry topics and issues.”

He added that the event also “underlines the

importance that OPEC attaches to dialogue and cooperation and how bringing together all industry stakeholders can help us find reasons and solutions to some of the challenges, and opportunities, that we all face.”

### Market improvements

Al Mazrouei stated that this was especially important given the recent, and current, oil market environment. He noted that since the last Meeting of the Conference in late November 2017, the oil market situation has further improved, with the global economy strong, oil demand remaining relatively robust, the market rebalancing, and with the return of more stability being welcomed by all stakeholders.

He added that the market has also continued to see the firm and unwavering resolve from OPEC and non-OPEC participants in the ‘Declaration of Cooperation’, which



## Algeria



Mustapha Guitouni (c), Minister of Energy, Algeria; Eng Mohamed Hamel (r), Senior Advisor to the Minister and Algerian Governor to OPEC; and Dr Achraf Benhassine (l), Algeria's National Representative to OPEC.



## Angola



Dr Diamantino Pedro Azevedo (c), Minister of Petroleum and Mineral Resources, Angola; Estêvão Pedro (l), Angola's Governor for OPEC.



## Congo



Jean-Marc Thystere Tchicaya (l), Republic of the Congo's Minister of Hydrocarbons.

has been reflected in the unprecedented overall conformity levels from participating countries.

In this regard, he said he would like “to acknowledge and praise all of my colleagues from OPEC Member Countries, as well as participating non-OPEC nations, who have exhibited high levels of conformity.”

He also thanked OPEC's Economic Commission Board, the Joint Ministerial Monitoring Committee (JMMC), the Joint Technical Committee (JTC) and the OPEC Secretariat who have all assisted in the effective and efficient implementation of the ‘Declaration of Cooperation’.

“They have helped deliver the impressive results we have witnessed, and their technical inputs and insights will feed into this Ministerial meeting and the 4<sup>th</sup> OPEC and non-OPEC Ministerial Meeting tomorrow,” he said.

### Support for market stability

Al Mazrouei said that the ‘Declaration’ fully demonstrates OPEC's commitment to sustainable market stability, with our Member Countries playing a vital role in returning optimism to the oil market; one that is central to global economic well-being.

He stated that it had also caused a significant change in industry-wide and public perceptions of OPEC. “The Organization has ably demonstrated its credentials as a body committed to international cooperation, working with other producers, honouring its commitments and promoting respect among all nations.”

Moreover, he noted, the ‘Declaration’ has also received





Ecuador



Eng Carlos E Pérez (l), Minister of Hydrocarbons, Ecuador; and Eng Patricio Larrea (r), Ecuador's Governor for OPEC and Chairman of the Board of Governors.



Equatorial Guinea



Gabriel Mbaga Obiang Lima (c), Minister of Industry, Mines & Energy, Equatorial Guinea, with members of his delegation.



Gabon



Pascal Houangni Ambouroue (c), Minister of Petroleum and Hydrocarbons, Gabon; with Etienne Lepoukou (r), Gabon's Governor for OPEC; and André-Brice Boumbendje (l), Gabon's National Representative to OPEC.





IR Iran



Eng Bijan Namdar Zangeneh (c), Minister of Petroleum, IR Iran, with members of his delegation.



Iraq



Jabbar Ali Hussein Al-luiebi (c), Minister of Oil, Iraq; with Alaa K Alyasri (r), Iraq's Governor for OPEC; and Ihsan Ismaeel Al-Saade, Director General, Basrah Oil Company, Iraq.



Kuwait



Bakheet S Al-Rashidi (c), Minister of Oil, Minister of Electricity & Water, Chairman of the Board, Kuwait Petroleum Corporation (KPC); Haitham Al-Ghais (r), Kuwait's Governor for OPEC; and Sadiq Marafi (l), Kuwait's Ambassador to Austria.

backing from other producers, as well as from consumers, and various global institutions.

He added that it is “also a platform that remains open to all producers.”

### Focus today

Al Mazrouei said that the Conference would today review all the market fundamentals to help “better understand the market balance and stability we all desire, in the interests of producers, consumers and the global economy.”

He stressed that the Organization fully appreciates and takes on board the viewpoints and concerns of all industry stakeholders. “We are watchful, responsive and fully committed to market stability and global energy security.”

He said that the Organization's focus is on making sure that the market is both well-supplied and balanced. “We need to continue to tread carefully; none of us want to see the return of the kind of volatility that allows pessimism to return to the markets.”

He also mentioned that this includes looking beyond the short-term, with a specific focus on investments. Thus far in 2018, “the pace of investment has gradually picked up, but we are still not seeing enough robust investment in long-cycle projects. These are the baseload of future supply, the foundation of this industry's future, and will be vital to long-term global economic expansion.”

The Conference President put this into some perspective, by stating that in the period to 2040, the required global oil sector investment in OPEC's *World Oil Outlook* is estimated to be \$10.5 trillion, with





Libya



*Mustafa Abdallah Sanalla (c), NOC Chairman, Libya, with members of his delegation.*



Nigeria



*Dr Emmanuel Ibe Kachikwu (c), Minister of State for Petroleum Resources, Nigeria; Dr Omar Farouk Ibrahim (l), Nigeria's Governor for OPEC; and Mele Kyari (r), Nigeria's National Representative to OPEC.*



Qatar



*Dr Mohammed Bin Saleh Al-Sada (c), Minister of Energy & Industry, Qatar; Saad Sherida Al-Kaabi (r), President and CEO of Qatar Petroleum; and Sheikh Ali Bin Jassim Al-Thani (l), Ambassador of the State of Qatar to Austria.*





Saudi Arabia

Eng Khalid A Al-Falih (c), Saudi Arabia's Minister of Energy, Industry and Mineral Resources; HRH Prince Abdulaziz Bin Salman Bin Abdulaziz Al Saud (l), Minister of State for Energy Affairs, Kingdom of Saudi Arabia; and other members of the delegation.



United Arab Emirates

Eng Ahmed Mohamed Alkaabi (c), the UAE's Governor for OPEC; and other delegates.



Venezuela

Manuel Salvador Quevedo Fernandez (c), People's Minister of Petroleum, Venezuela; Eng Angel Gonzalez Saltron (r), Venezuela's Governor for OPEC; and Ronny Romero (l), Venezuela's National Representative to OPEC.

oil demand set to surpass 111 million barrels/day by 2040. He added that it is also important to remember that investments are not only about boosting new production; oil producers also need to account for natural decline rates.

"Every effort," Al Mazrouei said, "should be made to avoid a potential supply gap that could present a future serious challenge."

### Institutionalizing the cooperation

Beyond the important task of rebalancing markets in the short-term, Al Mazrouei also reiterated the vision for a cooperative and forward-looking OPEC, "something that I have outlined since assuming the Presidency of OPEC at the start of this year."

He said that over the next couple of days, and in the months ahead, "we will look to further institutionalize this cooperation, in order to continuously adapt to ongoing market dynamics, in pursuit of the interests of producers and consumers, whilst promoting healthy global economic growth."

"It is important that we maintain all possible avenues for cooperation and understanding for the benefit of OPEC countries, in particular, and the world at large."

### Reaffirming commitment to the 'Declaration of Cooperation'

Following a full review of oil market developments since it last met in Vienna at the end of November and the oil market outlook for the remainder of 2018 and in to 2019, the Conference noted the overall improvement in market conditions





### Press conference

Above: Suhail Mohamed Al Mazrouei, President of the OPEC Conference 2018, and Minister of Energy and Industry, United Arab Emirates; with (above right) Mohammad Sanusi Barkindo (c), OPEC Secretary General; and Hasan Hafidh (r), Head of OPEC's PR & Information Department; and (right), Members of the international media.



and sentiment and the return of confidence and investment to the oil industry.


It also reaffirmed “OPEC’s continued commitment to stable markets, the mutual interest of producing nations, the efficient, economic, and secure supply to consumers, and a fair return on invested capital.”

In recalling, the 171<sup>st</sup> OPEC Conference resolution reached on November 30, 2016, for an OPEC production adjustment of 1.2m b/d, and noting that OPEC Member Countries have exceeded the required level of conformity that reached 152 per cent in May 2018, “the Conference hereby decided that countries will strive to adhere to the overall conformity level of OPEC-12, down to 100 per cent, as of July 1, 2018.” This would be “for the remaining duration of the above mentioned resolution” and stated that the JMMC should continue to monitor developments and report back to the President of the Conference.

### Congo joins; other acknowledgements

The Conference also considered Congo’s request to join the Organization and decided to approve its admission with immediate effect. *(For more details on this, and Congo’s oil industry, see page 146).*

The Conference also welcomed the positive dialogue and technical expert interactions that have evolved among all Parties of the ‘Declaration of Cooperation’. This includes the most recent 3<sup>rd</sup> Technical Meeting of OPEC and non-OPEC Producing Countries on June 19 (*see page 28*), which focused on oil market fundamentals and medium-term prospects.

The Conference also expressed its continued sincere gratitude to the government and to the people of the Republic of Austria, as well as the authorities of the city of Vienna, for their warm hospitality and excellent arrangements made for the Conference Meeting. 

# 4<sup>th</sup> OPEC and non-OPEC Ministerial Meeting

*The 4<sup>th</sup> OPEC and non-OPEC Ministerial Meeting of signatories to the ‘Declaration of Cooperation’ took place in Vienna on June 23, 2018. Attended by delegations from all OPEC Member Countries, the ten participating non-OPEC producing countries, as well as three non-OPEC observers, the meeting was chaired by **Suhail Mohamed Al Mazrouei**, President of the OPEC Conference, and UAE Minister of Energy and Industry, and **Alexander Novak**, Minister of Energy of The Russian Federation. The OPEC Bulletin provides the following overview of the meeting.*

*L–r: Alexander Novak, Minister of Energy of The Russian Federation; Suhail Mohamed Al Mazrouei, United Arab Emirates Minister of Energy and Industry, and President of the OPEC Conference; and Mohammad Sanusi Barkindo, OPEC Secretary General.*





## Azerbaijan



*Parviz Shahbazov, Minister of Industry and Energy, Azerbaijan.*

It was clear among delegates attending the 4<sup>th</sup> OPEC and non-OPEC Ministerial Meeting that the period since the 3<sup>rd</sup> Ministerial Meeting at the end of November 2017 had seen more confidence and optimism return to the global oil market. There was an acknowledgment that the rebalancing had accelerated, a sustainable stability was slowly returning, and the 'Declaration of Cooperation' had proven to be a key factor in the positive market realignment.

Mohammad Sanusi Barkindo, OPEC Secretary General, opened proceedings by saying that it is my distinct honour once again to invite the President of the OPEC Conference, and the co-Chair of the OPEC and non-OPEC Ministerial Conference, Suhail Mohamed Al Mazrouei, President of the OPEC Conference, and UAE Minister of Energy and Industry, to declare the 4<sup>th</sup> OPEC and non-OPEC Ministerial Meeting open.

Al Mazrouei stated that was "another landmark meeting for our ever-evolving and innovative cooperation. We are truly pleased to see so many OPEC Ministers and other Heads of Delegation from non-OPEC producing countries here with us today."

He personally welcomed his counterpart as co-Chair, Alexander Novak, Minister of Energy of The Russian Federation, and said that "it is a great pleasure to share this platform with you."

### Returning stability

The Conference President said that the joint decision taken on November 30, 2017, to amend the 'Declaration of Cooperation' to take effect for the whole year of 2018 "was welcomed by the market and it is evident that it has played an extremely important role in helping to further rebalance the market and bring about more stability.

"The decision last year also pledged the full and timely conformity of OPEC and participating non-OPEC countries in accordance with the voluntary agreed production adjustments in the 'Declaration

## Bahrain



*Shaikh Mohammed bin Khalifa Al Khalifa, Minister of Oil, Bahrain.*

## Brunei Darussalam



*Dato Mat Suny Hussein, Minister of Energy and Industry, Brunei Darussalam.*



Kazakhstan



Kanat Bozumbayev (l), Minister of Energy, Kazakhstan; and Magzum Mirzagaliyev (r), Vice-Minister of Energy, Kazakhstan.



Malaysia



Dato' Ganeson Sivagurunathan, Ambassador of Malaysia to the Republic of Austria.



Mexico



Dr Aldo Flores-Quiroga, Deputy Secretary of Energy for Hydrocarbons, Mexico.



Oman



Dr Mohammed bin Hamad Al Rumhy, Minister of Oil and Gas, Oman.

of Cooperation'. In this regard, I am happy to report that we have seen overall monthly conformity levels well above 100 per cent in the months since the last Ministerial meeting."

In this regard, he noted that it was important to recognize the tremendous efforts of the Joint Ministerial Monitoring Committee (JMMC), ably supported by the Joint Technical Committee (JTC) and the OPEC Secretariat, who have shown great diligence and commitment in helping achieve these concrete results.

He stressed that all this clearly demonstrates the commitment of participating countries to the restoration of market stability, which is intended to serve the long-term interests of producers, consumers and the global economy.

Our 24 countries have made an extraordinary difference, he said, "through a common, collective and collaborative framework for cooperation. This has been broadly recognized by other producers, companies, as well as a number of global institutions."

### Evolving cooperation

Al Mazrouei also referenced the fact that the OPEC Secretariat has also organized a series of OPEC and non-OPEC Technical Meetings under the umbrella of the 'Declaration of Cooperation', the third of which took place earlier in the week. "These have achieved a commendable level of knowledge-exchange much coveted by our industry, and now constitute an essential part of our closer engagement."

He said that these supporting organs of the cooperation have helped guide and enhance the work being undertaken. "They are insightful and dynamic forums, producing high quality market analyses and valuable insights."

In looking ahead, he also stressed that there is no ceiling on how many countries can join the forum that is, the 'Declaration of Cooperation'. He said that there is an open invitation for all oil producers to join with us and work responsibly towards market rebalancing in the interests of all.

At this point, he acknowledged a number of additional non-OPEC producers that "have joined us today in solidarity with the 'Declaration of Cooperation'. These are Chad, Egypt, Uganda, South Africa, as well as the African Petroleum Producers Association."

He emphasized that "we need to keep in mind that





it took all of us together to bring the oil market out of the wilderness, and we need to take these lessons into the future.

“Obviously our central focus remains on the present, but we should also not lose sight of the importance of institutionalizing this cooperative process into a broader framework to ensure continuity. I hope that this is something we can bridge today.”

### 174<sup>th</sup> OPEC Conference

Al Mazrouei noted the 174<sup>th</sup> Meeting of the OPEC Conference from the previous day, which discussed the current oil market situation and the outlook for the remainder of 2018 and into 2019. He stated “these issues will now be deliberated with Your Excellencies from the non-OPEC producers today.”

He also recalled the important decision taken by the 174<sup>th</sup> Meeting of the OPEC Conference, and underscored the importance of working in unison. “It is vital that our hard-earned improvements are not compromised or lost.”

### Advancing discussion and debate

Novak thanked Al Mazrouei, Barkindo, and Khalid A Al-Falih Minister of Energy, Industry & Mineral Resources, and co-Chair of the JMMC, who had devoted a lot of effort and professionalism over the last few days.

He applauded the OPEC International Seminar and stated that one of the key takeaways from the event “is the positioning of our industry.” He said that he believes “it is one of the main hi-tech sectors in the world, is one of the key drivers of the global economy, and fulfills the interests, and works for the benefit, of all the population on our planet.”

He stressed that is important to spend more time and effort on discussions with the global expert community and discuss some of those challenges that stand ahead of us.

Novak added that “we are responsible for the energy security of the planet. We help to develop and spread technology. And we are responsible for preparing the next generation of experts that are going to work in our industry.”

### Decisive action

Novak stated that now was the time to discuss “the



*Mikhail Ulyanov (r), The Russian Federation’s Ambassador to Austria; and Roman Marshavin (l), Director, Department of International Cooperation, Ministry of Energy, The Russian Federation.*

### Sudan



*Saadeldin Hussein Elbushra Abdelmagid, State Minister (Ministry of Petroleum and Gas), Republic of the Sudan.*

### Chad



*Valerie Commelin, Downstream Advisor, Ministry of Energy and Petroleum, Chad.*

### Egypt



*Eng Tarek El Molla, Minister of Petroleum and Mineral Resources, Egypt.*

South Africa *Rose Ntlou, Head of the Delegation of South Africa.*Uganda *Eng Irene Nafuna Muloni, Minister of Energy and Mineral Development, Uganda.*

African Petroleum Producers Association

*Mahaman Laouan Gaya, Executive Secretary, APPA.*

interim results of this year, our cooperation, as well as the strategy that will make going forward a sustainable process.”

Our decisive action has not only helped stabilize the market,” he said, “it has also had an extremely positive effect on the global economy.

“What we started back in December 2016 has created the basis for what could become future permanent cooperation between the leading oil producers.”

He noted that in the current market conditions “I think it is of utmost importance that we show the market that we are ready to once again take decisive action.”


### Decision taken

The press release from the meeting reaffirmed the continued commitment of the participating producing countries in the ‘Declaration of Cooperation’ to a stable market, the mutual interest of producing nations, the efficient, economic, and secure supply to consumers, and a fair return on invested capital, and noted the overall improvement in market conditions and sentiment, and the return of confidence and investment to the oil industry.

It also recalled the 171<sup>st</sup> OPEC Conference Resolution reached on November 30, 2016, for a production adjustment of 1.2 million barrels/day for OPEC Member Countries, with the understanding reached with key non-OPEC participating countries, including The Russian Federation, to contribute a production adjustment of 600,000 b/d.

It then recalled the ‘Declaration of Cooperation’ reached on December 10, 2016; and noted that countries participating in the ‘Declaration’ have exceeded the required level of conformity that had reached 147 per cent in May 2018.

Accordingly, the 4<sup>th</sup> OPEC and non-OPEC Ministerial Meeting hereby decided that countries will strive to adhere to the overall conformity level, voluntarily adjusted to 100 per cent, as of July 1, 2018, for the remaining duration of the ‘Declaration of Cooperation’ and for the JMMC to monitor the overall conformity level and report back to the OPEC and non-OPEC Ministerial Meeting.

The decision was in line with that taken at the 174<sup>th</sup> Meeting of the OPEC Conference the previous day. 





At the Joint Press Conference of the 4<sup>th</sup> OPEC and non-OPEC Ministerial Meeting are (l-r): Alexander Novak, Minister of Energy, The Russian Federation; Eng Khalid A Al-Falih, Saudi Arabia's Minister of Energy, Industry and Mineral Resources; Suhail Mohamed Al Mazrouei, President of the OPEC Conference 2018, and Minister of Energy and Industry, United Arab Emirates; Mohammad Sanusi Barkindo, OPEC Secretary General; Hasan Hafidh, Head, OPEC's PR & Information Department; and Pavel Sorokin, Deputy Energy Minister, The Russian Federation.



The 9<sup>th</sup> Meeting of the Joint Ministerial Monitoring Committee (JMMC) was held at the Secretariat on June 21.



The 17<sup>th</sup> Meeting of the Joint Technical Committee (JTC) was held at the Secretariat on June 19.



## Azerbaijan presents gift to OPEC



*Unveiling a picture of the world's first industrially drilled oil well (1846), located in Baku, Azerbaijan, the cradle of the modern oil industry.*



Following the opening speeches at the 4<sup>th</sup> OPEC and non-OPEC Ministerial Meeting on June 23, and a video highlighting the new *Monthly Oil Market Report (MOMR)* mobile App (see page 162), the OPEC Secretary General, Mohammad Sanusi Barkindo, took to the floor.

He noted that the *MOMR* App represented something new, a symbol of the industry's future, but what he was now going to introduce represented "our heritage, the past, an innovation that transformed our industry.

"This stretches all the way back to the Middle Ages. In the 14<sup>th</sup> century, the legendary explorer Marco Polo wrote that people in Azerbaijan were already using oil for treatment and household purposes."

### Historic development

Azerbaijan was, indeed, the location of many 'firsts' in the historic development of this industry. Within three decades of the first oil well being drilled in 1846, the world witnessed the building of the first wooden oil derrick in 1871, the first distillery in 1876 and the first oil tanker in 1877.

Barkindo said that this is a compelling story of a Caspian country that rose from modest roots to leverage its natural resources and go on to become a key energy player on the international stage. He added that "there is no doubt that Azerbaijan will continue to play a significant role in the decades to come."

The OPEC Secretary General also acknowledged the tremendous support of the President of Azerbaijan, Ilham Aliyev, who has not only played an extremely constructive and important role both in securing the adoption of the 'Declaration of Cooperation', but who has also been influential in shepherding its ongoing successful implementation.

He noted that Azerbaijan has consistently been one of the highest performing participating countries of the 'Declaration of Cooperation' in terms of the voluntary production adjustments.

Barkindo also recognized the untiring support and contributions of Azerbaijan's Energy Minister, Parviz Shahbazov, who has played a pivotal role, alongside his non-OPEC colleagues, in fostering the ongoing success of this unprecedented cooperation.



*Parviz Shahbazov,  
Azerbaijan's Energy Minister,  
presenting the gift.*


The OPEC Secretary General then invited Shahbazov forward to present a special gift to OPEC, to the OPEC and non-OPEC nations in the room, and to the global oil industry.

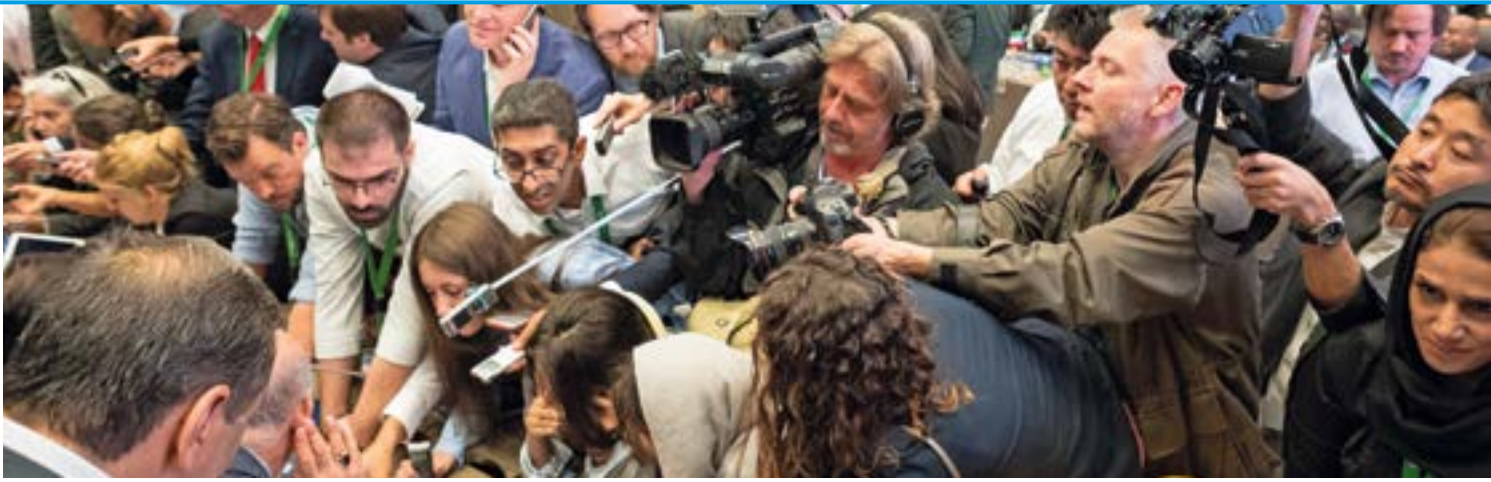
Shahbazov offered his thanks to all Ministers, delegations and colleagues, and said he was extremely "proud to present this picture that depicts the first drilling well in the world, made in an industrial way, located in Azerbaijan, in the vicinity of Baku."

He said that it was extremely symbolic to present this at the headquarters of OPEC and during the OPEC and non-OPEC Ministerial Meeting of the 'Declaration of Cooperation'.

"As my dear friend, Mohammad Barkindo mentioned, oil in Azerbaijan has been extracted manually since ancient times, but only in 1846 when the first industrially well was drilled did the 'black gold' spout into the air," Shahbazov said.

He added that this was the dawn of the new oil and petroleum era, which successfully continues today, and will no doubt have a great future.

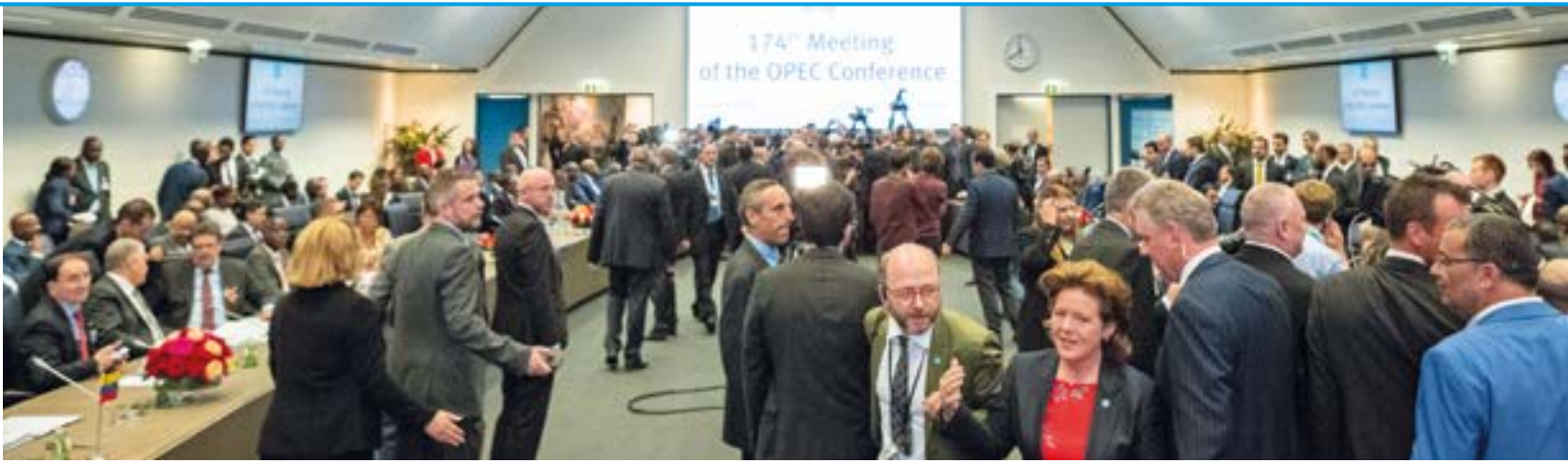
He thanked everyone for the opportunity to give this present, which was then unveiled. 



## Impressions of the Conference







*Ministerial Conference interviews***Oil Ministers discuss market, investments, ‘Declaration of Cooperation’**

*The following interviews from high-level officials were conducted by the OPEC Bulletin at the 174<sup>th</sup> Meeting of the OPEC Conference and the 4<sup>th</sup> OPEC and non-OPEC Ministerial Meeting.*

**Eng Bijan Namdar Zanganeh**

*Minister of Petroleum, IR Iran*



*Eng Bijan Namdar Zanganeh.*

IR Iran's Minister of Petroleum, Eng Bijan Namdar Zanganeh, in talking about the decision reached by OPEC Member Countries at the 174<sup>th</sup> Meeting of the OPEC Conference said that "it was good that we agreed, as I proposed firstly, not to change our resolution that we had before."

He added that "we agreed to recommend to Member Countries to reduce conformity ... to 100 per cent not more," which he said is the first time in the his-

tory of OPEC that Members have been asked to reduce conformity.

Zanganeh said that the decision was "good for the unity and solidarity between OPEC Member Countries."

In a question about the 7<sup>th</sup> OPEC International Seminar, the Minister said that the event had been "good ... better than the two seminars I was in before." He also

noted the importance of cooperation, in this regard, and added "that the main achievement that OPEC has made in recent years is that it has received cooperation, especially from Russia. I think it is one of the most important achievements of OPEC."

In talking about developments in the IR Iran, specifically South Pars, Zanganeh said that at "South Pars we have six phases under construction and before the end of this Iranian year, we hope to complete and operate four phases, and two phases will be completed next year."

He added that this will significantly increase gas output, which will most be used locally, "because we have a shortage, especially in winter, because the difference between our consumption in summer and winter is more than 300 million cubic metres/day."

In terms of oil, he said that "we have no difficulties in oil production. Now we are producing 3.8m b/d and the difficulty we are facing are the sanctions against us, not the ability of IR Iran to produce. We are focusing on how to get past this situation."

**Jabbar Ali Hussein Al-luiebi**

*Minister of Oil, Iraq*

Jabbar Ali Hussein Al-luiebi, Iraq's Minister of Oil, was asked initially about the 'Declaration of Cooperation' and the decision taken by the 174<sup>th</sup> Meeting of the OPEC Conference.

He said that "everybody is happy and we are delighted that we reached a good historical decision." He





*Jabbar Ali Hussein Al-luiebi.*

added that it is a decision that the Organization hopes will have a good impact on the market in terms of stability and reducing volatility.

In terms of the role of Iraq, he said that “Iraq has played a good role and Iraq was really in fact the dynamo that was effective in narrowing the gap between the group that have different opinions and different approaches.”

### **Bakheet S Al-Rashidi**

*Minister of Oil, Minister of Electricity & Water, Kuwait, Chairman of the Board — Kuwait Petroleum Corporation (KPC)*

In responding to a question about the decisions taken at the 174<sup>th</sup> Meeting of the OPEC Conference and the 4<sup>th</sup> OPEC and non-OPEC Ministerial Meeting, Kuwait’s Minister of Oil and its Minister of Electricity & Water, Bakheet S Al-Rashidi, said that “we are very proud to have an agreement with members of OPEC and non-OPEC participants and this is for me an historical moment. I feel that together we will be able to stabilize the market in one way or another.”

In terms of what the ‘Declaration of Cooperation’ has meant to Kuwait, Al-Rashidi said that the country



*Bakheet S Al-Rashidi.*

supports stability in the international community. “Yes, it is supporting our economy, but at the same time it is supporting the consumers. Because volatility in the market hurts everybody.”

He also noted that investments were also impacted by the high volatility, but stated that with the return of stability to the international market he expects to “see a flow of investment soon and this will support everybody, producers, consumers, as well as the oil industry in its entirety.”

From the perspective of Kuwait, he said “we did not stop investment in the oil and gas business ... and we are continuing with our mid-term and long-term investment.” He added that “we are a little bit fortunate because we are financing our own projects to a certain extent.”

When asked about downstream investments in Kuwait, Al-Rashidi said: “We already have mega projects in our downstream activities.” He highlighted the revamping of the existing Mina Al-Ahmadi (MAA) and Mina Abdullah (MAB) refineries, the greenfield 615,000 b/d al-Zour refinery, as well as petrochemical integration projects.

He added that “this is only inside Kuwait, outside of Kuwait we are also investing in refining projects,” which he noted included projects in Vietnam and Oman.

Al-Rashidi said that “our strategy calls for investment inside Kuwait, as well as outside Kuwait, and we have

been distributing our investments between downstream, upstream and petrochemicals, both inside and outside of Kuwait.”

### Shaikh Mohammed bin Khalifa Al Khalifa

*Minister of Oil, Bahrain*

In talking about the ‘Declaration of Cooperation’, Shaikh Mohammed bin Khalifa Al Khalifa, Bahrain’s Minister of Oil, said that “we have come here a few times since 2016, and the cooperation agreement has really changed the dynamics of the way OPEC and non-OPEC work together.

“It was certainly a historic decision to bring the market back into balance and we have achieved that to the benefit of the total economy, not just the producers, but the consumers as well, and bringing stability back to the oil market.”

He added that the decisions taken at the 174<sup>th</sup> Meeting of the OPEC Conference and the 4<sup>th</sup> OPEC and non-OPEC Ministerial Meeting, again “emphasize the importance of OPEC and OPEC+ in bringing stability to the market and you can see the praise coming from the consuming nations.”

In talking about developments in Bahrain, he said that “in the upstream we are looking at applying a lot of EOR to some of our more difficult reservoirs, we are also

increasing our gas supply by going to tighter formations ... and we are also working on tight oil plays that we have recently discovered.”

From the downstream perspective, he noted that “we are expanding one of the oldest refineries in the region ... we will take it up to around 400,000 b/d, and hopefully it will be one of the more complex refineries. We have also completed the construction of a pipeline between us and Saudi Arabia to replace an existing one for supply of Arabian Light crude to our refinery.”

He added that “we have a gas plant, LNG terminal, so a lot is going in Bahrain oil and gas.”

### Dr Aldo Flores-Quiroga

*Deputy Secretary of Energy for Hydrocarbons, Mexico*

When asked about the outcome of the 4th OPEC and non-OPEC Ministerial Meeting, Dr Aldo Flores-Quiroga, Deputy Secretary of Energy for Hydrocarbons, Mexico, said “it was a very good meeting, very collegial, very cordial, and it was a very good outcome in terms of market stability.”

Flores-Quiroga was also asked about developments in the Mexican oil industry. He stated that the opening up in Mexico is “a very significant shift after 80 years of having an industry that was closed to private investment.



Shaikh Mohammed bin Khalifa Al Khalifa.



Dr Aldo Flores-Quiroga.



“We have opened it and now we have many, many more companies participating, investing in the resources, talent and technology in Mexico’s oil industry. It is just a beginning, but we are very encouraged by the initial results and we hope to see a much more strong energy industry in Mexico.”

In terms of the key to attract investment, Flores-Quiroga said it is “stable policy, transparency is fundamental and competition as well. The pillars of Mexico’s energy transformation are transparency and competition. The people demand it and companies also react to it very favourably.”

He also noted that the cooperation among producers over the last 18 months has been vital. “I think it is key. We do care about market stability. We are part of conversations with energy producing and consuming countries. Mexico is a member of the IEA and Mexico is open to cooperation and conversation with anyone who wants to create an environment that facilitates investment, but also takes care of the needs of consuming countries.”

### Alexander Novak

*Minister of Energy, The Russian Federation*

Alexander Novak, Minister of Energy, The Russian Federation, was initially asked about the decision taken

at the 4<sup>th</sup> OPEC and non-OPEC Ministerial Meeting, and stated that he was pleased by the decision, “I feel it was the right one to take and very timely.”

In terms of the ‘Declaration of Cooperation’, Novak said it has been shown to be a success and its benefits have been for all market stakeholders. He said that “jointly with OPEC countries and non-OPEC we have done a lot to help the market to stabilize. A lot was done by the OPEC Secretariat, which has provided us with the platform, with the resource, with the team, in order for us to be able to get our acts together in order to facilitate this.”

He added that “in the future I think we will be able to use this mechanism again and again if the market calls for it so it will be a positive factor for everyone.”

### Saadeldin Hussein Elbushra Abdelmagid

*State Minister (Ministry of Petroleum and Gas), Republic of Sudan*

Saadeldin Hussein Elbushra Abdelmagid, State Minister (Ministry of Petroleum and Gas) of the Republic of Sudan stated that the ‘Declaration of Cooperation’ has been extremely significant. “For us, especially in Sudan, it is very important for us to seize this new cooperation between OPEC and non-OPEC countries and I think this



Alexander Novak.



Saadeldin Hussein Elbushra Abdelmagid.

will give us a good opportunity to have a good production and to increase production in Sudan.”

He also noted that “it is also a chance to network with other producers and find out what is going on in other countries too.”

He added that the potential in Sudan is very high. “The potential is ready, we are ready, and the oil is also ready. We are preparing after we break ground (for production contracts).”

### Eng Tarek El Molla

*Minister of Petroleum and Mineral Resources, Egypt*

Eng Tarek El Molla, Egypt’s Minister of Petroleum and Mineral Resources, said that this was his second time at the OPEC Secretariat and he was “very proud to be part of what is happening and to participate in such an important meeting between OPEC and non-OPEC countries.”

When asked about Egypt, he said that the reforms the country is undertaking now are encouraging more investment and increasing production in the oil and gas sector. He added that it is thus “very important for us to see what is happening and how the market will react to the decisions taken at this meeting.”

He noted the ‘Declaration of Cooperation’ has been important for the industry, and we see “that a balanced and fair position between the producers and the consumers is the aim of OPEC and non-OPEC and of all the global industry.” He added that “this is in itself

the message that should be spread out and perceived and received by the market, and the market should act accordingly.”

He concluded by highlighting the important role that the oil and gas industries play for Egypt, but added that “we not able to enjoy the full added value since we are still subsidizing energy in Egypt.” In this regard, El Molla talked about energy reforms in Egypt that are looking to reduce subsidies and ultimately see the complete removal of subsidies in a staged manner. 



*Eng Tarek El Molla.*





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# OPEC and non-OPEC technical meeting becoming established



Mohammad Sanusi Barkindo (c), OPEC Secretary General; with Dr Ayed Al-Qahtani (l), Director, OPEC Research Division; and Behrooz Baikalizadeh (r), Head of OPEC's Petroleum Studies Department.

*Participants to the 3<sup>rd</sup> Technical Meeting of the OPEC and non-OPEC producing countries on June 19 had the chance to hear from some of the world's leading experts on supply, demand and market metrics, as well as receiving an update on the OPEC and non-OPEC 'Declaration of Cooperation'. The OPEC Bulletin reports.*

In his opening remarks, OPEC Secretary General, Mohammad Sanusi Barkindo, stated that with “this third edition of our OPEC and non-OPEC technical meeting, under the umbrella of the ‘Declaration of Cooperation’, we can say we have indeed established a tradition based on the core principles of the ‘Declaration’ — cooperation, equity and fairness. This will continue to help shape our participation in the energy transition.”

Barkindo said that the technical meetings come under the second phase of the ‘Declaration’, including more intensive collaboration on subjects of importance and of interest to all parties.

“The real goal is that over time, our bonds will become unbreakable. Only in this way will we be able to remain proactive and effectively address the myriad challenges that face the industry today and tomorrow, and which affect us all.”

Barkindo added that “this has sent a signal to the industry, dragging it out of its darkest hour and back into the light. Given today's optimism, it may be hard for us to remember how difficult times were back then, but there are also many who will never forget the severe cuts, vanished income, job losses and general fear that was overwhelming the market at that time.

“Since the implementation of the ‘Declaration of Cooperation’,

confidence — and along with it investment and jobs — have slowly started to return and there has been a clear, positive effect on the world's economy.”

Finally, the OPEC Secretary General said that the work between OPEC and non-OPEC participants in the ‘Declaration of Cooperation’ has forged new and deeper relationships between the countries and given them a tool to manage market cycles that did not exist before.

“We can be very proud of what we have achieved so far,” he said.

## Fundamentals — demand

The first session on oil market fundamentals dealt specifically with demand in the world's top three consuming countries — the US, China and India — which account for around 70–80 per cent of global demand.

One presenter stated that until 2023 there is a rising uncertainty and downside risk to US medium-term demand, particularly after 2018, with most growth expected to be seen in ethane and liquefied natural gas (LNG). The speaker noted an anticipated



deceleration in the US economy over this time. Moreover, the presenter said, after 2023 there may be higher fuel efficiency standards in the US and more electric vehicles (EVs).

India will be responsible for over one-third of growth in oil demand to 2040, another speaker noted, adding the country has the world's second-largest population, third-largest economy and third-largest energy consumption. India's GDP is expected to grow five-fold by 2040, the presenter said, contributing around one-quarter to world GDP growth.

The Indian government's policies strongly support growth and energy penetration, stated the expert. Currently, the country's energy consumption is about one-third of the global average and half of its population is under the age of 25, which together points to burgeoning future energy growth.

China is the world's second largest oil consumer and greatest importer, said another presenter, adding that growth is expected to continue with expanding refining and storage capacity. Real estate, infrastructure and manufacturing are the three pillars of the country's growth, stated the expert.

A significant risk to growth is the possibility of problems in US and China trade relations, said the presenter. "A trade war between the two biggest economies in the world would be detrimental to world growth and China's."

Meanwhile, the country's energy reforms are continuing; these include energy saving, protecting the environment and shifting the energy mix. "The five-year targets are on track. By 2050 coal should make up only 30 per cent of the energy picture," according to the speaker.

Additionally, the country's independent refineries and strategic petroleum reserves (SPRs) will continue to grow rapidly. Personal income is rising, accompanied by higher demand for private vehicles, and petrochemical feedstock demand is also climbing. However, the country's goal is that by 2040, 50 per cent of vehicles on the road should be EVs.

## Fundamentals — supply

The next session dealt with supply fundamentals and focused specifically on global investment in oil supply post-2014, including the financial aspects of US tight oil production companies, digitization and technological developments.

"One of the most critical issues today is ensuring that there will be adequate and predictable levels of investment to meet the world's current and future requirements, and avoid a potential supply gap that could present a serious challenge to the industry in the medium to long term," said the OPEC Secretary General in his opening speech.

Digitization and technological developments have led to productivity gains and improved efficiency since the 2014 oil market

downturn, particularly in the US shale industry, he said. This, together with strong cost rationalizations, gave birth to the shale revolution, stated Barkindo.

Attendant speakers stated that shale gas is expected to grow through 2018, and that shale and tight oil will likely make up over 90 per cent of the supply increase in the US. However, takeaway capacity is a significant issue for next year due to pipeline constraints, but the general feeling was that this should be resolved by the second half of 2019, according to one speaker. Although cost inflation is a concern in the US shale industry, productivity gains can more than offset this problem, added the speaker.

Non-OPEC supply outside of the US is expected to return to steady growth in 2018 and 2019, with Brazil dominating growth projects, as well as significant contributions from the North Sea and Mexico, stated one presenter.

Confidence is returning to the conventional oil sector, added another speaker, "but there is a shift to meaner, leaner project designs and quicker ramp-up, brownfield expansions, quicker production. The economics are competitive."

There has been a much slower recovery in upstream spending for deepwater projects, according to another speaker, who added that "the repercussions of the 2014 downturn will be felt for decades."


Meanwhile, another speaker said digitalization is not about applying technology, it is about optimizing processes. "Digitization affects all the steps of the oil and gas value chain. Operational costs may drop up to 25 per cent and development costs up to 15 per cent by 2025 due to digitization. Additionally, the time to first oil will be accelerated by up to 35 per cent, with a 50 per cent time reduction in exploration, development and engineering and a 30 per cent time reduction in drilling."

## Metrics to assess sustainable oil market balance

Several speakers voiced their opinion about current and possible future metrics to measure a sustainable oil market balance, in addition to the five-year average metric that had underlay the 'Declaration of Cooperation' since that start of 2017. This topic was further discussed the following day at a special session at the 7<sup>th</sup> OPEC International Seminar (*see page 58*).

A wide variety of ideas were put on the table. "There are different measures, depending on what you want to optimize," said one speaker. "When looking into the details of a model, there are different answers and measures to monitor. We are trying to develop a new approach, system dynamics to model complicated systems."

There is no right or wrong answer, said another speaker, describing market balance as a 'dilemma'.

The meeting was held under the Chatham House rules. 

# Petroleum — cooperation for a sustainable future





# OPEC

## International Seminar

Vienna, Austria



### SUSTAINABLE GLOBAL ENERGY FUTURE







*A record 950+ participants attended the 7<sup>th</sup> OPEC International Seminar in Vienna on June 20–21 at which high-level speakers addressed the main issues surrounding today's international energy markets and spoke of the principle challenges facing the industry going forward. The OPEC Bulletin reports on this major global oil industry event that is now recognized as one of the most significant industry gatherings on the global energy calendar.*

It was a warm opening to the 7<sup>th</sup> OPEC International Seminar, not only in terms of the hot Viennese temperatures with the dial touching 30° C plus, but also in the welcome given to delegates as they arrived at the historic Hofburg Palace in the Austrian capital.

The Hofburg, hosting the event for the fifth successive time, provided the ideal backdrop for the Seminar, which has become one of the most important and influential global energy gatherings.

Drawn from all parts of the globe, a cross-section of some of the energy sector's most influential figures, personalities and stakeholders, assembled in the Hofburg's grandiose conference centre for the Seminar, which was held under the theme 'Petroleum — cooperation for a sustainable future'.





Over a very busy two days, participants were treated to speeches, presentations and analysis covering all aspects of the energy industry, including such issues as evolving a sustainable energy future; technology breakthroughs; the energy transition; the environment; oil industry challenges; investments; and, the global economy.

Bringing together strategic players that have a bearing on the present and future direction of the international petroleum industry, it has developed a wide outreach across the energy sector. In attendance were OPEC oil and energy ministers, non-OPEC oil and energy ministers, heads of major oil companies, international organizations and energy institutions, captains of industry, as well as renowned academics and analysts.

In addition, many members of the international media, who find the OPEC Seminar an invaluable source of information on today's petroleum industry developments, were on hand to conduct numerous interviews, as well as listen to current modes of thinking.

## Opening ceremony

**Eithne Treanor**, E Treanor Media and **John Deferios**, CNN, the two moderators for the Seminar, welcomed everyone to the Seminar.

Deferios underlined the improvements in the oil market since the last Seminar, with the long and arduous road to recovery led by the cooperation between OPEC and non-OPEC producers.

Treanor also noted the unprecedented taken by these producers in 2016, which led her to introduce the

## Setting the Scene

**Meghan O'Sullivan**, Harvard University, helped set the scene for the 7<sup>th</sup> OPEC International Seminar, highlighting various global inflection points.

This included a shifting global world order, the strains on globalization, and the role of technology, highlighting what "was only once imaginable is now possible."

She also noted inflection points

within the realm of energy. This included a number of issues related to OPEC, including the future of the 'Declaration of Cooperation', the role of shale and technology, and the longer term energy transition.

## Moderators



**John Deferios**  
CNN



**Eithne Treanor**  
E Treanor Media



**Mohammad Sanusi Barkindo**  
OPEC Secretary General



**Karin Kneissl**, Minister, Federal Ministry for Europe, Integration and Foreign Affairs, Republic of Austria delivered remarks on behalf of the Austrian Government.

first speaker, “a man who has tirelessly championed unity”, the OPEC Secretary General, **Mohammad Sanusi Barkindo**.

## Cooperation

In his opening remarks, Barkindo, OPEC Secretary General, welcomed everyone to the Seminar and said that this year’s event “is really a who’s who of global oil and energy industry leaders.”

He also noted that the Hofburg had in the past been the bastion of the House of Habsburg, and a focal point for the entire continent of Europe; a building where a great deal of European history had been written.

“It was here where the Congress of Vienna met in 1814 and 1815, a meeting of ambassadors of European states chaired by legendary Austrian statesman Klemens von Metternich. It was a meeting that many have credited as having created long-term stability across Europe,” he said.

“In fact, Austria has a rich legacy of uniting people.” He added that “this has not only been through its great diplomacy, which continues today, but also through marriage! As the famous saying goes: *‘Let others wage war: thou, happy Austria, marry’*.”

He stressed that this emphasis on dialogue, and bringing people together, made the venue an entirely appropriate location for the Seminar, with its central theme: *‘Petroleum — cooperation for a sustainable future’*.

Moreover, it was also a fitting location to recognize the landmark ‘Declaration of Cooperation’ between 24 OPEC and non-OPEC nations that was initially put together in December 2016.

Barkindo said that “the impact of the historic cooperation has exceeded even the most optimistic of predictions. We have not only turned a historic page, but a new glorious chapter is being authored in the history of the industry by OPEC and its non-OPEC partners.”

He added that over the last 18 months, “this cooperation has helped return more balance to the oil market, more optimism to the industry and has had a positive impact on the global economy and trade worldwide.”

The Secretary General stressed the importance of cooperation to all of the topics to be discussed at the Seminar. He added that as history has shown us, working together can help us build bridges, and achieve great things. As the great English poet John Donne aptly said:



*"No man is an island entire of itself;  
Every man is a piece of the continent, a part of the main."*

## Oil's past and future

Barkindo said it was also important to bear in mind that oil has played an indispensable role in fueling our modern civilization, stimulating economic growth, development and helping elevate billions of peoples across continents out of poverty. And this essential fuel will no doubt be vital to future generations.

"We should not forget that today around 3 billion do not have clean fuels for cooking, and 1.1bn have no access to electricity, something that all of us here take for granted," he said.

"When we start up our cars, switch on a light, turn on our mobile phones, we need to recognize that these everyday things are still unknown to billions of people across the world who continue to suffer from energy poverty. It is a universal obligation to address this major challenge in the energy transition. The future of oil and mankind are inextricably linked."

## An Austrian welcome

With the Seminar being held in the Austrian capital, **Karin Kneissl**, Minister for Europe, Integration and Foreign Affairs, Republic of Austria, spoke on behalf of the Austrian Government. She offered a warm welcome on behalf of Austria, and also noted the special role the Hofburg Place had historically played in international dialogue and talks.

She said the Seminar was one of the most important energy events in the global energy calendar, and a major event for the city of Vienna.

She also referenced the future energy transition, and talked about the importance of a permanent "sustainability" in this regard.

Kneissl also opened the OPEC Seminar's exhibition area, alongside, HRH Prince Abdulaziz Bin Salman Bin Abdulaziz Al Saud, Minister of State for Energy Affairs, and **Suhail Mohamed Al Mazrouei**, UAE Minister of Energy & Industry and President of the Conference 2018.

## Positive change since the last Seminar

Al Mazrouei thanked "everyone here today for being part of this prestigious event" and stated that the Seminar is an opportunity to examine and discuss the main issues



**Karin Kneissl** opened the OPEC Seminar's exhibition area, alongside, **HRH Prince Abdulaziz Bin Salman Bin Abdulaziz Al Saud**, Saudi Arabia's Minister of State for Energy Affairs, and **Suhail Mohamed Al Mazrouei**, UAE Minister of Energy & Industry, and President of the Conference 2018.



**Suhail Mohamed Al Mazrouei**, UAE Minister of Energy and Industry, and OPEC Conference President.

and opportunities concerning the oil industry. “It also provides an important event for us to pause and take stock of where our industry stands, today, in a global context.”

In this regard, he remembered the last OPEC Seminar held in June 2015 and the challenges then facing the industry. “The world’s oil supply was significantly outpacing demand, prices were on a downward trend, and companies were slashing investments and jobs.”

For many in the industry, he said, “it felt that the circumstances surrounding the downturn had completely overtaken their day-to-day work. And there was more hardship to come.”



***Suhail Mohamed Al Mazrouei, UAE Minister of Energy and Industry, and OPEC Conference President.***

He recalled that the OPEC Reference Basket price fell by an extraordinary 80 per cent between June 2014 and January 2016; that investments were hit hard, with exploration and production spending falling by a massive 27 per cent in both 2015 and 2016 and with nearly one trillion dollars in investments frozen or discontinued; and that stock levels continued to build and build, with total OECD stock levels reaching their highest level of over 3.1 billion barrels in July 2016.

He said that “the seriousness of these developments led OPEC to embark on extensive consultations among OPEC Member Countries and between OPEC and non-OPEC producing nations in 2016.

“It was clear that there was a need for broad cooperation to turn the industry around, by bringing forward the rebalancing of the global oil market and helping build longer term sustainable market stability. No-one could act alone.”

This eventually led to the ‘Declaration of Cooperation’ at the end of 2016, and Al Mazrouei said that “the past 18 months or so has shown it to be a great success, driven by the excellent conformity levels to the voluntary production adjustments.

“It has reintroduced a long-absent element of stability to the market — there is now far more confidence, trust and certainty in our industry, compared to two years ago.”

He added that “there is now global recognition that without this collaborative action, the market would have continued to exhibit extreme volatility and future uncertainty, with far-reaching negative consequences for producers, consumers, investors, the industry, and the global economy at large.

While acknowledging some very major achievements that we have made to date, he stated that “we are also aware that our work is ongoing.”

He said that “we are continually monitoring the rebalancing process. We continue to consult with all industry stakeholders, taking on board their views and concerns. We will do what is necessary to maintain stability and support global energy security, in the interests of both producers and consumers.”

### Ongoing dialogue efforts

Al Mazrouei said that the OPEC Seminar is part of our ongoing effort to promote dialogue and cooperation with all industry stakeholders. He also highlighted that this includes working with the younger generation, with OPEC recognizing “the importance of developing new talent.”

For this reason, said the Conference President, OPEC has invited students from Member Countries and Austria to attend the Seminar, including young future leaders that have joined from ADNOC and Mubadala in the UAE. “We welcome these individuals who will likely carry the industry’s torch into the future.”

With that he announced that the 7<sup>th</sup> OPEC International Seminar was officially open.







## *in numbers ...*

### **PETROLEUM — cooperation for a sustainable future**

**20–21 June 2018**

Hofburg Palace | Vienna, Austria



**950+ participants**



**2 days**



**30 CEOs**



**30 ministers**



**40 speakers  
41 panelists**



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**170 journalists  
photographers, analysts**



**20 booths in exhibition area**







Wiri photo

*Above:  
Speakers  
and panelists  
take time out  
for a group  
photograph.*

*L and r: The  
inside and  
outside of  
the historic  
Hofburg  
Palace in  
Vienna,  
venue to  
the 7<sup>th</sup> OPEC  
International  
Seminar.*



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OPEC bulletin 6-7/18



# Introductory session

## Sustainable global energy future



### **Keynote speakers:**

*HRH Prince Abdulaziz Bin Salman Bin Abdulaziz Al Saud, Minister of State for Energy Affairs, Kingdom of Saudi Arabia*

*Alexey Texler, First Deputy Minister of Energy, The Russian Federation*

*Mohammed bin Hamad Al-Rumhy, Minister of Oil and Gas, Sultanate of Oman*

*Shri Dharmendra Pradhan, Minister of Petroleum and Natural Gas, India*

*Sultan Ahmed Al Jaber, Minister of State, Group CEO of the Abu Dhabi National Oil Company (ADNOC), United Arab Emirates*

### **Panelists:**

*Daniel Yergin, Vice Chairman, IHS Markit*

*Bob Dudley, Group Chief Executive, BP*

*Patrick Pouyanné, Chairman and CEO, Total*

*Claudio Descalzi, CEO, Eni*

*Scott D Sheffield, Executive Chairman of the Board, Pioneer Natural Resources*

### **Moderator:**

*John Defterios, CNN*



The introductory session of the 7<sup>th</sup> OPEC International Seminar — *Sustainable global energy future* — saw keynote speakers and panelists discuss a number of key questions, including:

- What is the role of oil in a sustainable global energy future?
- How can the importance of oil in a sustainable energy future be assessed?
- How can oil contribute to providing accessible and affordable energy?
- What are the major risks and uncertainties on the path of sustainable energy development?
- What is the role of governments in this respect, including policies that may increase energy efficiency or subsidy removal in the case of inefficient energy supplies?
- How can innovative technological approaches in the oil and gas sector help reduce greenhouse gas (GHG) emissions?
- What is the role of organizations like OPEC in supporting a sustainable energy future?

### HRH Prince Abdulaziz Bin Salman Bin Abdulaziz Al Saud

*Minister of State for Energy Affairs, Kingdom of Saudi Arabia*

The session's first keynote speaker was HRH Prince Abdulaziz Bin Salman Bin Abdulaziz Al Saud, Minister of State for Energy Affairs, Kingdom of Saudi Arabia. He began by congratulating the OPEC Secretariat and the organizers for putting together this impressive Seminar. He also added that this is a proud moment for OPEC, and other participating countries in the 'Declaration of Cooperation'.

In this regard, Prince Abdulaziz said that "no one could have thought one and half years ago that we could have achieved what we have accomplished today. "Our challenge is now to continue and be more successful and more inclusive, bringing more producers together, and having more understanding of the consumer countries."

He added that what this group does need is to be

careful, sensible, supportive, and attentive to world economic growth, sustainable development, and the industry, in meeting future challenges.

In looking ahead, Prince Abdulaziz said that in spite of the world moving rapidly into alternatives, "an objective assessment underscores that oil and gas will continue to remain a fundamental component of any sustainable energy future."

The future energy mix should be constructed upon a wide range of energy sources, he stated, and with all energies able to compete on their own merits in a free market. He noted that "misguided energy policies", which continue to discourage investments in oil and gas, could sow the seeds for the next energy crisis.

He stressed that "this is especially a concern for developing countries," which was recently highlighted at the 16<sup>th</sup> International Energy Forum (IEF) Ministerial meeting in New Delhi. He said that representatives from those countries stressed the importance of the security of energy, in particular, access to affordable and modern forms of energy.

The resources are available, he said, but it is vital that we have sound energy policies for attracting the needed capital and investments. "As the IEF actively promotes,



HRH Prince Abdulaziz Bin Salman Bin Abdulaziz Al Saud.

it is only sound energy policies and broader cooperation among the producing and consumer countries in an interdependent and interconnected world that can concurrently achieve energy, economic, and environmental security.”

Prince Abdulaziz also emphasized the huge technology-driven opportunities to achieve more efficient and the cleaner production and consumption of oil and gas. This will not only enable them to continue to fuel global prosperity, he said, “but also lighten the environmental and carbon footprint, which is an equally high priority for us all.”

He also broached current oil market fundamentals, which remain healthy, as well as the anxieties of some consuming nations about a potential supply shortfall. He said our common objective and shared task is to ensure no supply shortage at any point in time, as well as avoid any supply glut or stock overhang.

“Such a rational policy”, he said, “is particularly important so as not to undermine the continuity in investments ... and avoid market volatility, from both extremes, that is harmful to the global economy, and energy security.”

He added that “Saudi Arabia is committed to a balanced market that is conducive to robust global economic growth, prosperity to both producers and consumers, as well as the industry.”



Alexey Texler.

In concluding, Prince Abdulaziz said that oil “will continue to be the bedrock of a sustainable energy future.” He said that from “our side”, we will do our utmost, together with a strong bond of cooperation with other producing countries, to contribute to market stability and to ensure there is no oil supply shortage despite an environment that has a multitude of complex, and sometimes contradictory factors affecting the market.

Moreover, he said, we will also look to further enhance “our frank and fruitful dialogue with consuming countries about a sustainable energy future.”

### Alexey Texler

*First Deputy Minister of Energy, The Russian Federation*

Alexey Texler, First Deputy Minister of Energy, Russian Federation, underscored the importance of sustainable energy. In this regard, he also added that “it is essential to address the topical issues of energy poverty, electricity supply, the uneven distribution of resources, and the varied level of economic development of countries, which are also directly linked to the sustainable development agenda of the United Nations.”

He stressed that this underlines the fact that “deeper dialogue and international cooperation in all fields of both conventional and renewable energy sources, particularly in a de-politicized environment,” is vital.

Texler said that Russia is ready and willing to engage in “fair and even competition in all markets, which would require moving away the excessive barriers to energy,” as well as any “artificial distortions in the energy balance.”

In addressing energy security and energy poverty, Texler said that “the role of cooperation” should not be undermined given the objective of sustainable development in energy markets. He stressed that “this has been demonstrated in the effective and responsible work of the ‘Declaration of Cooperation’.”

### Shri Dharmendra Pradhan

*Minister of Petroleum and Natural Gas, India*

Shri Dharmendra Pradhan, Minister of Petroleum and Natural Gas, India, said that India’s Prime Minister,



Narendra Modi, “has set four major pillars for the country’s energy policy: energy access, energy efficiency, energy sustainability, and energy security.” He added that “energy sustainability has to be seen in tandem with other the three pillars for a stable energy future.”

In talking about India’s role, Pradhan said that the country has “demonstrated a very strong commitment to the Paris Agreement, has taken the lead in promoting solar, has introduced Euro-6 petroleum products in New Delhi and will migrate it to the whole country by April 2020 at the latest.”

Moreover, he said, promoting biofuels, energy efficiency, and moving to a gas-based economy are also priorities.

Pradhan stated that in a high-level forum such as the OPEC Seminar, and in the presence of many ministers, it was “appropriate to discuss sustainable pricing.” Oil and gas are commodities of trade, he said, but also the “basics of necessity.”

He underscored the importance of “responsible pricing, one that balances the interests of both consumers and producers.” He said India is not in favour of prices that are too low or too high, and highlighted the impact of volatility on countries like India. He added that OPEC has a responsibility to help maintain the supply and demand equilibrium.

In concluding, he quoted Mahatma Gandhi: “*Art is to provide enough to satisfy everybody’s need, but not everyman’s greed.*”

### **Sultan Ahmed Al Jaber**

*United Arab Emirates Minister of State, Group CEO, Abu Dhabi National Oil Company*

Sultan Ahmed Al Jaber, UAE Minister of State, Group CEO, Abu Dhabi National Oil Company (ADNOC), said that the OPEC Seminar is an ideal platform for both oil producing and consuming nations to engage with each other, as well as with critical stakeholders on key issues impacting global energy markets.

He stated that this year’s theme — ‘Cooperation for a sustainable future’ — is “more timely, more fitting, and more appropriate than ever!”

“It was the unprecedented level of cooperation between OPEC and non-OPEC producers that has helped to rebalance the market and stabilize prices after a period of significant uncertainty. This is a success story based on trust and collaboration that is worth commending and acknowledging.”

In looking ahead, he stated that the economic outlook gives us reasons for real optimism. “Economic



*Shri Dharmendra Pradhan.*



*Sultan Ahmed Al Jaber.*

growth in every region reinforces demand for every product along the extended hydrocarbon value chain.”

From the perspective of ADNOC, he said that based on the experience of the recent past, “we have learnt what a modern, progressive, integrated oil company should look like.

“We are embedding real and true efficiency, commerciality and innovation into every aspect of our business. We are focusing on optimizing costs and resources, as well as searching for more value creation.”

He said that only the previous month, ADNOC unveiled the centrepiece in leveraging its downstream potential, “namely our drive, alongside our partners, to invest \$45 billion into the largest integrated refining and petrochemical site in the world.” This is an action, he added, to “realign our business and operations to respond to the growth in demand for higher value products.”

Looking ahead, he said, that “our industry’s prospect, contrary to some views, is bright. We stand at an historic shift with regard to demand for our products and we are ready to capitalize on these opportunities.”

### **Mohammed bin Hamad Al-Ruhmy**

*Minister of Oil and Gas, Sultanate of Oman*

Mohammed bin Hamad Al-Ruhmy, Minister of Oil and

*Mohammed bin Hamad Al-Ruhmy.*



Gas, Sultanate of Oman, provided some brief remarks when taking his seat on the stage.

He said that although his country is not a Member of OPEC, he likes the Organization, and it is serving the interests of the industry and businesses well. Al-Ruhmy also stressed the importance of “the spirit of cooperation that is working well and we should keep it intact, referring to the ‘Declaration of Cooperation’.”

He concluded that “dialogue is a critical component in this process” and this Seminar comes at a timely moment to continue the cooperation, which embraces the critical elements of sustainability, dialogue and decisions.

### *Panelists:*



*Daniel Yergin.*

### **Daniel Yergin,**

*Vice Chairman, IHS Markit*, said that oil demand is holding up based on emerging new macroeconomic views, and “peak demand is not on the horizon.” However, he did underscore a number of uncertainties related to the global economy, including a desynchronization, possible new US Federal Reserve decisions, and turbulence around world trade that could eventually impact oil demand growth.

### **Bob Dudley,**

*Group Chief Executive, BP*, spoke about how uncertainties can impact investments. He said that “we cannot afford large uncertainties in our long-term business,”





Bob Dudley.



Claudio Descalzi.



Patrick Pouyanné.



Scott D Sheffield.

because a big increase in demand is foreseen and “we need to continue investing to match the growth for every kind of energy.”

### **Patrick Pouyanné,**

*Chairman and CEO, Total*, said that it is “not good news to have tariffs and barriers that impact the oil market through the cost chain.” He stressed that we also need to address volatility, referencing such issues as geopolitics and shale coming again with a new surge, stating that “one per cent of market imbalance on the supply side is sufficient to create a volatility of 30 per cent.” He also talked about the importance of sustainability and the environment and said that Total is allocating capital to such areas as natural gas, renewables, and new energy businesses.

### **Claudio Descalzi,**

*CEO, Eni*, said that the “geopolitical dimension is there, we need to live with it.” Nevertheless, investments need to be made, he said, underlining that the industry is also constantly fighting to recover from decline rates. He underscored that stability is needed and the fact that “we cannot survive with \$40/barrel.”

### **Scott D Sheffield,**

*Executive Chairman of the Board, Pioneer Natural Resources*, said that US production continues to grow and the Permian is a growth centre, but highlighted that “we are facing infrastructure bottlenecks.” He said he remained a firm believer that the US “can reach 15m b/d in six-to-seven years time.”

# Session I

## Energy cooperation



### **Keynote speakers:**

*Bijan Namdar Zanganeh, Minister of Petroleum, Islamic Republic of Iran*

*Emmanuel Ibe Kachikwu, Minister of State for Petroleum Resources, Nigeria*

*Li Ye, Executive Director General for Regulation, National Energy Administration, China*

*Sun Xiansheng, Secretary General, International Energy Forum (IEF)*

### **Panelists:**

*Mussabbeh Al Kaabi, CEO, Mubadala Petroleum & Petrochemicals*

*Edward L. Morse, Managing Director and Global Head, Commodities Research, Citigroup*

*Sarah Ladislav, Director and Senior Fellow, Energy and National Security Programme, CSIS*

*Helima Croft, Global Head of Commodity Strategy, RBC Capital Markets*

### **Moderator:**

*Eithne Treanor, E Treanor Media*



Session I of the 7<sup>th</sup> OPEC International Seminar focused on the importance of energy cooperation among all stakeholders, and with a specific reference to the historic ‘Declaration of Cooperation’. This was noted by Eithne Treanor, E Treanor Media in her introduction to the session, as well as in an opening video that referenced this, the producer-consumer dialogue, and the value of all this cooperation in helping achieve a sustainable market stability.

### **Bijan Namdar Zanganeh**

*Minister of Petroleum, Islamic Republic of Iran*

Bijan Namdar Zanganeh, Minister of Petroleum, Islamic Republic of Iran, began by thanking the organizers for the invitation to speak, and said that the Seminar is a very important platform to deal with the latest challenges the oil market faces.

He noted that “as a founder Member of OPEC and throughout its history, Iran has always believed in, and committed itself to, securing the interests of both consuming and producing nations, as well as promoting oil market stability. This requires cooperation among all market stakeholders, including producers and consumers.”

Zanganeh said that the ‘Declaration of Cooperation’ had brought stability to the oil market and enabled global economic growth. He also added that the price of oil is right when it supports three fundamental elements: “ensuring future investment in oil producing nations, ensuring the timely and sufficient supply of oil to meet demand, and ensuring sustained and acceptable economic growth for the world economy.”

Within this context he said, “I have voiced publicly on many occasions that Iran is against high oil prices, my objection stems from the deeply held belief that high oil prices benefit neither the producers nor the consumers in the medium- or long-term.”

He stressed that the reason for the recent rise in the oil price is not due to a lack of balance between supply

and demand, but due to political tensions and the imposition of unilateral sanctions against two OPEC Founding Members.

He added that “in our view, politicizing the oil market is negative for market stability and its stakeholders.”

He concluded by saying that as has been shown through the ‘Declaration of Cooperation’, “OPEC has set an excellent example in demonstrating the power of a win-win cooperation that has benefited consumers and producers, promoted market stability, energy security and world economic growth.”



*Bijan Namdar Zanganeh.*

### **Emmanuel Ibe Kachikwu**

*Minister of State for Petroleum Resources, Nigeria*

Emmanuel Ibe Kachikwu, Minister of State for Petroleum Resources, Nigeria, began by offering thanks to the OPEC Secretary General “who has done a lot since his appointment to not only stabilize the market, but also

to begin a major push for energy cooperation we see happening today.”

In this regard, he also thanked the Ministers of Qatar, Saudi Arabia and recently the United Arab Emirates (the OPEC Conference Presidents in 2016, 2017 and 2018, respectively), who have been consistent in the need to engage with all industry stakeholders.

Kachikwu’s main focus was on the theme of energy sustainability and energy cooperation, and how this relates to developing countries, in particular.

Historically, he said developing countries have often been left behind, as the industrialised world has transitioned through the various energies, as well as in terms of technology. He also added that “we depend really on technology of other countries and the fact is costs to produce oil are spiralling out of control and we are not able to contain these costs even in our countries.”

In many ways, he said, “cooperation for us and sustainability is also about humanity.” He stressed that “humanity must come into play in some of the decisions that we make.”

He said it is important, for example, “to get oil

what damage has been done everywhere “and how little prepared we are for life after oil.” In this regard, he said it is vital that oil companies cooperate with these communities.

He added that countries must look at what they can do to ensure that those who have the assets and resources are better taken care of, and investors need to look at what sort of return makes it worth their while to make these investments.

Kachikwu said that while “we are focused on the short-term concerns of cooperation ... we must also focus on cooperation to look at long-term challenges for developing countries,” and the owners of these resources who have no access to the benefits coming from their oil and who may not even have access to electricity.

### Li Ye

*Executive Director General for Regulation, National Energy Administration, China*

Li Ye, Executive Director General for Regulation, National Energy Administration (NEA), China began by saying that



*Emmanuel Ibe Kachikwu.*



*Li Ye.*

companies to take very seriously their social responsibilities.” He added that when he flies over the Niger Delta and all the oil producing terrains, he can see

on behalf of the NEA he would like to thank the OPEC Secretariat for this excellent event. He said he believed the Seminar “will promote exchange and cooperation in



the global oil sector and have a positive and profound impact on this sector.”

Ye said that “a global consensus has emerged about the need to develop clean energy.” He stressed that this was a top priority for China as it “strives to build a clean, low carbon, safe and efficient energy system. We have made a promise that by 2020, non-fossil fuels will represent 15 per cent and by 2030 it will be 20 per cent.”

He noted, however, that the path to clean energy is subject to the influence of multiple factors including population growth, population structural changes, economic growth, policy changes, technological advances and fluctuations in energy prices.

In terms of oil and gas, he stated that they will remain indispensable in the global energy mix, with oil and gas combined still expected to be over 50 per cent by 2040.

Therefore, he said, “a stable and sustainable oil market is a common wish of the international community and serves the interests of the international community.”

Ye also highlighted that China “is promoting global oil cooperation and expanding its participation.” In particular, he noted the energy security strategy presented by President Xi Jinping at the G20 summit in 2014, which revealed four energy-related revolutions, one of them being cooperation.

He stressed that China is willing to work with OPEC to contribute to the stability and healthy development of commodity markets. In this regard, he noted that “China is one of the largest energy consumers and producers.”

Ye said that today China is becoming an integral part of the world and increasing its exchanges with other nations. He emphasized that President Xi Jinping has said that “we should build a community of common destiny for mankind, through extensive consultations, joint contributions and shared benefits.”

## Sun Xiansheng

*Secretary General, International Energy Forum*

Sun Xiansheng, Secretary General, International Energy Forum (IEF), said it was an honour to join such distinguished company and thanked the OPEC Secretary General for the opportunity to provide a perspective on international energy cooperation under the IEF.

Sun said that there are many challenges, as well as opportunities, in the energy market that can benefit from being shared. He added that “the value of dialogue and cooperation has never been higher. No single stakeholder or technology can go it alone.”

He emphasized that the IEF provides an open platform to facilitate this cooperation through a vibrant and data-driven dialogue to enable this inclusive cooperation. He specifically referenced the large gathering of producer and consumer countries at the 16<sup>th</sup> IEF Ministerial in April in New Delhi.

“The high-level of attendance (at the 16<sup>th</sup> IEF Ministerial) underscores how energy dialogue and cooperation is a growing necessity in today’s changing policy and market environment,” he noted.

In looking ahead, he said that “we see new areas for global cooperation through dialogue and information sharing. This includes enhancing data transparency in non-OECD regions, synergies between fossil fuel and renewable sectors and energy efficiency gains in fossil fuel supply chains, as well as in improving energy access and affordability.”

Sun also updated delegates on the IEF’s collaboration in respect to its work programme, including the pro-



*Sun Xiansheng.*

gress in JODI, as well as new initiatives such as energy efficiency knowledge sharing and energy access and the rational engagement by the IEF with other organizations.

One example he referenced was that the IEF, in partnership with JODI partner organizations, continues to coordinate joint efforts to improve completeness, reliability and regularity of data submissions, including making full use of new digitalization offers.

He also highlighted that the IEF encourages shareholders to put efforts into accelerating energy efficiency gains across the whole energy spectrum, and the organization keeps energy access and affordability high on the biannual IEF energy agenda. He said the IEF has organized a symposium in partnership with OFID in Tunisia and “there is a clear need for greater engagement and transparency in this area.”

In concluding, he said there is evidently a requirement for strengthening cooperation and thanked everyone for their continued support of JODI and the IEF consumer-producer dialogue.

### Panelists:

Before the start of the panel session, a poll was taken among the audience which asked: “Has the ‘Declaration of Cooperation’ made a difference for producers and

consumers?” An overwhelming response said yes; indeed 83.7 per cent of those respondents were of this opinion.

### Helima Croft,

*Global Head of Commodity Strategy, RBC Capital Markets*, was the first to speak on the panel and she was asked how important the ‘Declaration of Cooperation’ has been to the investment community over the past 18 months.

She stated that she thought that it has been absolutely fundamental in improving the situation of the markets. “But I think what is also really important is that it has changed the perception of OPEC within the financial community.

“I would say three years ago today, when we had the last seminar, if you would have asked people if they would have thought they would see 24 countries join together to help stabilize the oil market I think an absolute majority would have said no.”

She said that there has been “a lot more transparency in how OPEC as an organization communicated to financial markets ... and this has been tremendously helpful.”



Helima Croft.



Mussabbeh Al Kaabi.



### Mussabbeh Al Kaabi,

CEO, Mubadala Petroleum & Petrochemicals, said that as an investor he would like to say “that any volatility causes uncertainty.” In this regard, he said he had noted in the morning session that there was a consensus that oil demand will keep growing to 2030–40, but with “big volatility”, he saw question marks around meeting future oil demand.

He said that one of the key pillars that Mubadala values is “partnership” in all sectors. “We are a \$215 billion investment fund that is investing not only in oil and gas, but we deal with host governments, IOCs, NOCs, and investment institutions ... partnership, collaboration is part of our day-to-day business.”

### Sarah Ladislav,

Director and Senior Fellow, Energy and National Security Programme, CSIS, said that there is a lot of competing priorities to manage in the energy sector, which is why she values the Seminar’s theme of cooperation.

She stressed that it is evidently one of the OPEC Secretary General’s priorities, and this “really needs to be deepened and expanded, not just to questions of market stability, but to the longer-term transition issues,

which we are going to have to be able to deal with as a society, and within all our energy systems, to really make sure we can navigate those changes.”

### Edward L Morse,

Managing Director and Global Head, Commodities Research, Citigroup, said that the leadership of the OPEC and non-OPEC countries in the ‘Declaration of Cooperation’ have done a remarkable job when it comes to the positive elements of cooperation.

He noted, however, that he thinks that “the most elusive element of what they have been aiming for is stability, and we see it in the numbers.” He highlighted that every year since 2014, the difference between the high and low oil price has been \$20/b or more, and this year so far it has been \$19/b.

He added that it is challenging because of the financial set of forces at work. He stressed that producers need to evolve a better understanding of energy trading investors, who can be “very fickle”.

Towards the end of the panel session, delegates were asked a second question: “Has OPEC become more inclusive in recent years?” Of those who voted, 100 per cent said yes.



Sarah Ladislav.



Edward L Morse.



## Lunch session

# Global energy and sustainability: today and tomorrow



### **Remarks:**

*Emmanuel Ibe Kachikwu, Minister of State for Petroleum Resources, Nigeria*

### **Speech:**

*Fatih Birol, Executive Director, International Energy Agency (IEA)*

### **Moderator:**

*John Deferios, CNN*



## Emmanuel Ibe Kachikwu

Emmanuel Ibe Kachikwu, Minister of State for Petroleum Resources, Nigeria, opened the lunch by welcoming all attendees, speaking warmly of the successful cooperation between OPEC and non-OPEC producing countries through the landmark 'Declaration of Cooperation'.

He also thanked the OPEC Secretariat, Member Countries' and sponsors for hosting the successful 7<sup>th</sup> OPEC International Seminar, which had brought together participants from all over the world.

## Fatih Birol

Fatih Birol, Executive Director of the IEA, gave the luncheon address and highlighted a number of key points across the energy spectrum. These included:

- Global oil demand is set to rise by 1.4m b/d in 2019, with China and India accounting for almost half of the increase.
- Petrochemicals are becoming an increasingly important driver for oil demand.
- Electric car sales continue to break records. The number of passenger electric cars on the road passed 3 million in 2017, yet they still represent just one per cent of global car sales.



Fatih Birol, Executive Director, International Energy Agency (IEA).



Emmanuel Ibe Kachikwu,  
Minister of State for  
Petroleum Resources,  
Nigeria.

- Prices and pricing reforms have cut the global subsidy bill. A window for subsidy reform since 2014 has made global oil demand more price-sensitive, but reform momentum is now coming under pressure with the recent rise in prices.
- The oil industry needs to replace one North Sea each year. Ageing oil fields lose more than 3m b/d per year despite slowing decline rates.
- Industry and buildings have taken over from the power sector as the drivers of gas demand.
- China accounted for 30 per cent of the increase in global gas demand in 2017.
- Renewables accounted for almost half of the growth in electricity generation in 2017 and are set to meet a higher share of the growth going forward.
- Cooling is driving electricity demand growth — today, 90 per cent of households in the US and Japan have air conditioners *versus* 32 per cent in developing Asia. Electricity demand for air conditioning could more than triple by 2050.
- Carbon capture, utilization and storage (CCUS) is crucial for industry. CCUS is one of few solutions to cut emissions in industry — 450 Mt CO<sub>2</sub> can be abated per year for under \$40/tonne, which is well in excess of the emissions of Australia.

## Session II

# Technology breakthroughs



### *Panelists:*

*Daniel Yergin, Vice Chairman, IHS Markit*

*Lorenzo Simonelli, CEO Baker Hughes, a GE Company*

*Pacelli Zitha, Faculty of Civil Engineering and Geosciences, Delft University of Technology*

*Ihsan Ismaeel Al-Saade, Basrah Oil Company, Iraq*

*Al Cook, Executive Vice President Equinor ASA*

*Duco Drenth, Director New Technologies, Dietsman*

### *Moderator:*

*Eithne Treanor, E Treanor Media*



Panelists discussed the transformative effect which technology has had on the oil industry.

### Panelists:

#### **Daniel Yergin,**

*Vice Chairman, IHS Markit*, noted that whenever there has been talk of peak oil on the horizon, technological innovation has come along, to offset such a trend. He also said, “Alan Greenspan wrote a book on the history of capitalism, but this could have been called the history of innovation and this is very much the case with the oil industry.”

#### **Lorenzo Simonelli,**

*CEO Baker Hughes, a GE Company*, stressed that there is a huge opportunity for greater technology migration in the industry. However, the pace of technological migration has been generally slow. If the industry does not accelerate in this regard, there is a danger of being left behind.

#### **Duco Drenth,**

*Director, New Technologies, Dietsmann*, argued that a lot was going on behind the scenes with initiatives such as robot technologies inspecting vessels and tanks; the creation of smart shoes and gloves; and digitization.

#### **Ihsan Ismaeel Al-Saade,**

*Director General, Basrah Oil Company, Iraq*, provided an overview of technological innovation that would enhance production and keep costs as low as possible in the Iraqi oil sector. This has led to a large investment in research. He also described national policies which Iraq is taking to fulfil its commitments under the Paris Agreement. Iraq has been at the forefront of action aimed to reduce flaring.

#### **Al Cook,**

*Executive Vice President, Equinor ASA*, argued that the



Daniel Yergin.



Lorenzo Simonelli.

industry must look to the past to predict what is in the future. In the areas where his company operates, mainly in the North Sea, conditions are extremely harsh. He highlighted that technological innovation allowed Equinor to plug in to abandoned wells, thereby reducing costs by 25 per cent. The importance of technological innovation as being something practical was also stressed by Cook.

**Pancelli Zitha,**

*Faculty of Civil Engineering and Geosciences, Delft University of Technology*, underscored the importance of the great theme running throughout the Seminar: cooperation, and all stakeholders working together to share best practices. He stressed that CO<sub>2</sub> emissions must be viewed as an opportunity rather than a threat, in particular, with regard to ways of reusing CO<sub>2</sub> to produce new chemicals.

**Further discussions**

The ‘Shale Revolution’ was described as one of the clearest manifestations of such a recent transformation in the industry; however, it was noted that this, in fact, took a long time to transpire. Fracking as a drilling method had been considered as early as the 1970s, yet it took several decades before the technology had its significant impact on the industry.

Discussion turned to the pace of application of new technologies and whether National Oil Companies (NOCs) have succeeded in ensuring this happens quickly enough. It was noted that some NOCs are at the forefront of applying new technologies.

Carbon Capture and Storage (CCS) was discussed and what measures can be taken to accelerate carbon utilization. Panelists stressed that although carbon utilization technology exists, this can be delayed by bureaucratic process, policy misalignment and the fact that application of the technology may not necessarily be economic. Securing adequate financing remains a

challenge for the development of CCS. However, technology was recognized as a key means of achieving targets under the Paris Agreement.

During the discussion, a poll was taken among the audience which asked: “Is the oil industry investing enough in new technology which will support a cleaner environment?” An overwhelming response said no; indeed 80 per cent of those respondents were of this opinion.

Al Cook argued that this was a result that needed to change. He did offer a note of optimism, as there is an increasingly economic drive for cleaner fuels. Pacelli Zitha said that this reflected the reality of the situation and that there was a need for more structured investment. Lorenzo



*Duco Drenth.*



*Al Cook.*



Simonelli said that there needs to be a marriage of capabilities from productivity with the Paris Agreement. It was heavily stressed that the industry should focus on the outcome that it is seeking, namely, becoming a productive eco-friendly industry.

The importance of using technology to improve health and safety standards in the industry was a major topic of discussion. Many employees in the industry work in extremely adverse conditions, indeed, in some of the most remote places on earth. Often, they risk their lives in trying to extract oil. This drives many companies to invest in technology, especially with regard to robotics.

A vital component of technological innovation, which resonated strongly with the theme of the 7<sup>th</sup> International

OPEC Seminar, was collaboration. A collaborative approach across the entire supply chain in advancing technological innovation and sharing best practices was stressed.

It was also noted that technology is very important given some of the image problems associated with the industry. In some ways, the industry has lost control of the narrative around it. Other voices in the global discussion have successfully depicted the industry as carbon intensive and environmentally unfriendly. Technology can be used as a means of improving public perceptions of petroleum and encourage young people to consider careers in the energy sector. It was stressed that the narrative should be about the many good things the petroleum industry brings to society.

Another poll was taken among the audience which asked: "Is there sufficient investment in new technology which promotes the use of oil?" 60 per cent of respondents thought this was not the case. The panelists reacted by saying that this requires collaboration between technological providers and frontline users in order to be resolved.

Panelists concluded by emphasizing the need for undertaking the right research, being bold in its application and spreading it geographically. Researchers need to be assured about continuity in their careers. Additionally, it is pivotal that there is stability in the market to attract adequate investments and perhaps the 'Declaration of Cooperation' model can be applied for sharing best practices on environmental innovation.



*Ihsan Ismaeel Al-Saade.*



*Pancelli Zitha.*



# Special Session

## Global oil market balance metrics



### Opening remarks:

Mohammad Sanusi Barkindo, OPEC Secretary General

### Panelists:

Aziz Yahyai, Research Division, OPEC

Adam Sieminski, President, King Abdullah Petroleum Studies and Research Centre (KAPSARC)

Bassam Fattouh, Director, Oxford Institute for Energy Studies

Amrita Sen, Chief Oil Analyst, Energy Aspects Ltd

Edward L Morse, Managing Director and Global Head, Commodities Research, Citigroup

Johannes Benigni, JBC Energy

Roger Diwan, Vice President, IHS Markit

Douglas Thyne, Research Director for Oil Supply, Wood Mackenzie

### Moderator:

Harry Tchilinguirian, Paribas



Mohammad Sanusi Barkindo.



OPEC Secretary General, Mohammad Sanusi Barkindo, opened the session and noted that the initial focus of the voluntary productions adjustments in the ‘Declaration of Cooperation’ was the OECD commercial stock overhang in terms of the five-year average, and the need to bring this down to help return balance to the market. To date, he added, that there is no doubt that this has been a relative success.

He noted, however, that it is also important to ensure that the hard won gains through the rebalancing process are sustained. To put it simply, he said, to help evolve stability on a sustainable basis.

He said it was Arthur Conan Doyle, the author of Sherlock Holmes, who once wrote: “It is a capital mistake to theorize before one has data.” Thus, he said, it was important to explore the possibility of additional metrics to help monitor and measure market stability going forward, which was the focus of this session.

He then introduced the moderator Harry Tchilinguirian from Paribas, who he noted had been a regular attendee and contributor at our annual IEA-IEF-OPEC Workshop on the *Interactions between physical and financial energy markets*.

## No ‘silver bullet’

Tchilinguirian stated that there is no ‘silver bullet’ to gauge the state of the market, and that making assumptions on supply/demand were fraught with uncertainties. He said it was vital to look at a variety of metrics, specifically to get a forward looking view.

He then introduced the panelists:

Aziz Yahyai, Research Division, OPEC; Adam Sieminski, President, King Abdullah Petroleum Studies and Research Center (KAPSARC); Bassam Fattouh, Director, Oxford Institute for Energy Studies; Amrita Sen, Chief Oil Analyst, Energy Aspects Ltd; Edward L Morse, Managing Director and Global Head, Commodities Research, Citigroup; Johannes Benigni, JBC Energy; Roger Diwan, Vice President, IHS Markit; Douglas Thyne, Research Director for Oil Supply, Wood Mackenzie

## Overview of talks

Yahyai helped set the scene by outlining a number of potential metrics (beyond just the OECD



*Harry Tchilinguirian (l), Moderator, with Ayed S Al-Qahtani (r), Director, OPEC Research Division, who thanked the moderator and panelists for taking time out to participate in the session.*

commercial stocks five-year average) for measuring market stability over various timeframes. This included various measures of oil inventories, the supply and demand balance, market structure, trading activity, global investment and financial performance indicators.

The other seven panelists then provided their thoughts and opinions. The main highlights and takeaways from these were:

- The oil market, with its evolving complexity and interconnected global character will continue to be bound large uncertainties.
- Better gauging of the status of, as well as the prospects for the oil supply and demand balance, warrants a focus on the continuous improvements of data, in-depth and granular analysis, and developing more forward-looking metrics with a clear defined methodology. It was noted by all panelists that there is no perfect indicator, and exploring a range of metrics to analyze sustainable market stability is required.
- There is a common view that metrics on oil stocks currently used in addressing the oil market balance, which is based on the five-year moving average on commercial crude oil and products exports, could be further improved by:
  - » Expanding timely and reliable data for the major consuming centres outside of the OECD (eg, China, India), producing countries (eg, The Russian Federation, OPEC Member Countries), and trading, refining hubs (eg, Singapore, Rotterdam, Caribbean, Dubai);

- » Tracking the co-movement between market balance and global stock changes;
- » Looking at the 'velocity' of inventories in terms of stocks and flows beyond 'net change' analysis to better capture and anticipate the surplus and deficit of supply and demand;
- » Better utilizing the forward cover analysis with reference to both oil demand and refinery intake; and
- » Taking into consideration the so-called 'dead oil' (eg, tank bottoms, pipelines, new and expanded refinery capacities.)
- The following additional metrics — with varying degree of importance — could enhance and contribute to the understanding of the market balance, thus market stability beyond the short-term:
  - » The structure of the price curve and the influencing role of different market participants and their position taken in trading activities;
  - » Investments across the supply chain, through a more granular approach, in terms of differentiating the short- and long-term cycle upstream investments in various regions, crude oil price, technology, and cost efficiency impacts on investment levels and timing;
  - » Financial strategy and performance of different types of oil companies in terms of their investment portfolio (eg composition of the energy mix, cash flow, debt-to-equity ratio, improved environmental footprint), and better tracking of Final Investment Decisions (FIDs);
  - » The refinery structure and ability to adopt and



Aziz Yahyai.



Adam Sieminski.



Bassam Fattouh.



Amrita Sen.



absorb to changing volumes (eg crude and non-crude feedstocks) and the quality of crude oil in accommodating more stringent products demand slate;

- » Improving the data (coverage, quality), assumptions, and analytical depth in decline rates with a bottom-up approach to better gauge the reserve replacement and growth in supply; and
- » The availability of spare capacity (eg production, Strategic Petroleum Reserves (SPR)), built-in flexibility and the conditions of its use.

## Variety of metrics required

The consensus view was that a variety of metrics are required, which was summed up in the concluding remarks.

Tchilinguirian compared what lay before the market, as well as OPEC and non-OPEC producers, to being a doctor examining a patient — you do not just take their temperature, you need to take their pulse, and other indicators to make an informed decision/diagnosis.

Ayed S Al-Qahtani, Director, OPEC Research Division, standing in for the OPEC Secretary General, noted that the session had shown that not one metric can be viewed as complete or fully transparent, with a variety of indicators required.

He added that while the panelists had shown the topic to be complex, he felt that they had left everyone wiser on the topic. He thanked the moderator and panelists for taking time out from their busy schedules to participate in the session.



*Edward L. Morse.*



*Johannes Benigni.*



*Roger Diwan.*



*Douglas Thyne.*

## Session III

# Energy transition



### **Keynote speakers:**

*Jabbar Ali Hussein Al-luiebi, Minister of Oil, Iraq*

*Karin Kneissl, Minister for Europe, Integration and Foreign Affairs, Republic of Austria*

*Carlos E Pérez, Minister of Hydrocarbons, Ecuador*

*Pascal Houangnoi Ambouroue, Minister of Petroleum and Hydrocarbons, Gabon*

*Suleiman Jasir Al-Herbish, Director General, OFID*

*Gabriel Mbaga Obiang Lima, Minister of Industry, Mines & Energy, Equatorial Guinea*

*UN represented by Patricia Espinosa, Executive Secretary, UNFCCC*

*Yury Sentyurin, Secretary General, GECF*

*Václav Smil, Distinguished Professor Emeritus, University of Manitoba*

### **Panelists:**

*Adnan Shihab-Eldin, General Director, Kuwait Foundation for Advancement of Sciences*

*Courtney Fingar, Editor-in-Chief, fDi Magazine, Financial Times*

*Amrita Sen, Chief Oil Analyst, Energy Aspects Ltd*

*Carlos Saturnino, CEO, Sonangol*

*Megan Richards, Director of Energy Policy in DG Energy (ENER), European Commission*

*Christian Malek, Head of EMEA Oil & Gas Equity Research, Global Energy, JP Morgan Ltd*

### **Moderator:**

*Eithne Treanor, E Treanor Media*



This well-attended session covered the highly debated issue of the energy transition — a topic that has been at the top of the agendas of most leading energy industry events in the past months. The speakers and panelists provided their keen insights into the prospects of an energy industry in transition, from a carbon and fossil fuels-based economy to a lower-carbon industry with the increasing use of alternative energies.

### **Jabbar Ali Hussein Al-luiebi**

*Minister of Oil, Iraq*

Al-luiebi began his remarks by stating that the energy transition will play a crucial role in helping provide increased access to energy in developing countries.

“The most important motivation for the global energy transition is to secure energy supply, providing energy access to more than one billion people who currently lack this kind of energy,” he stated.

He moved on to underline the negative trend of decreased investment in the oil and gas industry since the price decline battered the industry in 2014. At the same time, he pointed out that investment in renewables has been on the rise, and has led to a boost in efficiency and a drop in production costs, especially in the areas of wind and solar energy. These alternative sources, he added, are becoming increasingly viable options to the

electricity sectors around the world, and could have an impact on the transportation industry in the long term.

However, looking at demographics, with the rapid population growth forecast in mind, he stressed that all energy sources will be required in the decades ahead to meet future energy needs.

“While it is essential to pay more attention to climate change and ensure the protection of the environment, fossil fuels will continue to play a key role in the energy mix, contributing between one-half to two-thirds of our energy demand,” he said. “Oil will remain the most valuable commodity in the world and will continue to be key for the transportation, petrochemical and other industries.”

### **Karin Kneissl**

*Minister for Europe, Integration and Foreign Affairs, Republic of Austria*

Kneissl opened her address by saying that the main focus of the energy transition for Austria and the European Union (EU) will be on transportation. “The energy transition will have to be handled through transportation, and in particular, the automobile industry,” she stated. “The goal is to keep the planet livable for future generations.”

She said that the industry must prepare now if it plans to meet the ambitious environmental and sustainability goals set out by the EU.



*Jabbar Ali Hussein Al-luiebi.*



*Karin Kneissl.*

“If we want to take this topic seriously, we need to plan now for long-term implementation,” she explained. “It is all about how to adapt to rising temperatures. If we want to keep the global temperature increases below two degrees, then we have to decrease energy intensity by two-thirds.”

This will be accomplished through efforts to increase efficiency and innovation, an area in which Austria is excelling.

“In Austria, 75 per cent of our electricity comes from renewables, in particular from water and wind,” she pointed out. “Our goal is to raise that to up to 100 per cent by 2030.”

Austria, she added, is fully supportive of the EU’s efforts to move to a lower carbon economy.

“Austria is fully committed to the EU’s goals of bringing about medium-term systemic change of the energy mix, including in the mobility sector.”

She did underline the fact, though, that despite the rising production of electric vehicles forecast in the years ahead, oil and gas-based fuels will continue to dominate the market to 2040 and beyond.

She concluded her remarks, stating that oil exporting countries will continue to be key players in supplying the world’s energy needs during the energy transition.

“I expect that oil exporting countries will, not least through diversification, keep their crucial position as global energy suppliers no matter the expected and necessary medium to long-term energy transition.”

### Carlos E Pérez

*Minister of Hydrocarbons, Ecuador*

Pérez began by underlining the need for adequate levels of investment to meet future demand needs. He added that this should include investment in research and development and sustainability-oriented projects, such as carbon capture and storage (CCS) to reduce CO<sub>2</sub>.

“As an industry, we have to be aware that global warming is an issue, and we need to contribute in a positive manner to reduce the acceleration of this process,” he said.

He added that the production of renewables were increasing, but would not be sufficient to meet future energy demand increases, and thus new technologies would need to be developed on a commercial scale to provide cleaner fuels.



*Carlos E Pérez.*

He said that his country was already active in transitioning to a lower-carbon intensive energy industry.

“We in Ecuador are doing our part. Over 85 per cent of our energy now is produced through hydropower, and we continue to grow power generation through this source.”

He added that Ecuador was intent on reducing and eliminating gas flaring by 2019, in order to re-use this gas to provide additional energy.

### Pascal Houangni Ambouroue

*Minister of Petroleum and Hydrocarbons, Gabon*

Ambouroue said that, in the context of the energy transition, Gabon has been very active in mobilizing efforts to address the problem of climate change.

“We in Gabon have chosen to commit to sustainable development by helping reduce greenhouse gas emissions,” he stated.

This is especially important, he added, considering the fact that Gabon is a country rich in nature and forest land, which absorbs much CO<sub>2</sub>.

The country is also prioritizing the reduction of gas flaring and efforts to boost its electricity production via hydropower.

“I would like to reassure you that Gabon is doing everything it can to ensure that it has a positive energy transition,” he concluded. “Through the various





*Pascal Houangni Ambouroue.*

mitigation measures we are taking in this regard, Gabon can contribute to helping reduce climate change.”

### **Suleiman Jasir Al-Herbish**

*Director General, OFID*

Al-Herbish outlined OFID’s many development projects being undertaken around the world to help address the dire issue of energy poverty, including the ‘Energy for the Poor’ initiative, which marks its tenth anniversary this year.



*Suleiman Jasir Al-Herbish.*

Despite the proactive measures being taken by OFID and other agencies, he said there are still today 1.1 billion people without access to electricity and around three billion who still rely on bio-mass for cooking purposes.

He added that the energy transition presents a good opportunity for all energy stakeholders to partner together and help close the gap on energy poverty and increase access to affordable energy for billions of people around the world.

“The energy transition can be about reducing carbon emissions, but it must not leave behind these billions of people who live without access to reliable, sustainable and affordable energy services,” he concluded. “It is a challenge, we believe, that can be addressed by all oil industry stakeholders, and we welcome you all to join these efforts.”

### **Gabriel Mbaga Obiang Lima**

*Minister of Industry, Mines & Energy, Equatorial Guinea*

Obiang Lima began by pointing out the positive impacts of the ‘Declaration of Cooperation’ on Equatorial Guinea’s oil industry, which had experienced a severe crisis in the wake of the oil price crash of 2014. He praised the efforts of the participating OPEC and non-OPEC countries of the Declaration that courageously came to the rescue of the industry in its hour of need.

He said Equatorial Guinea’s recent decision to join OPEC has already provided significant benefits through the positive collaboration and close communication with fellow Member Countries.

“What Equatorial Guinea has gained in two years since joining OPEC, we have not gained in 27 years of our industry,” he proclaimed. He thanked the OPEC Secretary General and the other OPEC Member Countries for supporting their decision to join the Organization.

He added that 2019 will be the ‘energy year’ of Equatorial Guinea, during which they plan to host the Summit



*Gabriel Mbaga Obiang Lima.*



*Patricia Espinosa.*

of Heads of State of Gas Exporting Countries in the capital city of Malabo, as well as a Conference of African producing countries with all the national oil companies in Africa.

He said that these events will focus on Africa, which has a bright future for oil and gas production, and is poised to see significantly increased discoveries in the years ahead.

### **Ms Patricia Espinosa**

*Executive Secretary, UNFCCC*

Espinosa underlined the important role fossil fuels have played throughout recent history.

“We recognize the central role the oil and gas industry has played — and continues to play — in the lives of people everywhere,” she stated. “It has fueled our greatest achievements and helped us surpass our greatest challenges.”

In the context of the energy transition, she said the oil and gas industry will continue to be an important player as the world seeks to mitigate climate change, the effects of which have been made evident through a series of natural disasters, including the recent cyclone that battered the Arabian Peninsula.

“It’s clear we need change,” she stated. “The Paris

Agreement represents the best way forward. It has everything we need to address climate change. The future and prosperity of your industries depend on how you embrace this transformation.”

She then outlined the current progress being made through the provisions of the Paris Agreement, but said more needs to be done to reach the goal of limiting a global temperature rise by 1.5° Celsius.

“While that progress is significant, we simply need more,” she explained. “Not just OPEC member nations, all nations. We must address climate change before our window of opportunity closes — and it is closing fast.”

She concluded by encouraging the energy industry to provide leadership in these efforts.

“And I call on you to act as catalysts for change, using your influence to boost climate ambitions under the Paris Agreement,” she said. “And never underestimate that it is entirely within our grasp to build a future that is not only clean and green, but more prosperous — in all senses of the word.”

### **Yury Sentyurin**

*Secretary General, GECF*

Sentyurin provided an overview on the important role gas will play in the energy transition.





Yury Sentyurin.



Václav Smil.

“The world needs to transform its energy systems to become cleaner, more flexible and more transparent while simultaneously promoting resiliency in energy security,” he explained. “At the GECF, we are confident believers that natural gas, being clean and abundant, reliable, affordable and accessible, will be the fuel of choice to facilitate a sustainable energy transition.”

He pointed out that natural gas should not be considered a competitor to alternative energies, but a complementary ally in the efforts to curb climate change.

He also emphasized that the share of natural gas in the energy mix was poised to increase in the years ahead.

“The share of natural gas will increase, even where aggressive policies related to carbon mitigation measures are implemented and where technological advancements support further penetration of renewables,” he said.”

He added that there are abundant natural gas reserves around the world, but investment in exploration and production will be crucial to ensure they are discovered to meet future supply.

“The GECF countries hold more than 70 per cent of total proven gas reserves,” he stated. “They have proven to be resilient and sustainable suppliers of gas to consumers worldwide and will continue to be in the coming energy transition.”

### Václav Smil

*Distinguished Professor Emeritus, University of Manitoba*

Smil, the 2015 winner of the OPEC Award for Research, outlined his viewpoints on the energy transition, in which he stated that the transition is nothing new, and indeed has been going on for a long time.

“The history of energy development is the history of energy transition,” he explained. “We always move from one source to another. The energy transition should be about reducing the carbon footprint, and that is exactly what we have been doing since about 1890. In relative terms, the average unit of energy burned or produced every year for the last 100 years has been less carbon intensive.”

He added, though, that, in absolute terms, the amount of carbon emitted has increased significantly since the 1990s, particularly due to the rapid development of the emerging economies.

He identified what he calls four pillars of carbonization that would need to be mitigated in order to curb climate change: steel, ammonia, plastics and cement. These industries all depend heavily on fossil fuels for their production processes.

These and other challenges, he concluded, would make this energy transition long and arduous.

“The future is unpredictable, but one thing we know is certain,” he proclaimed. “This energy transition will be, in many ways, like the past ones — it will be a difficult and long one, and it will unfold over decades and generations.”

### Panelists:

The energy transition theme was explored further by a diverse and esteemed panel of industry experts.

A recurring theme during the discussions centred on reinstating adequate levels of industry investment, which was identified as a key issue to be addressed for the future of the industry.

### Adnan Shihab-Eldin,

*General Director, Kuwait Foundation for Advancement of Sciences*, stressed the importance of funding innovation and research.

“For us in the oil producing countries, we have to really make sure that we invest heavily in our research institutions and in our international oil companies to make oil and gas less carbon intensive,” he stated.

### Ms Megan Richards,

*the European Commission’s Director of Energy Policy* made the point that significant steps are being made on the policy front in Europe as regards the energy transition, but the policymaking process is always slower than industry and the pace of research and development.

She also updated the panel that the European Parliament and Council had just adopted the most recent regulation on governance of the Energy Union, which includes new provisions for the energy mix. Additionally, two new directives were agreed, one on energy efficiency and another on increasing targets on renewables.

### Carlos Saturnino,

*Sonangol CEO*, when asked about his company’s priority in the context of the energy transition, said that ongoing dialogue and partnerships will be key factors.

“For a country like Angola, the top priority is to follow the trend,” he stated. “That is why the ‘Declaration of Cooperation’ will continue to be an important tool for the energy transition.”

He said the industry must be flexible in adapting to the deep changes it is experiencing.

“We need to rethink how we do business. We need



Adnan Shihab-Eldin.



Amrita Sen.

to see new energy matrices. And we need to adapt our behaviour to the new situation.”

### Ms Amrita Sen,

*Chief Oil Analyst at Energy Aspects*, mentioned that the uncertainty regarding future oil demand had resulted in a paralyzing effect on industry investment, especially as regards large-scale, long-term oil and gas projects.

“Companies don’t want to take the risk of putting money behind big projects because shareholders are not rewarding them for doing so,” she commented.

She added that in the past analysts have gotten their demand forecasts wrong before, and possibly may also be premature in their recent predictions of a potential peak in demand as well.





Megan Richards.



Carlos Saturnino.



Courtney Fingar.



Christian Malek.

### Ms Courtney Fingar,

Editor-in-Chief, *fDi Magazine*, *Financial Times*, shared her expert insights on the current status of investments in renewable energy projects.

“Since 2015, cross-border greenfield investment in renewable energy projects has actually been decreasing each year and has never come back to the peak it hit in 2008,” she said.

“However, the share of renewable energy investment within total cross-border energy investment is growing.”

She added that the highest amount of foreign direct investment (FDI) in renewable projects is actually in the US, which is home to one-third of total investment in renewables.

### Christian Malek,

Head of EMEA Oil & Gas Equity Research, *Global Energy*, *JP Morgan Ltd*, commented on what he calls the “big oil trilemma,” in which oil companies are faced with the complex task of managing long-term investment portfolios, while returning cash to ever-eager shareholders and also managing the evolving energy transition.

“These are three issues that do not necessarily work in harmony,” he said. “How they manage the energy transition will come down to capital allocation.”

He said that in the years ahead oil and gas companies will be focused on maximizing the cash flow per barrel, and will pay close attention to efficiency to ensure adequate shareholder return while also adapting to the energy transition.

## Day 2

# Global oil future challenges



### *Panelists:*

*Amin H Nasser, President and CEO, Saudi Aramco*

*John Hess, CEO, Hess Corporation*

*Andrew Gould, Former CEO, Schlumberger*

*Sergey Vakulenko, Head of Strategy and Innovations, Gazprom Neft*

*Jay R Pryor, Vice President, Business Development, Chevron*

*Jubril Adewale Tinubu, Group Chief Executive, Oando PLC*

### *Moderator:*

*John Defterios, CNN*



## Panel discussion

After a cordial welcome and introductions by Eithne Treanor, CNN's John Deferios moderated a panel of six leading experts in the global oil industry, who had the opportunity to share their unique and compelling views on the challenges the global oil industry can expect to see in the decades to come.

Chief executives of national and international oil companies shared the stage with leading figures from oil service companies to present their predications and forecasts on a range of future challenges that the global energy industry will need to address in the years ahead.

A central theme of the panel session was related to the urgent issue of investment and the need to rebuild confidence among investors for robust funding of major long-term projects to help meet rapidly rising demand needs.

### Amin H Nasser,

*Saudi Aramco President and CEO* underlined the dire need to boost substantive investment in long-cycle industry projects.

"Our investment levels at Saudi Aramco since the downturn at the end of 2014 have actually increased in both the upstream and downstream," he said. "But we have noticed that in the rest of the world there has been a large drop in investment, which could impact future supply."

He added that investments have picked up slightly in recent months, but the current levels are not adequate to ensure a level of supply that will meet the rising demand forecast while compensating for anticipated production declines in mature fields.

### John Hess,

*Hess Corporation CEO*, noted that the only area that is still seeing robust levels of investment is the US shale industry, and that this was not due to the lower oil prices, but due to support from the financial industry.

"Shale investment went up because of the financial markets," he said. "Over the last three years, \$60 billion



Amin H Nasser.



John Hess.

has been given to shale by public equity and \$20bn by private equity, and that is really what got shale back on its feet."

He added that although shale is expected to see continued growth, in the long-term, it is expected to plateau by around 2025. He also pointed out that offshore deep water production had not recovered like shale, and was struggling to get back on its feet.

The shale industry, it was noted, has been very successful in implementing technological efficiencies, enabling it to produce more barrels at the same or decreased costs. Shale, it was added, is not expected to expand significantly outside North America due to factors such as geology, infrastructure, as well as fiscal and regulatory considerations.

### Jay R Pryor,

*Vice President, Business Development, Chevron,* explained that the shale explosion had brought benefits and learnings to the entire industry.

“The real revolution in the shale business has caused all asset classes to win because it caused competition in the cost curve,” he stated. “In our portfolio, we take a bunch of horses and run them all and they have to compete with one another for the investment dollars.”

He added that this approach along with continued key technology advancements will support efforts to create much needed efficiencies in the industry going forward.

### Sergey Vakulenko,

*Head of Strategy and Innovations, Gazprom Neft,* said that the Russian oil and gas industry had weathered the recent downturn in the industry and was able to increase investment and grow production while applying hi-tech approaches similar to those used in the US shale industry.

“It is interesting that through this down-cycle, Russia was another place where growth continued and investment

did not slow down. It was a perfect storm, if you wish, after 2014,” he said. “We at Gazprom Neft, for example, were steadily growing our production from 2010 by roughly eight to nine per cent per year, and this growth continued after 2014.”

He added that the company also continued to invest in exploration and production, leveraging cutting-edge technology for increased efficiencies. This included the use of technologies widely deployed in the shale plays of North America.

“We also had the luxury of applying shale technology on more prolific reserves than in the US located in edge



Jay R Pryor.



Jubril Adewale Tinubu.



zones and lower saturation areas in the Siberian fields,” he explained.

### **Jubril Adewale Tinubu,**

*Oando CEO*, extolled the benefits of investing in Africa’s oil and gas industry.

“The good news about Africa is that it offers a fantastic, affordable and untapped resource base where the production to reserve ratio is very, very low,” he stated.

“With increased investment, Africa’s national oil companies will be able to convert these rich reserves into production.”

### **Andrew Gould,**

*former CEO of Schlumberger*, commented that international oil companies are scrutinizing investment projects more than ever and are keenly aware of the “last man standing” philosophy currently pervading industry board rooms.

“Now companies are saying ‘maybe we should go for the short-term return and sacrifice some of the ultimate recovery’,” he said.

“I think that beyond the question of demand purely, there is the question as to what extent is ‘short-termism,’ which is natural in shale, but not in conventional projects, working its way into conventional projects and thereby restricting investment and impacting future supply.”



*Sergey Vakulenko.*



*Andrew Gould.*

## **Technology and innovation**

The panel also underlined the importance of technology and innovation for the industry to remain competitive in the overall energy mix during the energy transition.

On the subject of disruptive technologies and electrification of the transport industry, it was emphasized that electric vehicles would increase substantially, but are not expected to put a dent in overall demand for oil and gas.

Finally, it was pointed out that technology costs have traditionally dropped after industry downturns, such as the one that hit the industry in 2014, and this can be expected to happen again as a positive knock-on effect for the industry in the years ahead.



## Special session Khalid A Al-Falih and Daniel Yergin



**Keynote panelists:**

*Khalid A Al-Falih, Saudi Arabia's Minister of Energy, Industry & Mineral Resources  
Daniel Yergin, Vice Chairman of IHS Markit*

**Moderator:**

*John Defterios, CNN*



In a change to the schedule of the 7<sup>th</sup> OPEC International Seminar, the organizers put together a special session on the second day, with Khalid A Al-Falih, Saudi Arabia's Minister of Energy, Industry & Mineral Resources; and Daniel Yergin, Vice Chairman of IHS Markit in conversation with Seminar moderator, John Deferios.

Defetrios began by asking Al-Falih what he has ascertained in the last two years as Minister of Energy, Industry & Mineral Resources, and the ability of OPEC to reach out to others to change the narrative and help stabilise and rebalance the oil market.

Al-Falih said that thinking on his reflections of the past two years, “what strikes me most is the great alignment, the very strong alignment, between the interests of producers and consumers. And many people underestimate just how much alignment there is, between the two.”

He added that when he came into this position, “the industry was going through one of the longest and most severe downturns in its history. It looked bleak, not only was there a supply-demand imbalance, but there was a cloudiness about the future of oil overall.”

He added that there were many questions: What is demand going to be in the long-term? What is international policy going to be in terms of energy and the environment? Would there be a massive technological revolution that would undermine the role of oil in the energy mix. And of course, he said, there were also strong international pressures to limit the use of petroleum, which was cascading into the financial industry and its willingness to finance our industry.

### Reach out to consumers

As I started reaching out to stakeholders, he said, we talked to our customers “to assess their mood and their desires.” What struck me, he continued, was that “at a



*Khalid A Al-Falih.*

time when prices were hovering between \$30 and \$40 in 2016, many consumers were actually complaining about the state of the oil industry.

“They were calling out for action, privately, but very loudly. Industrial economies that produce zero oil were saying prices were too low, demand for industrial goods was almost non-existent ... and at the same time the macroeconomic impact of this downturn was hurting the global economy.”

He recalled that at the time there were fears of deflation, negative interest rates and the spiral effect that the downturn was having, beyond petroleum.

### OPEC and non-OPEC action

“There was a call for action,” he said. “We met in Algiers in September 2016,” on the sidelines of the International Energy Forum (IEF) Ministerial meeting. In Algiers, he added, “we had ministers from 60 plus nations, most

of them non-producers, and most of them wanted OPEC and other producers to take action.”

It was here where OPEC took its first steps towards what would become the landmark ‘Declaration of Cooperation’ with non-OPEC producers in December 2016. “In Algiers we laid out the strategy that if we were joined by a sufficient number of non-OPEC producers, we will bring stability back to the market,” he said.

Al-Falih said it seems like yesterday, but added that the 18 months since the end of 2016 have at times been difficult. There were ups and downs, he said “because the market does not always respond to our expectations.”

He stressed, however, that through it all the 24 countries in the ‘Declaration of Cooperation’ have been very solid in their cohesive action. He thanked all his colleagues for their contributions, and added that “I just think we need to stay together and keep doing it on an ongoing basis.”

### Longer term framework

Al-Falih said that today “we are looking at calibrating exactly where we are in terms of rebalancing.” He added that he thought the market had rebalanced and that investments had started flowing back, particularly in the US with short-cycle oil. He noted, however, that “we still want more investment; my concern is really to be able to look forward in terms of five-to-15 years and see enough of the long-cycle projects coming back in.”

He noted that “I would not close my book and say mission accomplished; our industry needs constant monitoring and stewarding by key producers, which our gatherings this week will provide.”

“And we need to do this for a longer period” he said. In the long-term, he added, we need to create a framework to prevent another cycle from taking place. “We want to prevent the shortage and the squeeze we saw in 2007/08, but at the same time we want to prevent the severe downturns that hurt the industry, cause bankruptcies and see jobs being lost.”

He believed that “cycles can to be moderated, and to a large degree prevented, if we have a group of responsible and responsive producers working together in cohesion.”

### Connections and beneficiaries

Following the comments from Al-Falih, Yergin was asked about the changes he had witnessed over the past two years or so.

“Wearing the hat of an economic historian,” he said, “the change is the degree of integration between producers and consumers, as well as the connections.” He noted that the OPEC Secretary General has spent time in the US breaking down old images, although he stated that they do take a long time to fade away.

“The key thing I heard the Minister (Al-Falih) say was the reaction of the industrial countries’ because it is not a zero sum game,” said Yergin. “We have a very integrated global economy, so what happens in this industry affects everybody.”

While the rebalancing process has evidently been positive for stakeholders across the board, Yergin said that one could say that the biggest beneficiary of the stabilization of the global oil market is the US oil industry.

“The stabilization has allowed the investment to flow back into the US oil industry to meet the needs of consumers down the road.”

Al-Falih added that he thinks it is not only the US oil industry that has benefitted. “The US industry at large has benefitted ... the chemical industry is going through a boom ... Many Asian, European, and even Middle Eastern chemical companies are moving to the US. We have SABIC investing in the US. We have Saudi Aramco looking to build chemical plants in Texas.

“And of course that will cascade to other industries. Once you have the building blocks of materials being manufactured at low cost in the US then you will see the end products, automobiles, appliances and others. The job multiplier should not be underestimated as a benefit.”





*Daniel Yergin.*

## Consumer calls

Al-Falih also noted the recent calls from consumers, highlighting that two months ago he was at the IEF Ministerial Meeting in New Delhi and Indian Prime Minister Narendra Modi was vocal in discussing the impact of higher prices on the Indian economy.

He said that in terms of any supply release, we need to hear the views, and be respectful of every single Member of our grouping. “I will be sensitive to them, but at the end of the day, our foremost responsibility is to our consumers and the markets. I know that is the position of my government, we need to be responsive to the market and we need to ensure that demand is met.

“We will not allow the glut to materialize again ... and at the same we are not going to allow a shortage to arise to the point where markets will be squeezed, and consumers will be hurt.”

He also stressed that as a group “we need to

communicate, advocate what we are trying to do.” He highlighted the importance of trust between producers and consumers. “It is why the Kingdom is host to the International Energy Forum; we support its activities in promoting dialogue among producers and consumers.”

In concluding, Yergin said that the “general sense is that consumers have been heard; the voice of the consumer, from whichever direction, is being heard.

“We have also heard about a reassertion of stability in the global oil market that creates a platform for the investment that is needed to meet the needs of consumers.”

He ended with a note of caution, one he said that everyone needs to keep an eye on. “We need to watch out for global trade wars, the potential breakdown of the global trading system, and the playbook of globalization that has held for the last 70 years .... There are risks there, that we need to be aware of and ones that can be mismanaged.”



## Session IV

# Investment in the oil industry



### **Keynote speakers:**

*Jabbar Ali Hussein Al-luiebi, Minister of Oil, Iraq*

*Mustapha Guitouni, Minister of Energy, Algeria*

*Bakheet S Al-Rashidi, Minister of Oil and Minister of Electricity and Water Kuwait*

*Shaikh Mohammed bin Khalifa Al Khalifa, Minister of Oil, Kingdom of Bahrain*

*Aldo Flores-Quiroga, Deputy Secretary of Energy for Hydrocarbons, Mexico*

*Mustafa Sanalla, Chairman of the Board of Directors National Oil Corporation (NOC), Libya*

### **Panelists:**

*Maikanti K Baru, Group Managing Director, Nigerian National Petroleum Corporation (NNPC)*

*Rainer Seele, CEO, OMV*

*Majid Jafar, CEO, Crescent Petroleum*

*Helima Croft, Global Head of Commodity Strategy, RBC Capital Markets*

*Christof Rühl, Global Head of Research, Abu Dhabi Investment Authority*

### **Moderator:**

*Eithne Treanor, E Treanor Media*



During the initial informative and lively discussions, the speakers provided overviews of measures that were being taken to improve the investment climates of their respective countries. The 'Declaration of Cooperation', by encouraging a greater level of stability in the market, has improved the pace of investments; however, substantial improvements are still required to meet demand increases in the future and account for natural decline rates. Factors affecting the pace of investment include geopolitical uncertainty, trade related tensions between major countries and, often, regulatory frameworks. The image of the industry was also emphasized as an important factor that needs to be improved to encourage more investment.

### **Jabbar Ali Hussein Al-luiebi**

*Minister of Oil, Iraq*

Jabbar Ali Hussein Al-luiebi, Iraq's Minister of Oil, began by commending the OPEC Secretary General and all staff involved in organizing the Seminar. He noted the profound changes that the global economy has experienced in recent years, and referenced that global oil investments fell by about 25 per cent in 2016 and 2017.

He noted that oil will continue to play a leading role in the energy mix, adding that the challenges over the coming decades included meeting the ever-growing increase in oil demand, while ensuring the protection of the environment.

Al-luiebi turned to the challenges faced by the Iraqi energy sector. He said that the Ministry of Oil continues to work hard to find new means of opening investment opportunities in Iraq. He added that "today, Iraq is open again for mutually beneficial collaboration to attract foreign investment in the energy sector." Iraq is currently heading and expanding operations in oil fields, and financiers have been invited to invest in the pipeline network, export facilities and other important infrastructure elements.

The Minister concluded by re-emphasizing that Iraq is open to investment in all sectors, particularly in the infrastructure and upstream sectors.

### **Mustapha Guitouni**

*Minister of Energy, Algeria*

Mustapha Guitouni, Algeria's Minister of Energy, stressed that investment is the link between past and present, and present and future, affecting both consumers and producers.

History has shown that when oil prices are low, investment has dried up, he added, which results in an inevitable period of high prices. He noted that extreme volatility is harmful for producer, as well as consumer countries, and highlighted in the last four years that \$1 trillion of investments have been delayed or cancelled.

The 'Declaration of Cooperation' has been a remarkable success, Guitouni said, with participating countries showing high commitment that has enabled the



*Jabbar Ali Hussein Al-luiebi.*



*Mustapha Guitouni.*

depletion of the OECD stock overhang. This has allowed the market to come into balance, he stated. The positive effects of the 'Declaration of Cooperation' must be capitalized upon, he added, in order to maximize the progress achieved so far.

The Minister emphasized that investing in Algeria offers promising perspectives. He said that Algeria wants to intensify its investment efforts, in order to meet both the needs of its domestic market and consolidate its position as a major oil supplier. Guitouni also stressed that Algerian legislation will be revised to ensure the country is more attractive for IOCs. The Minister stressed that Algeria will seek to reduce costs, use modern technologies and simplify processes, and will also encourage investment in renewables.

### **Bakheet S Al-Rashidi**

*Minister of Oil and Minister of Electricity and Water, Kuwait*

Bakheet S Al-Rashidi, Kuwait's Minister of Oil and Minister of Electricity and Water, noted that diminishing investments in the upstream, exploration and production sectors that began in 2014, with a decline of around 25 per cent, was a consequence of the price collapse coupled with geopolitical and non-fundamental factors. This also reflected, he said, a lack of confidence in the sector.

"In the upcoming five years it is crucial that there is a revival of investment in the industry before it is too late,"

said Al-Rashidi. Given the long lead-time in the industry, he stressed that it is crucial to act today to compensate for natural decline rates. In this regard, an important dimension of the 'Declaration of Cooperation' has been to simulate more investments. "The international community is reaping the fruits of our collective efforts," Al-Rashidi noted. "Consumers have regained faith and confidence in the oil industry."

Kuwait has taken action to grow its position as a global supplier and plans to reach 4mb/d production by 2020, he said. This is intended to be achieved through a range of measures including undertaking several projects in the upstream sector, increasing the number of rigs, developing a diverse range of crudes, and investing in gas processing activities, he noted. Kuwait will also prioritize developing environmentally clean projects.

Al-Rashidi said that the country is currently developing a new refinery, which will also be integrated with a petrochemical complex. He added that this, along with other projects, including the upgrading of other refineries, will see a total of over \$100 billion invested in the coming five years, to reach the planned crude capacity.

### **Shaikh Mohammed bin Khalifa Al Khalifa**

*Minister of Oil, Kingdom of Bahrain*

Shaikh Mohammed bin Khalifa Al Khalifa, Bahrain's Minister of Oil, complimented the leadership of the



*Bakheet S Al-Rashidi.*



*Shaikh Mohammed bin Khalifa Al Khalifa.*



‘Declaration of Cooperation’, which has done so much to contribute to stability in the market. He stressed the importance of stability, flexibility and transparency, particularly with regard to the ongoing dialogue between OPEC, the IEA and the IEF.

Noting that it was extremely responsible for participating countries in the ‘Declaration of Cooperation’ to take the actions in the manner they have done so, Al Khalifa stressed that the next test will be to sustain the stability achieved to date.

### Aldo Flores-Quiroga

*Deputy Secretary of Energy for Hydrocarbons, Mexico*

Mexico has been taking recent actions to transform its energy sector, said Aldo Flores-Quiroga, Mexico’s Deputy Secretary of Energy for Hydrocarbons.

For the first time in eight decades, Mexico has opened its oil sector to foreign and direct investment. This opening has, in just three years, attracted \$161 billion of potential investment, he said, and a framework of transparency and competition has been the pillar for attracting this investment.

“In just three years, Mexico has gone from having one company working through the full value chain to open markets with 73 exploration and production companies, 74 transportation and storage infrastructure companies and 45 new motor fuel retailers,” said Flores-Quiroga.

He emphasized that the general principles guiding this opening, have been clearly defined property and participation rights set out by the Mexican constitution, enabling laws and regulation. Particularly pivotal has been the adherence to transparency throughout the full process, which he said has facilitated the “free entry and exit for economic agents through flexible process.”

Flores-Quiroga said that it remained a priority for Mexico to ensure everyone interested in the market is as informed as possible. In this regard, decision makers have striven to make policy clear and increase access to data, including the ongoing publication of prices. He said the success of the Mexican initiative has been demonstrated by the fact that in total, 178 new companies are investing \$171 billion, notably without public spending, without public debt and with risks being shared.

### Mustafa Sanalla

*Chairman of the Board of Directors National Oil Corporation (NOC), Libya*

Mustafa Sanalla, Libya’s Chairman of the Board of Directors National Oil Corporation (NOC), congratulated all assembled ministers for their continued cooperation under the aegis of the ‘Declaration of Cooperation’, which has allowed the sector to rebound from the bleak situation it found itself in two years ago.

Libya has benefitted from this, he said, as NOC revenues have tripled; nevertheless, production remains



Aldo Flores-Quiroga.



Mustafa Sanalla.

well below capacity as the country suffers from restraints on production. Total production losses in Libya between 2011 and August 2017, amounted to approximately 2.5 billion barrels, worth roughly \$187 billion, he added.

Despite the challenges, he noted that Libya holds the largest crude reserves in Africa. “Political stability remains the key for securing the future of the industry and the prosperity of the country,” said Sanalla. The recent Paris Accords have outlined a path towards elections at the end of the year.

Furthermore, Sanalla noted that the UN Security Council has delineated sanctions against individuals who smuggle people and oil out of Libya. Sanalla was very appreciative of the fact that the OPEC community understands the difficulties Libya faces.

He stressed that the next bidding round in Libya will take place as soon as the security situation permits and Libya wants to make a meaningful contribution to the stability of energy supply to Europe. Libya currently has the capacity to produce 1.6m b/d and the ambition is to increase this to 2m b/d by 2022, he said. Such goals require significant investment, amounting to \$20 billion, and Sanalla stated that he was optimistic that such investment will increase in the near future.

#### Panelists:

##### Christof Rühl,

*Global Head of Research, Abu Dhabi Investment Authority,* emphasized that investment is not driven by prices. Investments are driven by revenues, or specifically prices minus costs. Costs follow prices, he said. He noted that



Christof Rühl.

volatile adjustment processes remain a problem. While there is a built-in stabilizer in the system, the importance of long-term expectations must be considered.

He was particularly concerned by short-termism coming into the boardroom. Shareholders are increasingly reluctant to back long-term investment projects, he said, but added that short-termism can be overcome by creating the right expectations for oil demand. Rühl said that obstacles can be overcome by innovation and technology, highlighting the amazing capacity of the industry to adjust. As the theme of the Seminar stresses, he said, cooperation and partnership are key.

##### Majid Jafar,

*CEO, Crescent Petroleum,* stated that challenges in Middle East tend to be above the ground, specifically geopolitics or regulatory regimes.

He also outlined the particular challenges posed by the industry's image problem by quoting the *New York Times*, which in a front page article on Saudi Aramco said “the crude business is less attractive ... Countries are shifting to renewable.” Jafar said: “We have an image problem and we are not responding to it.” This image in the mainstream media, he said, is juxtaposed with reality.

The reality is that current global energy consumption is around 280m boe/d, with oil still playing the leading role and renewables at just three per cent. He noted that the world's car fleet is 1.3 billion vehicles, 3 million of which are electric vehicles. He also stated that gas replacing coal has contributed to the lowest US emissions in 25 years.

Jafar argued that we need to kill the term fossil fuels, which implies “something old and dead”. He said that there was a collective need to do a better job of advocating for the industry. We need to portray our industry as “a growth sector, hi-tech sector and that it is not the cause of climate change, but a critical part of the solution.”

##### Rainer Seele,

*CEO, OMV,* cautioned against stakeholders in the industry being volume-driven, rather than value-driven.

He also said that there is a need to be prepared for a low cost environment in the future and argued that the risk for investors has substantially increased, as the market risk is higher, and there is the possibility of a trade conflict involving China, the US and the EU. He added that product oil lines are under pressure and there are diesel bans in some European cities.

Seele added that there is a need to look at





Majid Jafar.



Rainer Seele.



Maikanti K Baru.



Helima Croft.

both downstream and upstream, and to invest in petrochemicals.

### **Maikanti K Baru,**

*Group Managing Director, Nigerian National Petroleum Corporation (NNPC)*, stressed the importance of policy stability, as environmental issues and security are crucial. In terms of Nigeria, he said that oil production was at a low in 2015, but NNPC and the Nigerian government have worked hard to improve relations with host communities. Investors have also responded positively, he said, investing \$3.6 billion in two years.

He added that changes to Nigeria's legislation framework are also improving things, and stated that Nigeria has been inspired by the Mexican example.

### **Helima Croft,**

*Global Head of Commodity Strategy, RBC Capital Markets*, stressed that investor confidence is key, citing Nigeria as a good example. While the country has faced a host of issues, especially with regard to security, particularly in the Niger Delta region; progress has been made.

She stated that the Niger Delta region has seen improved levels of production, and added that it remains to be seen what the impact of the Petroleum Industry Bill will be.

In this regard, she posed the question, 'Can the Nigerian government cement the progress achieved?' She also noted that she was watching the results of reforms in Mexico too.



## Session V

# World economy and the future of oil



### **Keynote speakers:**

*Mohammed Bin Saleh Al Sada, Minister of Energy and Industry, Qatar*

*Manuel Salvador Quevedo Fernández, Minister of Petroleum, Venezuela*

*Emmanuel Ibe Kachikwu, Minister of State for Petroleum Resources, Nigeria*

*Parviz Shahbazov, Minister of Energy, Azerbaijan*

### **Panelists:**

*Ayed Al-Qahtani, Director, Research Division, OPEC*

*Urban Rusnak, Secretary General, Energy Charter Secretariat*

*Darcy Spady, 2018 SPE President*

*Pratima Rangarajan, CEO, OGC Climate Investments*

*Adam Sieminski, President, KAPSARC*

*Bassam Fattouh, Director, Oxford Institute for Energy Studies*

*Tope Shonubi, Executive Director, Sahara Group*

### **Moderators:**

*John Defterios, CNN*

*Eithne Treanor, E Treanor Media*



Session V of the 7<sup>th</sup> OPEC International Seminar — *‘World economy and the future of oil’* — saw keynote speakers and panellists discuss a number of key questions surrounding the macroeconomic conditions within which the oil industry and markets have to operate.

### **Mohammed Bin Saleh Al Sada**

*Minister of Energy and Industry, Qatar*

The session’s first keynote speaker was Mohammed Bin Saleh Al Sada, the Minister of Energy and Industry of Qatar. “Energy has a tremendous impact and resilience on economies across the globe,” he said. “It will continue to play a vital role and be the driving force behind the world’s economic prosperity.”

He also noted the need to understand the different sectors within energy. “To address the role of oil in the world economy, it is essential to understand the dynamics of the energy market — the majority of which consist of oil and gas.” But it is oil’s importance that is most worth noting.

In his remarks, Al-Sada said that “[oil is currently] contributing about 80 per cent of global energy requirements.” He also noted that “a quarter century from now ... global energy demand is expected to grow by 25 per cent to 50 per cent and fossil fuels will still contribute up to three-quarters of ... requirements.”

Thus, as OPEC and other global energy stakeholders

have echoed, “oil will continue to be the leading fossil fuel.” This will be “driven mainly by transport needs and petrochemical industries — especially in Asia,” Al-Sada added.

### **Manuel Salvador Quevedo Fernández**

*Minister of Petroleum, Venezuela*

Next to speak was Manuel Salvador Quevedo Fernández, the Minister of Petroleum of Venezuela. He offered some general comments about current global conditions, saying that given the changing economic conditions around the world, his country was “taking a close look at future plans and projects.”

Economic forecast for the next 20 years, he said, suggest that economic growth will be around 3.5 per cent per year, growing on the back of population growth and other demographic drivers. These factors will continue to underpin the growth of energy demand, as OPEC’s own research has suggested.

Additionally, the development of other sources of energy is an important feature for the future. However, he noted, these need time, energy and investments so as to better gauge their potential impacts on energy and oil, in particular, and their overall usefulness to meet world energy needs.

Against a dynamic economic and financial backdrop that includes the emergence of alternative forms of



*Mohammed Bin Saleh Al Sada.*



*Manuel Salvador Quevedo Fernández.*

payment, Quevedo also noted various interesting developments being explored. He pointed to the emergence of alternative forms of payments and said that “one of the innovative things [Venezuela] has done is to explore the creation of a new cryptocurrency.” Much work and research remains to be done in this regard, he noted.

Finally, the Venezuelan Minister also underscored the importance of OPEC unity and the undeniable fact that the world is increasingly built on, and reliant on, ‘interdependence’, saying that “the future of Venezuela is OPEC.”

### **Emmanuel Ibe Kachikwu**

*Minister of State for Petroleum Resources, Nigeria*

Emmanuel Ibe Kachikwu, the Minister of State for Petroleum Resources of Nigeria, was the next speaker. In good-natured comments to the audience and to his fellow speakers, the Minister offered a useful summary of some of the points made earlier in the session, as well as in earlier sessions, concluding with recognition of oil’s continuing importance, now and into the future.

Taking a broad look at what may happen in the energy field to 2040, the Nigerian Minister concurred with other speakers, agreeing that oil “is going to be here to stay for the next 50 or 60 years,” particularly with new finds and new technologies. “Clearly oil will be around for a very long time,” he said.



*Emmanuel Ibe Kachikwu.*

In terms of what relevance this may have for the entire world community, Kachikwu said that it would depend on the volume of investments that is available for further exploration and production — and what technologies will be available.

Although renewables and the recent production constraints in some countries continue, there is room for optimism with regard to oil, he said. Nevertheless, he noted, producing countries like Nigeria have been focusing more on ensuring a stable and sound investment and business environment.

“In Nigeria, we have been working on a Petroleum Energy Governance Bill, to help the sector,” the Minister said, then adding that the government is continually exploring ways in which they can better “compete for investment.” With ongoing efforts to ensure stability in the markets, the way forward is one of continuing growth and the expansion of the industry.

### **Parviz Shahbazov**

*Minister of Energy, Azerbaijan*

The final keynote speaker was Parviz Shahbazov, the Minister of Energy of Azerbaijan. Taking stock of recent developments over the past several years, the Minister noted the “perturbations in the global oil market” of 2014–16, but then acknowledged the “reversal” of that challenging situation, noting in particular recent



*Parviz Shahbazov.*



improvements. This, he added, was “only possible due to dedicated cooperation between OPEC and non-OPEC countries.”

Shahbazov then reflected a little on how the recent return of sustainable stability in the market demonstrated “the achievement of the equilibrium between supply and demand”, as well as a return to balance between economic development efforts and other geopolitical factors, all of which, he noted, require continuous monitoring. Furthermore, it “underlines the importance of uninterrupted consultations between oil producing and exporting countries.”

In looking ahead, the Minister said that the global economic outlook offers several reasons for hope and real optimism. Not least of which is the ongoing cooperation between the producers in the ‘Declaration of Cooperation’ which has, he said, “achieved the stabilization of the market.”

Finally, Shahbazov noted that the OPEC Seminar is an ideal platform for the exchange of ideas and insights by both oil producing and consuming nations. It has provided, he said, an ideal opportunity in which to engage with each other — as well as with critical stakeholders on key issues impacting global energy markets.

### Panelists:

#### Ayed S Al-Qahtani

*Director of OPEC’s Research Division* — the keynote speakers were followed by several panellists. First to respond to the moderator’s question about future demand was Ayed S Al-Qahtani, Director of the Research Division at OPEC. “At OPEC,” he said, “we focus most, if not all of our attention on fundamentals — so maybe I can talk a little bit about fundamentals and we can reflect on prices or at least infer to them from a ‘shy distance’.”

“Last year,” Al-Qahtani continued, “we had very good economic growth and that translated into a very healthy demand growth.” He then added that “we tended to enjoy the same economic growth this year, despite the soft first quarter that we had.”

Now going forward, he noted, although we see healthy demand growth, there is still the challenge of securing the necessary investments. “As we try to secure the required investments,” he noted, work needs to be done to ensure that they continue to flow. For the



*Ayed S Al-Qahtani.*



*Adam Sieminski.*



*Pratima Rangarajan*

moment, he said, “definitely we are suffering a shortage of investments.”

More generally, when considering market fundamentals and market prices, Al-Qahtani said there is always a “need to look at economic situation to see if prices are reasonable or not.” Despite the incessant attempts by the media to get oil producers, whether OPEC or non-OPEC alike, to specify prices, such queries miss the mark, since what matters more is market stability. “It is very hard to pinpoint ... or decide on a range in the absence of the whole economic picture,” he noted.

### **Adam Sieminski,**

*President of KAPSARC*, spoke of the energy needs required for the carrying out and implementation of other activities and technologies that have resulted in general “improvements in life” and made our modern lives better. “Certainly the breakthrough in things like ‘big data’ and artificial intelligence can play a role, but “transportation, petrochemicals and manufacturing are still going to be a huge market for oil and natural gas that will continue for many years.”

Taking stock of global trends and patterns, given his position as head of a leading research institution, Sieminski said that “overall, growth in the economy is going to require more of nearly everything,” including a diverse energy mix.

### **Ms Pratima Rangarajan,**

*CEO of OGCI Climate Investments*, said that the need for more data and an understanding of the whole picture was a recurring theme, noting that the same could be said about climate change and investments.

She explained a bit about the aims and objectives of OGCI Climate Investments, but spoke of the larger importance of achieving real tangible impacts in the reduction of greenhouse gas emissions. There are “many pieces to the issue [environment and carbon emissions] ... but it is capturing minds and the imagination of young innovators”, and this holds promise for the development of financing and technical solutions in the future.

### **Urban Rusnák,**

*Secretary General of the Energy Charter Secretariat*, agreed on the importance of ensuring discussions



*Urban Rusnák.*



*Bassam Fattouh.*

surrounding the necessary investment for a real reduction in emissions around the world, particularly by stakeholders in the energy sector. “We have seen [the emergence of] the issue of public acceptance” in regards to the image of the energy industry, particularly the oil sector, and the public needs to be convinced that steps are being taken to reduce the industry’s carbon footprint.

“Pollution is the main driving factor for the public debate in ... countries nowadays,” he said. Nevertheless, Rusnák said that when looking at the short to medium term, the picture is “rather rosy”, with investments starting to comeback. However, in the medium to long term, “I am not so sure.”





*Darcy Spady.*



*Tope Shonubi.*

### **Darcy Spady,**

*2018 SPE President*, spoke on behalf of hard-working Canadians in the oil sector and their commitment to ensuring supply, particularly as the oil price rises. “You try to rein in 12,000 crazy people going as hard as they can for what they need to do every single day to make a living, and that is a very tough bunch to regulate.” But such producers will continue to produce oil — especially as the price goes up.

“We are badly undisciplined, ‘wildly free market’, but we can only go in one direction,” he said, explaining that some hard-scrabble producers can only respond to price signals. This explains why “we are selling like crazy” at the moment.

### **Bassam Fattouh,**

*Director, Oxford Institute for Energy Studies*, chimed in, adding several important points. “One thing we have noticed is that the relationship between economic growth and oil prices has weakened over time,” he said. This is an interesting development, he said, noting that the nature of the shocks that have been driving the market in recent years and decades has changed.

“Before they were generally geopolitical shocks, but more recently they are shocks driven by rapid growth in demand, and other factors.” What this means for people in the room and for those working in the industry is that “it shows that you can have higher prices and still have higher demand.” This was an especially interesting theme, and discussions around it continued during the break that followed the session.

### **Tope Shonubi,**

*Executive Director of the Sahara Group*, spoke very candidly of the challenges that people living in developing countries and emerging markets face. “We focus mostly on fundamental factors,” he explained, giving what he called the “emerging market” point of view. This means, in effect, that discussions about

the technological impact on transportation or innovative technologies that may help the environment become secondary.

“People just want to know where they can get power,” he exclaimed. When people are desperate for fundamental things, he said, some questions become secondary. That, he said, was one challenge. However, he also noted that the pressures of an increasingly competitive world, and a faster economic cycle, make it more challenging for businesses. “The world has become so dynamic,” he said, “that most of time you have to focus on monthly plans rather than on your five-year or ten-year plans.” This is a challenge for all producers, whether large or small.



Meghan O'Sullivan.

## Closing session

Meghan O'Sullivan, Harvard University  
 Mohammad Sanusi Barkindo, OPEC Secretary General







*Mohammad Sanusi Barkindo.*

As the 7<sup>th</sup> OPEC International Seminar drew to a close, Meghan O'Sullivan from Harvard University took to the stage again to deliver some parting words and thoughts. It provided a neat bookend to her scene setting remarks from the previous day.

O'Sullivan stated that the past two days had witnessed lots of discussions and lots of new ideas. She said that "one of the things underscored by our

deliberations has been something that we all know deep down, and that is to understand what is happening in the world today requires that we understand the complex interaction of three things. The first is technology and markets; the second is policy; and the third is geopolitics."

She added that "certainly if we look at the last five to ten years and some of the major developments on



*The Superar Children's Choir perform during the closing ceremony.*

the global landscape we can recognize that they are the product of these three things and their intersection.”

### Technologies, policies and geopolitics

In terms of new technologies, she said it is clear that these are going to bring more supplies to market. “This is true for both conventional and unconventional oil, and in terms of alternative energies.”

She also stressed that “we also know that technologies are going to have a big impact on demand, some will increase demand, but my bet is that technology will lead to much greater efficiencies.” In this regard, she referenced such technologies as artificial intelligence, big data and digitalization.

From the perspective of policies, she said the two biggest countries in this debate are China and the US. When looking at China, she noted that “what happens there will influence the global trajectory of supply and demand, as well as technologies.”

In talking about the US, she stated that she does not “have the key to unlocking the mysteries of the policies of the current administration,” but offered a few observations. She saw the US as currently a “disrupter”, and also underscored what she called the country’s sometimes “split identity”.

In this regard, she said that “sometimes it will view itself as a large consumer, and sometimes as a large producer... So sometimes the US may adopt seemingly contradictory policies.”

She also stated that this Administration’s top energy policy is to maximize the exports of US oil and gas, which is important economically, as well as being a source of geopolitical strength.

On the issue of geopolitics, she emphasized that the future of energy evidently depends on the evolution of key geopolitical relationships. “That has always been the case, and continues to be true, and from the perspective of OPEC she mentioned the ‘Declaration of

Cooperation’ and the Organization’s relationship with non-OPEC producers.

### Main takeaways

In reviewing the main takeaways, O’Sullivan said that she believed it flowed from two fundamental assumptions. “The first is that we are in an energy transition, and secondly, and importantly, that transition will be long, uncertain and have some setbacks.”

She stressed that from this a number of things emerge. In thinking about OPEC, she highlighted a number of issues, including: there is clearly a place for oil in the future energy mix for the foreseeable future; how the production and growth arc of shale might evolve in the coming years; and the importance of cooperation, even beyond the ‘Declaration of Cooperation’.

On the last point, she talked about great communication with consumers, which she emphasized had featured prominently in discussions over the past two days, as well communicating to other producers and financial markets, “this is vital for OPEC,” she said.

She praised the Seminar, saying it had been an event of real exchange. There has been “a lot of food, and a lot of thought put on the table.”

### OPEC Secretary General

The floor was then passed to Mohammad Sanusi Barkindo, OPEC Secretary General, who began by thanking O’ Sullivan, who he said had not only set the scene for the Seminar the previous day, “she had also set the tone.” He added that this had also been evident in her comprehensive wrap-up.

In turning to what he had witnessed throughout the Seminar, the OPEC Secretary General began by quoting the English philosopher and Noble Prize winner Bertrand Russell once said: “*The only thing that will redeem mankind is cooperation.*”



He added, in further reflecting on the Seminars discussions, “one cannot help but conclude that the future success of this industry indeed lies in the 3 ‘c’s’: cooperation; cooperation and cooperation.

He stressed that this is reflected in values that OPEC truly believes in. “Openness, transparency, and respect for all nations and stakeholders. These core principles, which lie at the heart of international relations and multilateralism, can help guide our Organization and the petroleum industry to a bright, sustainable future.”

Barkindo emphasized that while OPEC means many things to different people, “this Seminar has once again shown that, above all, OPEC is about people; OPEC is a community; and, most importantly, OPEC is a family.”

## Thanks

The Secretary General said that “it is in this spirit that I will deliver a few words of thanks.” Firstly, he said, “I would like to thank all our speakers, moderators, panelists and discussants who ensured our sessions were enlightening and illuminating. We are very grateful to have been joined by the *crème de la crème* of the energy industry, including over 100 ministers, CEOs, heads of international organizations and other eminent industry leaders.”

He paid a particular tribute to the sponsors. “They have faithfully answered our call for support and done an outstanding job in ensuring all our events and side-events have been exquisitely executed.”

He also thanked the “more than 900 delegates who have also played a tremendous role in ensuring this Seminar has been a success.”

Turning to OPEC’s Member Countries, he said that the Organization is very blessed to have such distinct and diverse Member Countries. “I would like to thank our 14 Member Countries for enriching this event ... at the OPEC Secretariat, we feel truly humbled to provide support to each and every one of you.”

He also stated that it was “momentous that we have

been joined by so many of our non-OPEC partners. The landmark ‘Declaration of Cooperation’ was just a beginning and this Seminar has shown that this cooperation continues to evolve, and go from strength-to-strength.”

To the government of Austria and the City of Vienna, he said that the best way I can convey my gratitude is to quote the beautiful words of the famous song, ‘*Vienna, city of my dreams*,’ which sums up why many of us call this city our second home:


*My heart and my mind  
is so full of Vienna  
for Vienna as it weeps, as it laughs  
that’s where I know my way, that’s where  
I’m at home*

A final word of thanks, he said, must go to all of my colleagues at the OPEC Secretariat, who have worked so tirelessly in the preparation for this Seminar. “The OPEC Secretariat is a unique and special place to work for many reasons; but above all, it is because of the inspiring commitment and dedication of our staff.”

## Trust, dialogue and teamwork

“Building trust and fostering dialogue between all stakeholders in the energy community is intrinsic to OPEC’s DNA,” said Barkindo. He thanked everyone that had played a role in the Seminar “for reciprocating our desire to promote knowledge exchange and mutual respect.”

In concluding, he said that “as we are in the city of music, I would like to leave you with one final thought from Halford Luccock,” which Barkindo said encapsulated the common theme of this Seminar:

*No one can whistle a symphony.  
It takes a whole orchestra to play it.* 



## Seminar Webcast interviews

# On the sidelines of the Seminar ...

### Karin Kneissl

*Federal Ministry for Europe, Integration and Foreign Affairs, Republic of Austria*

In an interview with the OPEC Webcast team, Karin Kneissl, Federal Ministry for Europe, Integration and Foreign Affairs, Republic of Austria, said that Vienna hosting OPEC as an international organization since 1965 has been beneficial and has “tremendous merits in order to bring stability to energy markets.”

She also noted that over the last 15 years, Vienna



Karin Kneissl.

has developed itself as an energy hub. “There are a number of other energy-related organizations. The International Atomic Energy Agency, of course, has been here for much longer.

You cannot compare it to OPEC, but of course it is also related to energy

topics, plus we have the Vienna Energy Club and there are numerous industries and also non-governmental organizations dealing with energy. OPEC has been, to say, the cornerstone around which numerous other institutions dealing with energy have built up.”

Kneissl also said that Austria has also built itself as a central hub for discussion and debate. She referenced the OPEC Secretary General’s speech earlier that day that talked about the role of Vienna as a historical meeting ground, mentioning different diplomatic conferences. She added that “our way of handling

negotiations is still talking to each other and not talking about each other.”

In terms of OPEC, Kneissl said that before she joined the government, she had spent two decades working as a reporter and writing books, and in this regard, she used the OPEC library, as well as discussions with members of the research department and various Secretary Generals. “It was always very helpful and inspiring to have OPEC just around the corner.”

### Carlos E Pérez

*Minister of Hydrocarbons, Ecuador*

Carlos E Pérez, Minister of Hydrocarbons of Ecuador, said that he hoped the discussions and talks at the Seminar would bring about new thoughts about the current market situation, and he hoped that it would give countries and companies a better idea where we are going.



Carlos E Pérez.



***The following interviews with ministers, CEOs, industry thought leaders and more were conducted by the OPEC Secretariat's Webcast team at the 7<sup>th</sup> OPEC International Seminar.***

In terms of the differences compared to the last OPEC Seminar in 2015, he said that we did not know then that there would be such a big downturn, but today “we have finally stabilized the market ... so I think times are a bit different now.

“We see more optimism and hopefully investment will keep on growing because we see that demand is still going up, as OPEC says, until 2040, so expectations are good.”

Pérez was also asked his thoughts on two themes from the Seminar, the energy transition, as well as environment and climate change. “We need to invest more money and work on technologies that support that,” he said, “and we need to be much more efficient in the use of hydrocarbons in the different industries.”

He noted that as an industry we have become very conscious about the environment and what our responsibilities are. “I think there is a much different mindset in the industry that even though we are an industry that uses hydrocarbons we need to be much more responsible for the future.”

**Gabriel Mbaga Obiang Lima**

*Minister of Industry, Mines and Energy, Equatorial Guinea*

Gabriel Mbaga Obiang Lima, Minister of Industry, Mines and Energy of Equatorial Guinea, has spoken often of the importance of the ‘Declaration of Cooperation’. On the sidelines of the Seminar, he explained that “it was through the call for the ‘Declaration’ ... that we realized that it was important to cooperate with oil producers.

“We were one of the signatories ... and we realized how important it was not just to be a passive partner.”

The Minister also spoke highly of the role played in this process by OPEC’s Secretary General, noting that “it

was clearly through the lobby of the Secretary General ... that we decided to join.”

Turning his attention to the global economy and the oil market in particular, the Minister noted that it had changed for the better. “Stability is good for investments,” he said. Now, investors are willing to return to the country. “For a little country like us, you really see the impact because you see the major companies deciding to come back and get new acreage.



*Gabriel Mbaga Obiang Lima.*

“You see them investing in drilling. You see them hiring new contracts and ... creating new jobs.” So for a little country like Equatorial Guinea, the past two years have really improved the economy, he said.

The Minister also took a moment to highlight the advantages of small states like his country. “The advantage that we have is that ... [small countries] are able to talk with key decision makers” and effect changes in policies and regulations. “If for any reason the price is dropping,” he said, “we can change our projects — and that has been mainly the biggest advantage.”

He offers the example of natural gas for which demand has been increasing — so, in response, his country has been “incentivizing policies” to facilitate gas projects. “Any other big country ... requires a big bureaucratic procedure to change the regulations,” he said. But small countries have it much easier. “So in a period of one year or less, we can change the policies according to the market.”

He also offered a few words about the Seminar before turning his attention back to one of the sessions. “I am very impressed,” he said. “I understand this is one of the best, if not *the* best.”

As a platform for discussion among global energy stakeholders, the Seminar is an ideal occasion — because, he explained, “in a very short period, you get key decision makers ... and also key game changers of the industry to be able to discuss what they are seeing.”

### Mustafa Sanalla

*Chairman of the Board of Directors, National Oil Company, Libya*

Mustafa Sanalla, Chairman of the Board of Directors, National Oil Company, Libya, said the Seminar is good opportunity to come and talk to other oil producers, as well as oil consumers, major IOCs and organizations like IEA. He added that was his first time at an OPEC Seminar, but it had been “a fantastic one.”

In talking about the ‘Declaration of Cooperation’, Sanalla said that “so far it is good. The market has stabilized. It is fantastic really, a big achievement by OPEC and non-OPEC.”

In talking about the rapidly changing energy industry, he said that it is “changing moment by moment, minute by minute and it is challenging. The changes are very rapid, very rapid. Especially for renewables. Really it is amazing. But I will always say fossil fuels will be sustainable.”

Sanalla was also asked about the current situation in Libya, and he said that “unfortunately last week we lost two major terminals and we lost about 450,000 b/d of oil, which is affecting us very dramatically. This is due to attacks by terrorist groups on both the Sidra and Ras Lanuf terminals.

“It’ is really affecting us, but you know we have experienced over the last five or six years how to mitigate



*Mustafa Sanalla.*

and how to overcome these problems. Our staff and our people are ready, only waiting for a ceasefire ... and we are going to make again the required maintenance and resume production.”

### Emmanuel Ibe Kachikwu

*Minister of State for Petroleum Resources, Nigeria*

Emmanuel Ibe Kachikwu, Minister of State for Petroleum Resources, spoke about the main challenge facing the Nigerian oil industry. “The main challenge is getting production back. We are at about 2m b/d currently, but knock off the condensates, and we are slightly less than that.

“We are still struggling with infrastructure, we are still struggling with security, to get to the 2.3–2.5m b/d we think we should be doing by now. And far less than the potential 3m b/d that we have the capacity to do.”

In talking about investment, he noted that “infrastructure for us is key. That is what we have lacked; there is over \$30–\$40 billion of opportunities for investment in Nigeria, especially downstream, especially gas distribution. And in some cases, for some of the big brown-field projects that we need to expand on for low cost oil.”





*Emmanuel Ibe Kachikwu.*

He added that we have made a lot of progress over the last year or 18 months, with international oil companies, but challenges still remain, particularly with an uncertain price regime.

In talking about the cooperation between OPEC and non-OPEC producers, Kachikwu said that “it is nice, OPEC does not get isolated ... there is dialogue with non-OPEC producers, consumers.”

He also highlighted the “fantastic Seminar, with the event bringing together consumers, the big producers, oil companies, national oil companies and more. It is probably the single most diverse gathering I have seen in the oil industry for a long time. I thank the organizers for it.”

### **Manuel Salvador Quevedo Fernández**

*Minister of Petroleum, Venezuela*

Manuel Salvador Quevedo Fernández, the Minister of Petroleum for Venezuela, praised the OPEC International Seminar. “We need to recall the importance of this Seminar ... We need to set the tone in order to discuss, in order to improve dialogue and cooperation.”

These are precisely some of the elements that contributed to the success of the landmark ‘Declaration of Cooperation’ of December 10, 2016 — and Quevedo Fernández noted that many important things have been achieved since then, particularly in regards to the cooperation developed with non-OPEC countries.



*Manuel Salvador Quevedo Fernández.*

In this sense, oil has served as a unifying element. “It is important to know that the oil is a very important tool in order to promote cooperation,” he said. “And we look forward to improving the dialogue with all our partners at non-OPEC.”

Asked about his country’s outlook for the future and possible production plans, the Minister sounded optimistic. “It is important to recall we have overcome many difficulties regarding the drop in the oil price since 2014,” he said. Since then, especially now that prices are going up, he said, “we are strongly cooperating” in order to recover any lost barrels. “And we look forward to improve the situation in the short term.”

Turning to specific production and plans for an expansion, the Minister said: “Our current production is 1.6m b/d, but we are working very hard to reach a production of even 3m b/d.” This is achievable, he noted, though they still have to ensure conformity with the Declaration. “The most recent plan is to increase by 1m b/d in the short term.”

### **Shri Dharmendra Pradhan**

*Minister of Petroleum and Natural Gas, India*

Shri Dharmendra Pradhan, India’s Minister of Petroleum and Natural Gas, said that today India is the number three energy consumer in the world and added that India is a young nation and “our appetite is growing, our appetite is very high.”

However, today “we are still one of the lowest per

capita consuming energy countries, so there is a huge scope of future power requirements. To achieve that target, we have to have a very reasonable strategy.”

In talking about this strategy, Pradhan said that the Indian Prime Minister, Narendra Modi, had put forward a four-point strategy. Pradhan stated that we must have energy that is accessible to all our citizens, and it should be affordable, sustainable and secure.

He added that to fulfill this strategy the Prime Minister has called for “energy justice”. To fulfil our energy justice to our citizens, particularly being a welfare country, he said “we must get a reasonable and responsible price, which is a point that India has consistently put forward over the last few years.”

He stressed that we are a very price-sensitive country. “We are an emerging economy, our aspirations are high



*Shri Dharmendra Pradhan.*

and to fulfill our welfare requirements we have to have a moderate price.” He appreciated that there must be continuous investment in the E&P sector, in infrastructure ... and that this requires a stable price.

Nonetheless, he said, “it cannot be producer-centric. It has to be balanced between consumer’s needs and expectations and producer’s needs and expectations.”

The Minister thanked OPEC for organizing this kind of platform, involving both producers and consumers. He said he truly valued dialogue and cooperation to help find solutions to challenges. “I think this is the way. This is the way we discuss, deliberate, interact, and put forward points of view.”

## **Mohammed bin Hamad Al-Rumhy**

*Minister of Oil and Gas, Sultanate of Oman*

Mohammed bin Hamad Al-Rumhy, Minister of Oil and Gas from the Sultanate of Oman, said that he has always told people how important dialogue is. “I know we have different views. But we need dialogue, we need cooperation to express our views and at the end of the discussion, whether it is going to take a few hours or a few days, we are going to have a consensus. And that must be good for the market, must be good for the industry. Really it must be good for mankind.”

He highlighted the importance of the ‘Declaration of Cooperation’ agreed at the end of 2016, and said he hoped to see this cooperation strengthened. In terms of OPEC, he said, “I know we are not members, but I



*Mohammed bin Hamad Al-Rumhy.*

admire OPEC, especially the way they manage differences between member states in order to reach a consensus, which helps, I must admit, all of us.”

He added that all these producers have something in common. “We want something good for our people and that is the backbone I think of organizations like OPEC, it touches people’s lives, let us admit it. Not only among those 14 Members, but the rest of us who are in this business, and companies, shareholders and everybody else.”

Al-Rumhy was also asked about the concerns of consumers, alongside the taxes that governments put on petroleum products. He said that he has mentioned this issue a number of times. “I think they have a role to have



a two-tiered tax system, I know particularly European countries, and their tax is higher than the price of oil. If you take a litre of gasoline in some countries the tax part is much higher than the price that we sell or the market price of the crude. And that is something that I think needs to be discussed.”

## Alexey Teksler

*First Deputy Minister of Energy, The Russian Federation*

The first 18 months of the ‘Declaration of Cooperation’ have demonstrated its efficiency, said Alexey Teksler, First Deputy Minister of Energy, The Russian Federation.



Alexey Teksler.

“It was a unique and historic event when OPEC and non-OPEC countries came together at the negotiation table. They managed to reach consensus, come to an understanding and agree on a common goal, which is to ensure market balancing.”

He stressed that it is unprecedented that all the countries have demonstrated a high level of conformity to the voluntary production adjustments, in order to ensure stability in the energy market.

Looking ahead, he said that what is even more important is to ensure that the dialogue established between OPEC and non-OPEC countries continues. In terms of goals, he said that these might change, “new tasks might appear in the future, but what is vital is the

cooperation continues into the future ... so that positive messages can be sent to the market in terms of returning investment to the industry, in terms of creating new employment opportunities.”

In a question about the future energy transition, Teksler said that changes are taking place in the global energy market every day. “Right now the energy market is dominated by hydrocarbons and that is a situation that is going to hold for the upcoming decades. While the growing demand for renewables is very dynamic, consumption of hydrocarbons will continue to grow.”

He added that oil has been instrumental in the development of mankind, and it will continue to be in the years and decades ahead. “Those who know about the energy market understand how important the role of oil is, and they keep emphasizing that it is a key energy source for modes of transportation. In that way it is a key in fighting energy poverty.”

Of course, he said, the role of oil is going to transform and evolve in the future, for example, more substantial use in petrochemicals, but its overall importance will continue to persist.

In talking about the OPEC Seminar, Teksler said that it is an extremely important event, and it “is organized in such a way as to provide a unique opportunity for different stakeholders to come together.” He underlined that there are producers, consumers, key analysts and experts who are meeting together and discussing things at the highest levels.

He believed that this type of event can help form a better understanding of the current situation. It will enable the clear setting of goals and tasks for further cooperation in the future.”

He extended his gratitude to OPEC, and both the Secretary General and OPEC Conference President, for the organization of the Seminar.

## Sun Xiansheng

*Secretary General, International Energy Forum (IEF)*

Sun Xiansheng, Secretary General of the International Energy Forum (IEF), began by thanking Secretary General Barkindo and OPEC for inviting him to the OPEC Seminar.

He said his initial impression from the Seminar was the importance of dialogue. “There are so many ministers here and they have excellent speeches; we also see so many industry CEOs from international major oil



*Sun Xiansheng.*

companies, and we have several international organizations and think tanks. It is a very good platform for dialogue.”

He said that the value is that participants can share their positions, talk directly and, through this platform, improve cooperation.

Xiansheng also talked about the opening session and the comments from Meghan O’ Sullivan. He highlighted that she had emphasized how much the industry had changed in the past few years compared to 100 years earlier, and what might be ahead for the industry.

In this regard, he said that industry cooperation will be very important to address future issues. “For example, the cooperation between OPEC and non-OPEC producers, US shale oil, renewables, the energy transition, energy efficiency, and energy accessibility.” He added that the OPEC Secretary General had mentioned earlier in the day that about three billion people have no cooking fuel and one billion have no access to electricity. “These are all key issues,” he stressed, “so I think dialogue, cooperation and the Seminar are very important.”



*Mahaman Laouan Gaya.*

### **Mahaman Laouan Gaya**

*Secretary General, African Petroleum Producers Organization (APPO)*

In talking about APPO, Secretary General, Mahaman Laouan Gaya, said that he became head of APPO in July 2015 and that the main objective was to reform and reorganize the organization.

Today, he added, “after three years of intensive work, we now come to the end of the reform; we have changed the mission, the vision, the strategic objectives, the organigram and the name of the organization, now it is African Petroleum Producers Organization (previously the African Petroleum Producers Association).” The headquarters was previously in Brazzaville, Republic of the Congo, but now “because of the reform, we have temporarily moved to Abuja, Nigeria,” he said.

In terms of membership, he said that of 54 African countries, 18 are now members. He highlighted, however, that “20 African countries are producing petroleum and 30 are researching, so potentially we have almost all African countries that could be petroleum producers.”



Gaya also referenced specific challenges facing African producers, mentioning the issues of “management and local content.” He said that most of the producers in Africa come from abroad, and it is important that more people from Africa are involved in this.

He also noted that currently six members are in OPEC too. “We would like to increase the number of African countries who are members of OPEC. And we would like to strengthen cooperation between our two organizations.”

### Jay R Pryor

*Vice President, Business Development, Chevron*

Jay R Pryor, Vice President, Business Development, Chevron, was asked about his company’s strategy and investments in recent years. He said that it has “shifted to more short-cycle ventures with fewer major capital projects earmarked, which has inherently changed the risk associated with the investment portfolio.”

Pryor added that the most attractive projects are brownfield, “taking advantage of existing infrastructure and using technology to enable investment.” In terms of attractive greenfield investments, he noted that this “will be motivated by the size of the resource, fiscal terms, existing infrastructure and technical know-how.”

In talking about shale, he stated that it “has been revolutionary to the overall supply stack and will have a lasting impact, whilst moving high-cost, high-risk opportunities farther out into the future. Given returns associated with shale opportunities, all other asset classes have had to see costs come down and efficiencies improve to compete.”

Looking at deepwater, Pryor said that the Gulf of Mexico is an integral part of Chevron’s long-term strategy and that it announced two significant discoveries this year. “We are also lowering costs in deepwater through efficiency, technology and standardization. Overall, we have cut our Gulf of Mexico operating costs in half since 2014. Looking ahead, terms and conditions from host governments need to be considered to attract further investment capital.”

Pryor was also asked about the importance of cooperation and collaboration in the global petroleum



*Jay R Pryor.*

industry, and he emphasized that the industry, in general, has a long history of working together towards a shared vision — to meet the world’s energy needs. “Today collaboration is more important than ever. Cost reduction is an integral part of this, as is knowledge sharing and finding new and cleaner energy solutions.”

He concluded by saying that “the OPEC International Seminar always provides me with a wonderful opportunity to reconnect with old friends and meet new acquaintances. This year was no exception. I leave Vienna with a renewed motivation and proud to be part of our industry.”

### Meghan O’Sullivan

*Harvard University*

Meghan O’Sullivan of Harvard University spoke to the OPEC Webcast team after setting the scene for the OPEC Seminar. She said that the “point I was trying to make [in her remarks] is that we are in an unprecedented global arena, and of course energy is connected to politics in the most fundamental way.

“So we are living in a world, compared to ten years

ago, where there are big uncertainties about what the geopolitical order is, what the role of the US is. This is at the macro level, but there are also the questions about the same issues, but at an energy level. Take the role of the US, for example. Ten years ago, the US was an energy supplicant; it was looking to the rest of the world to bring in energy.”

“Now the US is an energy super producer. It is alongside Russia and Saudi Arabia among the world’s biggest producers of crude oil. This has generated a change in political attitudes and a different kind of feeling about the US in the world.”

O’Sullivan was also asked about the ‘Declaration of Cooperation’ and dialogue in general. She said that “it is a very good sign on a lot of levels.” The one she underscored most was “that OPEC is really reaching out, trying to explain its position, its strategy and its objectives to a much larger group than in the past.



*Meghan O’Sullivan.*

“So not only is this additional non-OPEC producing country group important, but it is also important for OPEC to communicate with and get its message to other non-OPEC producing countries, to consumers, to the younger generation, to the financial markets, because there is a lot of misunderstanding about what the objectives of OPEC are. So if this is the beginning of a very serious and sustained outreach by OPEC and I think that it will bear good fruit.”

She also noted that there is still “a lot of misunderstanding about OPEC in the US and there is a very, very strong perception that OPEC’s interests are by definition the opposite of US interests, but in reality we actually have a common interest in the stability of the market and the more that can be emphasized the better the energy situation will be going forward.”

She said the Seminar had been a fantastic event. “There has been a lot of energy, a lot of openness, a lot of willingness to have dialogue across traditional barriers. We see on stage, producers, consumers, companies and academics like myself all contributing to a common conversation, so there is a really positive feeling in this room.”

### **Ayed S Al-Qahtani**

*Director, Research Division, OPEC, Chairman, OPEC Seminar Steering Committee*

Ayed S Al-Qahtani, Director, Research Division OPEC, speaking to the OPEC Webcast at the end of the OPEC Seminar, celebrated the successful completion of this “world-class seminar”. It is a historical record, in terms of participants, nationalities, speakers and more he said. “It is the premier event in the global oil-focused seminars and events that executives and industrialists attend.”

He recalled that he had joined the OPEC Secretariat about nine to ten months ago, and since then “we have been quite busy with a lot of research-focused materials, but, on top of that, we had to start this endeavour, which landed successfully.”

Qahtani was asked about the logistical challenges of putting on such an event, and stressed that it was not only a logistical one, but an intellectual challenge too. “We had to come up with a theme, as well as have the various sub-committees running after this huge endeavour.

“We had the technical committee looking after the technical programme with moving parameters, concepts, and we also had the logistical challenge on the organizing side that was assigned to the Seminar Organizing Committee,” which had to look after schedules, invitations, listings, venue, dealing with the consultants and more.

He commended the entire team that had been involved in putting the event together under the supervision of the OPEC Secretary General. “It was not only





*Ayed S Al-Qahtani.*



*Jubril Adewale Tinubu.*

the OPEC Secretariat, but the amazing and wonderful execution teams that range from our moderators, which were you (Eithne Treanor), John Deferios and Meghan O’Sullivan, as well as the consultants that worked with us, our coordination teams in OPEC Member Countries and participating non-OPEC countries. It was a huge success by all standards.”

“Every one of them contributed tremendously, not only in the hours that they put in every day, but in the emotion, as well as sacrificing their family time over the weekend, and so on. We have all learnt a whole lot in terms of teamwork and what we could do better. I am sure there will be a lot of lessons learnt, and we will take them with us to the next Seminar.”

He was then asked about returning to the day-to-day work of the Secretariat, and he noted that there is a lot going on in OPEC’s Research Division. “We offer a lot of technical wealth, free of charge, at our website [www.opec.org](http://www.opec.org). It is free, it is transparent and as impartial as it can be, and we avail a lot of this knowledge for academics, for international institutions.

“We see that as part of our dialogue and a way to give back to the community. We dialogue with sovereign governments, IOCs, NOCs and research institutions. We think that transparency and open communication channels between major consumers and producers helps both, not only to live daily in terms of their budget planning and facilitating for economic growth, but also in terms of the stabilization of the market in the medium and long term.”

## **Jubril Adewale Tinubu**

*Group Chief Executive, Oando PLC*

Jubril Adewale Tinubu, Group Chief Executive, Oando PLC, began the interview by providing some background on his company. He said that he founded the company 25 years ago. “We started out as a trading company and then we diversified into retail distribution by the acquisition of downstream assets in Nigeria and with ENI’s marketing company.

“We became a leading distributor of petroleum products in Nigeria, with over 500 retail stations. We are the pioneer distributor of gas. We built the first local distribution gas pipelines in Nigeria and then we went into the upstream. We are probably the leading indigenous producer in the country today, with close to 50,000 boe/day and our most recent deal was the \$1.6 billion acquisition of ConocoPhillips business units in Nigeria in 2014.”

He added that “we are partners with ENI in Nigeria, partners with Shell on one block, partners with ExxonMobil on another block, with Cosmos. So we have a very diversified portfolio and wonderful partnerships with the majors.”

Looking ahead, Tinubu said that the company’s focus is on the upstream. Production is key, he said. “Our primary focus is on driving up our production, and improving our production-to-reserve ratio, which is quite low. We have over 450 million barrels of reserves, which should drive more production.

“So our key is to raise investment and to

increase production. Nigeria offers a wonderful area of reserves which is untapped, with infrastructure; there is plenty of infrastructure — pipelines, fuel stations, export terminals. It is probably one of the most blessed geographies that has such a large amount of reserves located in a small geographical area, which is the Niger Delta.”

He added that there is always interest in expanding into other African countries. “We have looked at Mozambique, we have looked at Angola. But the reality is I think we see a lot of untapped resources in Nigeria. We would have to really exhaust Nigeria before we spend our resources on the other countries. So our focus is really Nigeria for now, although we are really keen to look at other opportunities in other places.”

### Sergey Vakulenko

*Head of Strategy and Innovations, Gazprom Neft*

Sergey Vakulenko, Head of Strategy and Innovations, Gazprom Neft, was asked about his company’s growth over the past few years. He said that the company “has grown by more than 80 per cent over the last eight years; it has been very steady growth of around eight to nine per cent/annum.”

This has been achieved through a two-prong strategy, he said. “On the one hand we have regenerated our brownfields through the introduction of modern technologies, drilling, well design, but also digitalization. And we have also launched a number of new fields that have created a great platform for our future growth.”

He added that the company is currently drafting a new strategy. “Our current strategy is until 2025, our new strategy is until 2030, but basically we have realized that we have entered the top league of the global oil industry. So, the plan now is to stay in this top league, which probably would mean that we would have to grow at the same pace as world demand is growing, which probably would be slightly slower than we have been doing before.”

In addition, he added, “the plan is also now to return cash to shareholders more than we have done in the past and we will pay more attention to become the global benchmark leader in such metrics as efficiency, profitability, technology advances and so on. And we have the base, the reserves on which to apply these

new competencies that we are developing to become maybe not the largest, but the most advanced oil company in the pack.”

He was also asked about the potential for shale oil and gas in Russia. He said that there is a large amount of low permeability reserves in Russia that could be addressed with the currently existing technologies. He added that “everyone has heard of the Bazhenov Formation, which is indeed probably the largest low-permeability source in the world.”

He noted, however, that there are many other formations, probably not as prolific, but easier to tap. “And while we have them and have not exhausted them; that is what we work on. What is the point in going after huge, but high-hanging fruit, if we have some smaller ones that are low hanging.”

While working on them, he said, we will hone and



*Sergey Vakulenko.*

improve the technology that we can later use to work on the Bazhenov. He stated that he saw the Bazhenov in around ten years, perhaps even less.

### Ihsan Ismaeel Al-Saade

*Director General, Basrah Oil Company, Iraq*

Ihsan Ismaeel Al-Saade, Director General, Basrah Oil Company said that his company now manages oil operation fields in Iraq, with production around





*Ihsan Ismaeel Al-Saade.*

3.2m b/d, and the plan is to increase this to 6.5m b/d by 2030.

He added that “this is why Basra is investing into research to develop CO<sub>2</sub> utilization and to develop gas injection. Our goal is to keep our business healthy and develop our environmental situation, mitigate emissions and make production more healthy and more friendly to the community.”

In this regard, we have two studies, he said, “one on the injection of associated gas and one on CO<sub>2</sub>. We issued the first version of our study. It is approved by the Ministry of Oil and we are now in the second phase — how we can apply and mitigate the costs.”

He said that the motivation for these technology breakthroughs was both the local environment and the Paris Agreement.

In terms of flaring, he stated that the Basra Oil Company and Basra Gas Company are looking to significantly increase their capacity to utilize gas, with a goal 4 billion standard cubic feet a day by 2025 to be primarily used in the community. “Our target is to flare no gas in 2025.”

### **Adnan Shihab-Eldin**

*General Director, Kuwait Foundation for Advancement of Sciences*

Adnan Shihab-Eldin, General Director, Kuwait Foundation for Advancement of Sciences, was asked

about the Foundation and said that it has been around for 42 years and is basically concerned with activities to advance science, technology and innovation in Kuwait, but with a focus on international cooperation to achieve that.

“Being a small country,” he said, “we need to cooperate with international partners, scientific institutions, academics, industry. And our activities are mainly to advocate for science among the young in Kuwait, to encourage them to learn about science.

“We send students all over the world from Kuwait, we support the private sector to become more innovative, and so international cooperation is sort of an anchor for our activity.”

In terms of the oil and gas industry, he said we do a lot of research that looks into how to make energy greener in the future, especially for oil producing countries, so we support research that reduces the carbon footprint of oil and gas, such as CCS. He adds that energy conservation is an issue that they are very much interested in.



*Adnan Shihab-Eldin.*

Shihab-Eldin was also asked about the attraction of the oil industry to young people, and he believed that the “attraction is still there.” He added, however, that “there is now competition from other attractive energy sectors, like renewables, which is becoming popular in the Middle East.”

There is nothing wrong with that, he adds. “I think we need all energy sources, and the young need to

be encouraged to pursue opportunities in all energy fields, including oil and gas, cleaner oil and gas, renewables and so on. So I think our job is to teach the young to be innovative, come up with ideas. That's really the future for our part of the world, and the world at large."

### Duco Drenth

*Director, New Technologies, Dietsmann*

Duco Drenth, Director, New Technologies, Dietsmann, was asked about new technologies, initially those related to carbon capture and storage (CCS).



Duco Drenth.

He said that he was already involved in CCS projects from 2001 to 2009, but what "failed a little bit was on the policy side." He added that they did not materialize "because of the lack of income so to say."

In talking about new approaches to CCS, he said one of the more innovative approaches in this regard is to use CCS in natural gas to convert into hydrogen. The hydrogen can then be shipped by boat or by pipeline to users, he added.

Another example, he said, "is to use it as a fertilizer in greenhouses. In the Netherlands, where I am from, we have quite a big network of CO<sub>2</sub> pipelines that are being brought to industry users where it is being used in their greenhouses."

Drenth said that he thinks "there are some positive developments nowadays, and with the Paris Agreement becoming firm, I think there is a new renaissance coming up on the use of CCS and also carbon capture, utilization and storage (CCSU).

In terms of the way forward, "what I learned from the projects I have been involved in is it is a collaborative thing." He underlined the need for industry and government to be involved. "It is a complex playing field and that is why it is also complex to realize these projects. But I think the environment nowadays is becoming more positive to overcome these hurdles."

In terms of other technologies, he mentioned robots and digitalization, and said that maybe in the next five or maybe ten years we will see quite a lot of changes. He also specifically highlighted blockchain technology, which, two years ago, nobody was talking about. "Blockchain is also a potential changer in the world, and our industry."

### Helima Croft

*Global Head of Commodity Strategy, RBC Capital Markets*



Helima Croft.

Helima Croft, Global Head of Commodity Strategy, RBC Capital Markets, was asked about the importance of the 'Declaration of Cooperation' in terms of global dialogue.



She said that “one of the things that has been very important about the ‘Declaration of Cooperation’, and also what the Secretary General has done, in sort of being the diplomat for OPEC, has been the talking to consumers, the talking to investors.

“It has really made the case that OPEC is willing to meet everyone half way in a dialogue. They are willing to sit down, hear from the other side and engage in constructive diplomacy.”

Croft was also on a Seminar panel focused on investment, and she stressed that “one of the big themes today is how much investment has come out of this market and how much do we need going forward to ensure that we have stable supply on the market.”

She said that it is important to look at the key ingredients for investments. She said she talked about investors having the right fiscal and tax regime, as well as looking at issues of above-ground stability.

In terms of investments today, “right now it is returning, but it is returning to short-cycle US projects. So how do we get enough investment into long lead time projects? That is where I think there is concern about that supply gap.”

## Barbara Shook

*Energy Journalist and Analyst, Winner of OPEC Award for Journalism 2018*

Barbara Shook, the winner of the OPEC Award for Journalism 2018, said that she was extremely excited about the award. She said that “it had come as a complete surprise. The OPEC Secretary General had asked me to come to the Conference, but there was no hint at that time that I was going to be receiving an award.”

Shook recalled her long history of reporting on OPEC, and said that “Barkindo and I actually came to our first OPEC meeting together 32 years ago, when he was deputy to the late Rilwanu Lukman. I was then working for the *Houston Chronicle*. To say I was excited would be an understatement. We got to know each other back in those days.”

In looking at how OPEC has changed, Shook said that it is “a much more professional organization. It is much more intertwined with the international industry. The often adversarial relationship that OPEC

sometimes had with the international oil companies and with governments, those have gone away in large part.”

She said the OPEC Seminar was a good example of this, and highlighted the number of people from a wide range of countries taking part. “OPEC is truly an international organization and even more than that it’s an international economic organization.”

In this regard, she also noted the importance of the cooperation that came to the fore at the end of 2016, between OPEC and non-OPEC nations in the ‘Declaration of Cooperation’.



Barbara Shook.

In terms of her career in journalism and the petroleum industry, she said that she grew up around the industry. “Actually on the downstream side, my father built power plants for chemicals and refineries. That was my initial exposure as a toddler; he would take me out to the job site.

“I would have to sit in the truck and watch, but it practically got into my blood as a newborn. So this petrochemical industry rebirth that we have had in the US, it opened up pathways in my mind that I had not thought about since I was a small child, and I have really enjoyed seeing that happen.”

# Sponsors and exhibitors propel Seminar to new heights

*The 7<sup>th</sup> OPEC International Seminar was supported by the generous contributions of many leading oil and energy companies who participated either as a sponsor, exhibitor, or both. More than 20 companies in total, including OPEC Member Country National Oil Companies, Oil Ministries, International Oil Companies and others, helped reflect OPEC's focus on supporting dialogue and cooperation. Hind Zaher, PR Specialist, PR & Information Department, reports on their participation, and their thoughts on the event.*



Qatar Petroleum, Qatar.



ADNOC and Mubadala, United Arab Emirates.



Nigerian National Petroleum Corporation, Nigeria.

The exhibition area of the 7<sup>th</sup> OPEC International Seminar was officially opened on June 20, 2018, in a formal ribbon-cutting ceremony, presided over by Karin Kneissl, the Republic of Austria's Minister for Europe, Integration and Foreign Affairs. She was joined by other officials and dignitaries from OPEC Member Countries and the OPEC Secretariat.

During the two-day Seminar, more than 900 delegates were given the opportunity to visit the exhibition area and benefit from the vast information and documentation provided by each sponsor and exhibitor. Attendees could learn about what companies are doing and gain a better understanding of their scope of work and the energy industry as a whole.

## Sponsors

The generous contribution of the event's sponsors was also welcomed by OPEC, with a variety of promotional opportunities available, prior, during and also after the event.

Qatar Petroleum generously sponsored the event as the only Diamond sponsor, with the largest stand in the centre of the exhibition area. The Abu Dhabi National Oil Company (ADNOC), Mubadala, the Nigerian National Petroleum Corporation (NNPC), Eni and OMV all kindly contributed as Platinum sponsors.

The Seminar provided a special platform due to the large amount of sponsors and exhibitors who not only wanted to showcase their work and latest technologies,



but also to reflect on the success of the ‘Declaration of Cooperation’ over the past 18 months, through their support of an event that is not only for OPEC Member Countries, but for each participating country in the ‘Declaration’.

There were also a number of Gold sponsors who offered their welcome support; Kuwait Petroleum Corporation (KPC), Saudi Aramco, Hess Corporation, Oando, Sahara Group and Total. All of them effectively contributed, either through an exhibition booth or through their CEO’s participation as a speaker.

Additionally, eight others kindly co-sponsored as Silver sponsors: the Ministry of Hydrocarbons of the Republic of Ecuador; Iraq’s Ministry of Oil; PDVSA,

Equatorial Guinea, Centurion Law, GOFSCO, ONGC Videsh Ltd, and Socar were also exhibitors.

In addition, OFID, OPEC’s sister organization, which works in cooperation with developing country partners and the international donor community to stimulate economic growth and alleviate poverty in disadvantaged regions of the world, and which has a longstanding presence at OPEC Seminars, was present.

According to OFID: “OFID’s presence as an exhibitor during this year’s Seminar aimed to further highlight the international aid efforts of its Member Countries, which are also OPEC Member Countries.”

The representatives of OFID went further to explain



ENI, Italy.



OMV, Austria.

Atlas Oronto Petroleum; BHGE; BP; Crescent Petroleum; and Lukoil.

## Exhibitors

Moreover, for the first time since the OPEC International Seminar was inaugurated, and with the expansion of OPEC’s dialogue and cooperation, the Organization also offered the opportunity for companies to participate solely as an exhibitor. Between the luxurious ‘Zeremoniensall, Wintergarten and Marmor Saal’ of the Hofburg, exhibitors built state of the art booths reflecting their corporate identity and scope of work.

Alongside many of the sponsors that had exhibition booths, the Ministry of Industry, Mines & Energy of

that: “The 7<sup>th</sup> OPEC International Seminar was again a successful event that brought together a variety of stakeholders with a view to enhance dialogue and cooperation. OFID has actively participated in all of the previous seminars as the sister organization of OPEC. This year was no exception, as OFID’s Director-General Suleiman J Al-Herbish spoke during the session ‘Energy transition’.”

He used the opportunity to remind people that the energy transition “must not leave behind those billions who live without access to reliable, sustainable and affordable energy services.” The theme of this year’s Seminar, ‘Petroleum: cooperation for a sustainable future,’ is especially close to OFID’s mandate and vision, which strives for the alleviation of poverty in all of its forms, particularly energy poverty.”



## Thanks

The Seminar concluded with many positive impressions from participants, including the sponsors and exhibitors, who thanked OPEC Secretary General, Mohammad Sanusi Barkindo, and the OPEC Secretariat, for the excellent and historic event.

In return, the Secretary General said it was an event that would not have been as successful without the vital

experience and impressions from this year's sponsors and exhibitors:

"We would like to thank OPEC on behalf of Mubadala and ADNOC for being here ... it has been a fantastic Seminar, we learned a lot and look forward to the next one.

"Mubadala's first time participation at the 7<sup>th</sup> OPEC International Seminar was a fruitful one, as the Seminar brought together industry leaders and influ-



Saudi Aramco, Saudi Arabia.



Sahara Group.



Total, France.



Crescent Petroleum.



Ministry of Industry, Mines and Energy, Equatorial Guinea.



Socar, Azerbaijan.

support of our valued sponsors and exhibitors, who have "faithfully answered our call for support and done an outstanding job in ensuring all our events and side-events have been exquisitely executed."

He added that they have made an immense contribution to this historic event and "we are very appreciative to all corporate sponsors and exhibitors of the 7<sup>th</sup> OPEC International Seminar."

## Impressions from sponsors and exhibitors

The following comments reflect some of the

encers to engage in open dialogue towards increased cooperation and collaboration in ensuring market stability.

"We were pleased to play an active role in this conversation through Mubadala's CEO of Petroleum & Petrochemicals, Musabbeh Al Kaabi who took part in the 'Energy Cooperation' session. Al Kaabi emphasized the importance of embracing new technology and working together as an industry so that the necessary investments are made to meet growing demand.

"As a co-host of the OPEC Gala Dinner, Mubadala was pleased to contribute in showcasing the UAE's heritage, culture and economy to the Seminar's senior international audience, including official government



representatives, peers in the oil and gas industry, business partners, and other key stakeholders”

*ADNOC and Mubadala (UAE)*

“... we feel we are part of OPEC and happy to be here and we will come around as long as OPEC exists.”

*NNPC (Nigeria)*

leaders and participants at the Seminar. This further reinforces our growing global status as a foremost energy brand out of Africa to the world.”

*Sahara Group, Bethel Obioma,  
Head of Corporate Communications.*



*Ministry of Hydrocarbons, Ecuador.*



*PDVSA, Venezuela.*



*Gas & Oil Field Services Company, Kuwait.*



*ONGC Group, India.*



*OPEC Fund for International Development (OFID).*



*Centurion Law Group.*

“The OPEC International Seminar is virtually unparalleled in its capacity to invoke the most pertinent and pressing conversations concerning the subject of oil. It also facilitates policy making and galvanizes all stakeholders into action. Sahara is proud to play its part in ensuring the success of the seminar and looks forward to positive outcomes from the parley.

“Sahara Group was quite pleased to see how the Seminar worked towards galvanizing all stakeholders into action towards a renewed passion for upholding the ‘Declaration of Cooperation’.

“We believe the Seminar further enhanced our brand positioning and awareness on a global stage, given the interaction we had with visitors to our stand and discussions with various OPEC

“We are proud to have sponsored the OPEC Seminar this year. This was also a particularly notable year for Crescent Petroleum as the UAE assumed the Presidency of OPEC, and celebrated the 100<sup>th</sup> year of the birth of Sheikh Zayed Al Nahyan, the UAE’s founding father. Our sponsorship this year was an expression of our support for the Seminar and its organizers, and a reflection of the value we would derive from taking part and sponsoring the event.

“The Seminar offered a unique opportunity to engage and connect with decision makers, policymakers and influencers from major IOCs, NOCs and the media, while providing ample opportunities for knowledge transfer ... the Seminar was well organized and well attended. We look forward to attending future seminars and commend the Secretary General and the entire OPEC Secretariat for organizing such a successful event.”

*Crescent Petroleum.*



# OPEC 2018 Award winners honoured at Gala Dinner

*At a sumptuous Gala Dinner and Awards Ceremony held at Vienna's City Hall at the end of day one of the 7<sup>th</sup> OPEC International Seminar, fellowship and expressions of gratitude, as well as art, music and poetry, marked the celebration of this year's two OPEC Award recipients, as well as a number of other special awards.*



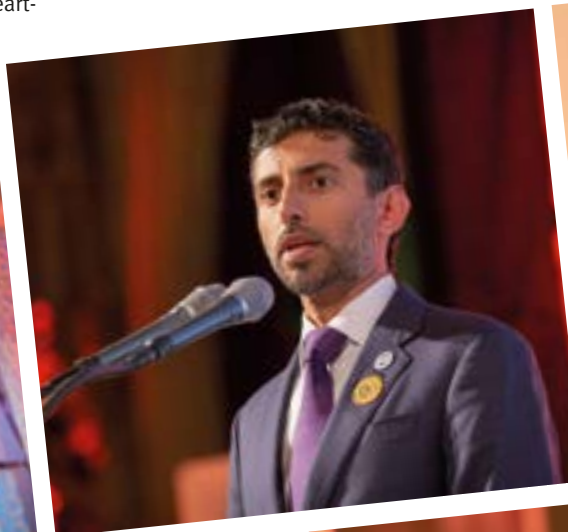


Hosted by OPEC and the Ministry of Energy and Industry of the UAE, and supported through the generosity of ADNOC and Mubadala Investment Company, also of the UAE, the event brought together the keynote speakers and other high-level guests at the OPEC Seminar, as well as other energy stakeholders and OPEC and Member Country officials.

With the participation of academics, ministers, officials and representatives from organizations and companies from across the energy world, the evening — which began with a formal, opening reception in one of the main halls of the Rathaus — was marked by fellowship, a bit of musical and artistic entertainment, as well as heart-

graciously and elegantly welcomed all guests and diners, and recognized the sponsors of the evening. A short video was then introduced which gave an overview of the growth, development and global success of the UAE over the decades.

A speech welcoming everyone to the dinner was then made by Suhail Mohamed Al Mazrouei, Minister of Energy and Industry of the UAE and President of the OPEC Conference in 2018. Recognizing the large number of ministers, industry officials and other leaders, he underscored the importance of the Seminar as one of the largest industry gatherings.



felt tributes to various distinguished guests.

### An official welcome

As guests filed into the main dining hall of the historic building, a video honouring the 7<sup>th</sup> OPEC International Seminar, and paying tribute to the sponsors of the Gala Dinner, was shown on screens around the hall. Once everyone was seated, a Master of Ceremony, Saoud Al-Kaabi, a well-known media personality in the UAE and the surrounding region,



He also noted the inclusion of so many different stakeholders from varying fields, professions and countries. This, he said, is what makes “OPEC of today” different from





*HRH Prince Abdulaziz Bin Salman Bin Abdulaziz Al Saud (c), Minister of State for Energy Affairs, Saudi Arabia; Suhail Mohamed Al Mazrouei (l), UAE Minister of Energy & Industry and President of the Conference 2018; and Mohammad Sanusi Barkindo (r), OPEC Secretary General.*



*Dr Mana Saeed Otaiba (c), former Minister of Petroleum and Mineral Resources of the UAE; Suhail Mohamed Al Mazrouei (l), UAE Minister of Energy & Industry and President of the Conference 2018; and Mohammad Sanusi Barkindo (r), OPEC Secretary General.*

the “OPEC of yesterday.” He elaborated: “OPEC of today is about inclusiveness. It is about transparency. And it is about working together to ensure that we deliver the ... valuable resources that we are entrusted to develop as well as supply the industry and the world economy.”

The Minister also made a nod to the coming meetings scheduled for the days after the conclusion of the Seminar — such as the Joint Ministerial Monitoring Committee (JMMC) Meeting, followed by the 174<sup>th</sup> Meeting of the OPEC Ministerial Conference, and the 4<sup>th</sup> OPEC and non-OPEC Ministerial Meeting which would follow that. “I think this is probably the busiest ever week — in the recent history — that we have put together,” he said.

In additional comments, Al Mazrouei spoke of the future of the industry, the impact of technologies, and about the role and importance of renewables. “We need also to not to think of the other energies as our competitor or replacement of fossil fuels,” he said. “I think we need all forms of fuel.”

## Royal honours

The Master of Ceremonies then invited Saudi Arabia’s HRH Prince Abdulaziz Bin Salman Bin Abdulaziz Al Saud, Minister of State for Energy Affairs of the Kingdom of Saudi Arabia, to the stage to offer some remarks. “I would not have chosen a different career,” he said. “And I will always cherish the 31 years of being engaged at OPEC.”

Al Mazrouei, joined by the OPEC Secretary General, Mohammad Sanusi Barkindo, then proceeded to give a special award to HRH Prince Abdulaziz for his tireless efforts in recent years in support of OPEC and on behalf of his important work to strengthen and enhance the ‘Declaration of Cooperation’. The UAE Minister of Energy and Industry then asked for everyone to honour him further with a round of applause.

## Special guests

Omar Al Rawi, a member of the Vienna City Council, and who is originally from Iraq, also offered a few remarks as the representative of the Mayor and Governor of Vienna. Afterwards, a short video tribute to Dr Mana Saeed Otaiba, former Minister of Petroleum and Mineral Resources of the UAE, was shown to all guests on large screens at the front and back of the hall. It portrayed him during his days as an official for his Member Country, deep in negotiations and in technical meetings.

A prolific poet, Dr Otaiba offered some brief remarks





afterwards, highlighting some moments of his career and thanking those who had worked with him in the past and to those who were in attendance that evening. Al Mazrouei then honoured him, presenting Dr Otaiba with a special award, alongside OPEC's Secretary General.

### Artistry and music

There was then some wonderfully creative entertainment — first, in the form of music, which began softly in the background, but shifted to a lone musician at the front of the room near the podium. Next to the musician was a lectern at which stood a young woman, an artist in a hijab, standing over an illuminated table on which she would pour sand and make 'sand drawings' that were projected onto a large screen.

Using her fingers and sides of her hand she would make lines and shapes, landscapes, iconic events and incredible portraits of people. Every now and then she would scatter additional sand to cover up her designs and start anew, or creatively turn one image into another with well-placed lines and curves and strategic brushing. These images mesmerized and enchanted diners, who then turned to their meals and enjoyed conversation with those around them.

### Awards ceremony

After a short interlude, the floor was turned over to the OPEC Secretary General, who paid tribute to those in attendance — before introducing the main event of the evening, the announcement of the recipients of the two 'OPEC Awards'.

The Secretary General described the history and importance of the two Awards. "Many years ago, to be precise, in 2004," he said, "OPEC decided to establish

the Research Award in order to acknowledge and celebrate excellence in the field of research, especially in the academia." OPEC did this to recognize the contributions of research to the industry. "We are both consumers of the products of research, as well as a source of products of research," he noted. The Organization then also decided to institute a Journalism Award.

In the background, an announcer read the profile of OPEC's two 2018 Award winners: Professor Bassam Fattouh and Barbara Shook, the former recognized for his ongoing academic and research work, and the latter for her life-long commitment to energy and oil market journalism.

The Secretary General was then joined by HRH Prince Abdulaziz and Al Mazrouei to greet each Award recipient in turn. They were each presented with crystal trophies and were given an opportunity to make a few remarks.

### Award origins

OPEC established the two Awards to acknowledge and celebrate the past efforts of researchers and journalists.

The 'Award for Research' was first made in 2004 at the 2<sup>nd</sup> OPEC International Seminar, which was held in Vienna, in the September of that year. The 'Award for Journalism' was established in 2009.

Winners of both Awards have typically exhibited and demonstrated a high level of objectivity, integrity and innovative thinking throughout their careers.

The selection process for Award recipients is the responsibility of two high-level committees of research experts, and media and journalism professionals, whose knowledge and experiences give them unique insights into their respective fields. This enables them to make sound judgments on the merits, contributions and achievements of Award nominees.







The gala dinner saw some wonderfully creative entertainment in the form of music and a young woman, an artist, standing over an illuminated table on which she would pour sand and make 'sand drawings' that were projected onto a large screen.



## Winner of the 2018 OPEC Award for Research

# Professor Bassam Fattouh



*Professor Bassam Fattouh (second r), Professor at the School of Oriental and African Studies, and Director of the Oxford Institute for Energy Studies; HRH Prince Abdulaziz Bin Salman Bin Abdulaziz Al Saud (second l), Minister of State for Energy Affairs, Saudi Arabia; Suhail Mohamed Al Mazrouei (r), UAE Minister of Energy & Industry and President of the Conference 2018; and Mohammad Sanusi Barkindo (l), OPEC Secretary General.*

### *The citation read as follows:*

The 'OPEC Award for Research' was established to honour analysts and researchers who have devoted their careers to the objective study and balanced analysis of the energy sector — to recognize men and women whose in-depth knowledge of oil has contributed to a better understanding of the sector.

This year's recipient of the 'OPEC Award for Research' is an outstanding example of this. A world-renowned energy expert, he is a specialist in international oil pricing systems; oil price dynamics; and supply security, particularly in the Middle East.

He has published many articles on topics related to oil and natural gas, and has been published in academic and professional journals around the world. In the 20-year period from 1996 to 2017, he published 164 professional papers, and was cited more than 2,800 times by other academic researchers.

This year's award-winner also works as a consultant to governments and oil companies. In 2010, he served as a member of an independent advisory group to the 12<sup>th</sup> International Energy Forum Ministerial Meeting in Cancún, Mexico.

This evening's award-winner completed his undergraduate studies at the American University of Beirut and pursued graduate work at the School of Oriental and African Studies at the University of London, from which he received his Ph D in Economics.

He is currently a Professor at the School of Oriental and African Studies and also serves as the Director of the Oxford Institute for Energy Studies.

It is with great pleasure and deep admiration that the respected international scholar, Professor Bassam Fattouh, is the proud recipient of the 2018 'OPEC Award for Research'.



## Winner of the 2018 OPEC Award for Journalism

## Barbara Shook

Barbara Shook (second r), Energy Journalist and Analyst and former Houston Bureau Chief, and Senior Reporter-at-Large and Analyst at the Energy Intelligence Group; HRH Prince Abdulaziz Bin Salman Bin Abdulaziz Al Saud (second l), Minister of State for Energy Affairs, Saudi Arabia; Suhail Mohamed Al Mazrouei (r), UAE Minister of Energy & Industry and President of the Conference 2018; and Mohammad Sanusi Barkindo (l), OPEC Secretary General.

*The citation read as follows:*

The ‘OPEC Award for Journalism’ was established in 2009 to recognize the work of journalists whose career has been devoted to balanced and objective reporting of the energy sector — and of the oil industry, in particular.

This year’s Award is being given to a journalist and writer whose work over nearly four decades has been characterized by insightful reporting, rigorous analysis, and a profound understanding of the economics of the industry.

In her professional efforts to contribute to an improvement of the public’s understanding of the oil industry, tonight’s Award recipient has consistently demonstrated a command of the facts, great attention to detail, and a dedication to the fundamental task of reporting for the benefit of the general public.

Over the years, she has earned the respect and

admiration of others for broad industry knowledge, her intuitive grasp of the oil market, and her constant professionalism.

She has worked as an Energy Writer at *The Houston Chronicle*, served as Associate Editor and Houston Bureau Chief of *Natural Gas Intelligence*, and was the Senior Reporter at *Pasha Publications/Gas Daily*. She is also the former Houston Bureau Chief, and Senior Reporter-at-Large and Analyst at *Energy Intelligence Group*.

Tonight’s award recipient is well-known within the industry. Her diligent work, and balanced and objective reporting has set a high standard for other energy reporters.

It is with great pleasure that Barbara Shook is the recipient of this year’s ‘OPEC Award for Journalism’. 🌟



# Ministerial recognitions



*Special gifts, courtesy of Jabbar Ali Hussein Al-luiebi, Minister of Oil, Iraq, the birthplace of OPEC, were presented to each of the 24 Ministers representing the 14 OPEC Member Countries and the ten non-OPEC countries participating in the 'Declaration of Cooperation'.*

The Gala Dinner and Awards Ceremony ended after several hours of wonderful food and hospitality. During a group photo, special commemorative gifts — custom-made decorative silver vases, courtesy of Iraq — were also presented to each of the 24 Ministers representing the 14 OPEC Member Countries and the ten non-OPEC countries participating in the 'Declaration of Cooperation'.

The gifts were both emblematic of the Organization, and reflective of the history and culture of Iraq. OPEC's esteemed colleagues from Iraq arranged to have a decorative silver vase made for each of the countries participating in the 'Declaration of Cooperation'.

Decorated on two sides with the 'OPEC logo',

its other two sides evoked the history of Ancient Mesopotamia through a 'relief' depicting the famed 'Ishtar Gate', which was originally the 8<sup>th</sup> gate of the city of Babylon, and a 'relief' depicting the 'Golden Lyre of Ur', a famed musical instrument dating back more than 4,000 years.

The evening's Ministerial gifts were a small token of appreciation for the commitment shown by all 24 OPEC and non-OPEC countries during the past 18 months.

And those who attended the Gala Dinner and Awards Ceremony agreed that it was a magnificent way to pay tribute to outstanding leaders and thinkers, while also recognizing all those who are part of OPEC's extended worldwide family.



# Students make their mark at the 7<sup>th</sup> OPEC International Seminar

*It is not unusual for OPEC to engage with young people in many of its outreach activities, and this was apparent at the 7<sup>th</sup> OPEC International Seminar. The Organization extended invitations to its Member Countries, as well as its host country of Austria, to nominate qualified students to attend the Seminar. Hind Zaher, PR Specialist, PR & Information Department, reports on their participation, and their thoughts on the event.*

OPEC has always recognized the important role of youth in shaping the future of the oil industry. The Organization and its Member Countries have continually supported younger generations with many educational and training activities, offering them a wide range of opportunities.

The 7<sup>th</sup> OPEC International Seminar provided a further occasion to engage with students, with participants nominated from its Member Countries and Austria. Moreover, the OPEC Secretariat went further on this occasion, providing a unique opportunity to many other students who could not be nominated this time, by offering them a special student's fare.

A total of 18 international students participated in

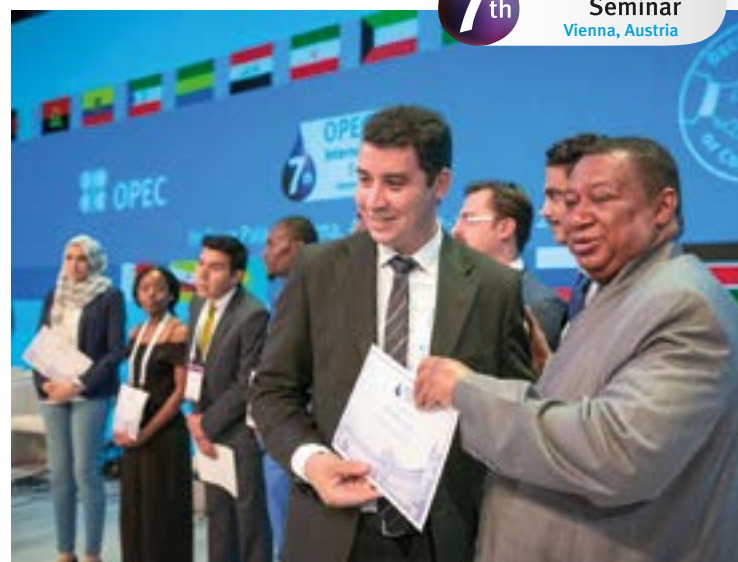
this year's Seminar. The goal was not only to help interested students learn about the oil industry, but also to engage them in the many challenges facing global energy markets. This included creating a better understanding of the important role that OPEC has played, and continues to play, in supporting stability in the global oil market, for example, through the historic 'Declaration of Cooperation'.

In a personal letter of gratitude for the invitation, the students thanked the OPEC Secretariat and the OPEC Secretary General, Mohammad Sanusi Barkindo, for "supporting the youth and getting them involved in this important global industry."



Students invited to attend the Seminar, pictured with Mohammad Sanusi Barkindo, OPEC's Secretary General, and Hind Zaher, OPEC's PR Specialist.





The Secretary General, in turn, acknowledged the importance of the student's participation in his concluding remarks to the Seminar. In these, he stated that given the "interaction with all of you over the last day and a half, especially the young students and leaders of tomorrow, I bound with optimism that even though we have achieved so much in the past, our industry's best days are ahead of us."

## Full schedule

The students were given the opportunity to listen to a plethora of viewpoints, to help better understand the oil market from a variety of perspectives during the Seminar's many different sessions. They unanimously expressed their admiration of the Organization's "leading role in supporting dialogue and cooperation."

During their stay in Vienna, the students not only attended all the Seminar sessions, which featured more than 80 high-level speakers from all over the world, they were also able to attend the side events of the Seminar, including the Gala Dinner, which took place on June 20, 2018, at the City Hall of Vienna.

The Seminar also provided the students with professional networking opportunities and first-hand talks with Ministers, CEOs of national and international oil companies, analysts, researchers and other attendees. Moreover, the students agreed that it was also a great opportunity to "meet other students and create new friendships."

For them, the Seminar was also about "appreciating" the role of OPEC and the "importance of crude oil." Dr Magda Mirescu, one of the nominated students

representing Austria, said that "it is very difficult, if not impossible, to separate everything from oil. It influences our daily lives."

During their participation, the students also emphasized that "it is our responsibility — as young professionals coming from this industry — to develop the future new technologies that will keep exploiting the oil fields, but in a much more environmentally friendly way."

The students who were sponsored by OPEC to attend the Seminar were:

Ms Imene Ziane, Algeria  
Ms Luisiana Isabel Neto dos Santos, Angola  
Jhon Brayan Villarreal, Ecuador  
Santiago Martin Nve Nzang, Equatorial Guinea  
Bechir Pascal Pemengoye, Gabon  
Hamed Farnam, Iran  
Mohaned Mohammed Mirset, Libya  
Umar Farouk Musa, Nigeria  
Jaber B Nasser S Al-Ahbabi, United Arab Emirates  
Cesar A Fernandez, Venezuela  
Dipl Ing Mostafa Borji, Austria  
Dipl Ing Abdelfattah Lamik, Austria  
David Petutschnig, Austria  
Dipl Ing Dr Magda Mirescu, Austria  
Kabir Sokullu, Austria

Students who attended the Seminar with the special student's fare were:

Theodosios Perifanis, Greece  
Almaz Abildayev, Kazakhstan  
Ms Laudedale Ladele, United Kingdom

*All students received  
certificates of  
attendance from  
Mohammad Sanusi  
Barkindo, OPEC  
Secretary General.*



## Student reflections

*The Seminar touched each and every student in a different way. They left the Seminar with some unforgettable experiences and with messages that they were keen to share:*



*"Thank you for having us. What I have learned so far from the two days is way beyond my imagination ... the growing international demand for oil should lead producers and consumers to cooperate in order to avoid volatility in the oil market. Training new generations is therefore key to make both our industry and our organization sustainable."*

*Bechir Guivence Pascal Pemengoye, Gabon*

*"An exchange of knowledge and experience by policy and market setters. A two-day value adding seminar."*

*Theodosios Perifanis, Greece*

*"I can describe the experience as a celebration between Member Countries, non-OPEC countries, producers and*

*consumers, in which the commitment to cooperation was the main protagonist."*

*Cesar Fernandez, Venezuela*

*"I am really honoured to attend this special conference that aims to achieve the stability of the oil market."*

*Eng Jaber Alahbabi, United Arab Emirates*

*"The OPEC Seminar is indeed a premier event on the world energy calendar. The Seminar motivated me to work harder if I am to work in the oil and gas industries and to learn more about the technical aspect of the industry and contribute immensely towards the development of the sector. I am grateful to my esteemed country Nigeria for nominating me to attend the Seminar. I vividly wish to thank the OPEC family not only for organizing this outstanding and marvelous Seminar, but also for inviting students from various countries to learn from the Seminar. Finally, my profound gratitude goes to the OPEC Secretary General, Mohammad Sanusi Barkindo, for his tireless and exquisite efforts in moving this Organization forward."*

*Umar Farouk, Nigeria*

*"The OPEC Seminar was a valuable experience for my professional future."*

*Hamed Farnam, Iran*

*"I found the Seminar professionally and eminently good, both in content, as well as in the organization."*

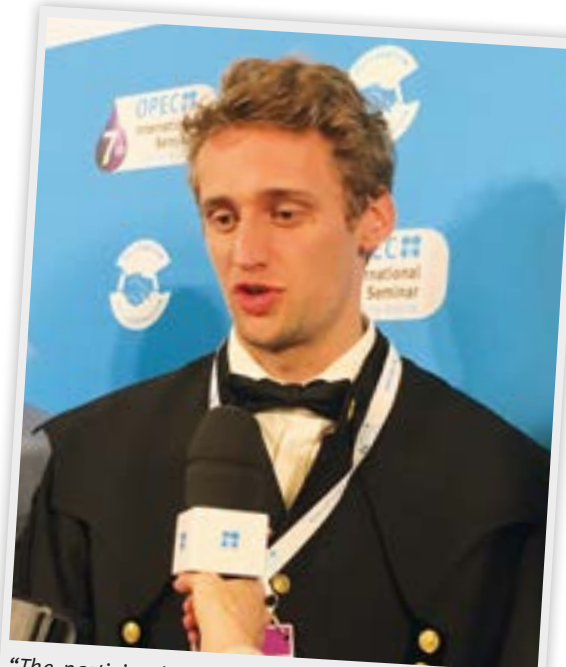
*Abdelfattah Lamik, Austria*





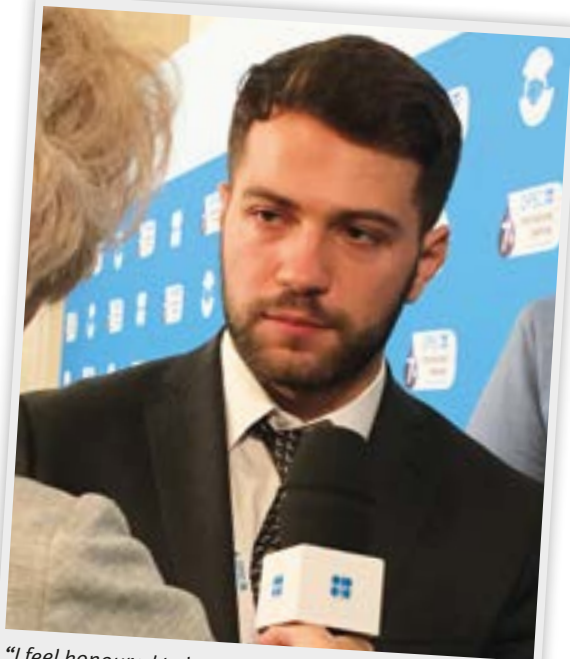
*"What I enjoyed most about this Seminar was that it brought together producers, consumers and investors, who can have the power to change both demand and supply sides ... they were brought together to discuss what is best for the future."*

*Dipl Ing Dr Magda Mirescu, Austria*



*"The participation of all students was only possible through the great efforts and care of OPEC staff ... the opportunity to listen to in-depth discussions and personally talk with the key figures in the energy industry is unique to the extraordinary setting of the OPEC International Seminar ... with our attendance, OPEC demonstrated its commitment to foster the development of the next generation of industry leaders."*

*David Petutschnig, Austria*



*"I feel honoured to have had the opportunity to take part in this Seminar, and I am very happy that we could learn from such aspiring persons that we heard on the stage ... the whole Seminar was very solution-oriented."*

*Kabir Sokullu, Austria*

In acknowledging their participation, the students also received a certificate of attendance from the Secretary General, where a group photo was also captured on stage.

In return, the students did not want to leave without a final message thanking OPEC and their own individual Member Countries, as well as the host country of Austria, for nominating them to attend the 7<sup>th</sup> OPEC International Seminar.

This was delivered, on behalf of all the students, by Imene Ziane of Algeria, who said: "We have learnt a lot, made new friends and will leave with many great memories. It has been a truly incredible experience. We hope that we can carry the torch that you are all carrying today, into a bright and prosperous future for this industry."



# *A media welcome ...*





On the eve of the 7<sup>th</sup> OPEC International Seminar, the Organization held an informal media reception at the elegant Wiener Börsensäle, just across the road from the OPEC Secretariat. With a personal welcome from the OPEC Secretary General, **Mohammad Sanusi Barkindo**, the event turned out to be a resounding hit for all those in attendance. The OPEC Bulletin provides some images from the event.





# *Impressions from the Seminar ...*

















# Nigeria Oil and Gas: reflections on the past, present and future

Mohammad Sanusi Barkindo (l), OPEC Secretary General, delivers his address at Nigeria Oil and Gas in Abuja, Nigeria; on stage with Dr Emmanuel Ibe Kachikwu, Nigeria's Minister of State for Petroleum Resources.



*The genesis of the Nigeria Oil and Gas Conference can be traced to a conversation in a café in London. It was there that two titans of the petroleum industry, Dr Alirio Parra, former Minister of Energy and Mines of Venezuela, and Dr Rilwanu Lukman, former OPEC Secretary General, Nigerian Presidential Adviser and Minister of Petroleum Resources, evolved the idea to bring the industry's leading minds to Nigeria for a high-level conference and exhibition. Now in its seventeenth year, the Conference has gone from strength-to-strength. The OPEC Bulletin reports on the 2018 edition.*



**B**ittersweet was the repeated word that speakers used to describe their feelings about the 2018 Nigerian Oil and Gas Conference. This was the first edition of the conference since the sad passing of Dr Alirio Parra in March of this year.

OPEC Secretary General, Mohammad Sanusi Barkindo, and Wemimo Oyelana, Vice President of

*When to the sessions of sweet silent thought  
I summon up remembrance of things past,  
I sigh the lack of many a thing I sought,  
And with old woes new wail my dear time's waste:  
Then can I drown an eye, unus'd to flow,  
For precious friends hid in death's dateless night,  
And weep afresh love's long since cancell'd woe,*



Production, CWC Group Ltd, both paid moving tributes to the OPEC legend and industry icon. Barkindo said: “Although a Venezuelan, Dr Parra was truly a global citizen and cared passionately about Nigeria. He was so concerned with this country’s welfare that he was gladened by our successes as much as any Nigerian patriot. I know many of you considered his passing as a loss of one of our own.”

In encapsulating the loss felt for Dr Parra’s sad passing, while at the same time expressing the great joy in celebrating his momentous life, Barkindo recalled the sonnet of William Shakespeare:

*And moan th’ expense of many a vanish’d sight;  
Then can I grieve at grievances foregone,  
And heavily from woe to woe tell o’er  
The sad account of fore-bemoaned moan,  
Which I new pay as if not paid before.  
But if the while I think on thee, dear friend,  
All losses are restor’d, and sorrows end.*

The success of the Nigeria Oil and Gas Conference and Exhibition remains ones of the abiding tributes to Dr Parra’s rich legacy. It was one that spanned many decades, and included the establishment of OPEC at the historic Baghdad meeting in 1960.

*Dr Emmanuel Ibe Kachikwu (third r), Nigeria’s Minister of State for Petroleum Resources; Mohammad Sanusi Barkindo (r), OPEC Secretary General; and Dr Maikanti Baru (third l), Group Managing Director of the Nigerian National Petroleum Corporation (NNPC); pictured with other officials attending the conference.*

## Current oil market situation

Barkindo also took the opportunity to update the conference on recent developments in the global oil market, and to emphasize the pivotal role that oil plays in our everyday lives. He said that “oil is so intrinsic in daily life that we sometimes overlook the fact that our industry has an impact on the individual experiences of billions of people.”

With this in mind, he stressed the responsibility of producers in contributing to oil market stability. “Volatility is a devastating disincentive for investment, which is the lifeblood of our industry and essential for ensuring adequate supply in the future,” said Barkindo.

The Secretary General outlined the desperate state of the market in 2016 when the negotiations that culminated in the landmark ‘Declaration of Cooperation’ began. He also described how the 174<sup>th</sup> Meeting of the OPEC Conference and the 4<sup>th</sup> OPEC and non-OPEC Ministerial Meeting, held on June 22 and 23, 2018, respectively, reaffirmed the ‘Declaration of Cooperation’ partners’ unshakeable resolve to act in the interests of producers and consumers, when participating countries agreed to strive to adhere to the overall conformity level of 100 per cent for the remainder of 2018.

## Transformational

“The adjective which most appropriately describes the impact the ‘Declaration of Cooperation’ has had on the global oil market is ‘transformational,’” continued Barkindo. He outlined the following points in support of that assertion:

- It has caused a significant change in industry-wide and public perceptions of OPEC. The Organization has repeatedly demonstrated its credentials as a body committed to international cooperation, working with other producers, honouring its commitments and promoting mutual respect among all nations.
- Bringing together 25 sovereign producing nations is unparalleled in the history of the oil industry. The ‘Declaration of Cooperation’ strategic partnership constitutes a fundamental and essential feature of the ‘new world of energy.’
- A long-absent element of stability has been reintroduced to the market — industry optimism and confidence abounds.
- It is a transparent and fully accessible platform; open

to all producers. It has evolved into a broader continuity partnership that can work for everyone, across all timeframes, to help deliver the sustainable market stability we all desire.

- The importance of the ‘Declaration’ has also received backing from other producers, as well as from consumers.

Barkindo concluded by encouraging all producers to consider joining the partners in their concerted efforts to contribute to market rebalancing and sustainable stability.

## Nigeria and Petroleum

Dr Emmanuel Ibe Kachikwu, Nigeria’s Minister of State for Petroleum Resources, complemented Barkindo’s remarks with his own sagacious words. Kachikwu spoke of the “previous normal and the new normal.” He outlined several themes that if unlocked, could contribute to the major economic advancement of Nigeria and success of its oil industry.

The Minister also paid tribute to the impact of the ‘Declaration of Cooperation’. He said that but for the concerted efforts of participating countries, the global oil industry would be in a much different place.

He dispelled notions that there would be any peak oil in the future, given long-term trends in demand growth, as underscored by OPEC’s *World Oil Outlook*. However, despite this trajectory, performance in production varies across countries.

He delineated several mega-projects that are currently being undertaken in Nigeria, including within the realm of field development and improving gas reserves. The Minister said he is keen to encourage the use of gas for industrial production, as well as increasing the number of refineries in the country. This will contribute to reducing the level of raw crude exports, he stated.

The Minister has also overseen efforts to improve transparency and in a remark that was widely hailed in the Nigerian media the next day, he said that “one of the reasons why we have done so well is the fact that quite frankly, in my three years of serving as Petroleum Minister of State, I have not received a single call from the President urging me to do an allocation to somebody or give a bloc to somebody. I have not received such a call.”

Kachikwu then outlined elements which he hoped would become the “new normal” in the Nigerian oil



industry. Firstly, he hoped the cost of production could be reduced, ideally from \$32/barrel to \$23/b, if not lower. Another priority will be increasing production volumes. This goal will be more attainable when new projects are attainable. While progress has been made in reducing contract time, project time remains a source of concern.

A further priority for Kachikwu is to reduce flaring, ideally to the point where it is non-existent. Flaring has had too severe an impact for health and environmental reasons, he said. He also argued that host-community issues cannot be solved by government alone and encouraged private companies to play a more proactive role in this regard.

The Minister concluded by posing a question to the gathered assembly. He asked that all participants should consider what additional steps they could take to contribute to the improvement of Nigeria's oil and gas sector, in the interests of advancing the country's economic development.

Following a Ministerial tour of the exhibition hall, which included a visit to the OPEC stand, Dr Maikanti Baru, Group Managing Director of the Nigerian National Petroleum Corporation (NNPC) provided some remarks.

He said that NNPC is working towards increasing daily oil production to 3 million b/d. He also outlined many of the challenges that NNPC has overcome, stating that "the journey has been quite challenging and exciting as well.

We have journeyed through hills and valleys, through bumps and stumps; nonetheless, our resilience has ensured that NNPC continues to stand shoulder-high."

## Legacy and leadership

The rest of the Conference, under the theme '*Driving Nigeria's oil and gas industry towards sustained economic development*', involved panel discussions on topics, including: improving Nigeria's investment climate, particularly through legislation and policy; maximizing Nigeria's gas potential; harnessing opportunities in Nigeria's downstream sector; independent producers' role in the future of upstream production; and combating crude oil theft and pipeline vandalism.

Discussions proved to be informative and substantial. This is the second large-scale international forum that Nigeria has hosted in four months, following the Nigerian International Petroleum Summit, which took place in February. The country's credentials as a premier venue for such events has truly been bolstered by a remarkable 2018.

As delegates returned home after an outstanding conference and exhibition, there can be no doubt that Parra and Lukman would have been proud that their wonderful legacy continues to motivate industry leaders and young people to aspire to the highest standards of excellence and public service.



Mohammad Sanusi Barkindo (second r), OPEC Secretary General, with Secretariat staff at the OPEC stand.

## Industry legend Dr Mana Saeed Otaiba visits the OPEC Secretariat

*The OPEC Secretariat has been very fortunate in that many industry legends that have had a major impact on the Organization, now retired from ministerial positions, remain engaged with OPEC. Following this trend, the Secretariat was delighted to welcome an OPEC titan, **Dr Mana Saeed Otaiba**, the former Minister of Petroleum and Mineral Resources of the United Arab Emirates (UAE), for a visit in June. The OPEC Bulletin reports on Dr Otaiba's reflections on his career and what it takes to make progress in international diplomacy.*



*Dr Mana Saeed Otaiba (c), former Minister of Petroleum and Mineral Resources of the United Arab Emirates; Suhail Mohamed Al Mazrouei (r), UAE Minister of Energy and Industry, and President of the OPEC Conference 2018; and Mohammad Sanusi Barkindo (l), OPEC Secretary General.*



The most common theme in Dr Otaiba's remarks was the importance of dialogue. "Dialogue is so important in building bridges; we must always talk with each other," Dr Otaiba said. This has been a constant theme in his work as a Minister, an economist and also a poet.

It is not usual to associate petroleum with poetry. However, throughout his distinguished life and career, Dr Otaiba, has proven to be a master of both.

For over 45 years, he contributed to the advancement of his beloved country's petroleum interests. He served as Minister of Petroleum and Mineral Resources of the UAE for an astonishing 20 years, from 1970 to 1990. He is currently a Personal Adviser to the President of the UAE, His Royal Highness, Khalifa bin Zayed Al Nahyan.

He also left a distinct legacy with OPEC, acting as Secretary General from July 1983 to December 1983, and was President of the OPEC Conference on six occasions between 1971 and 1983.

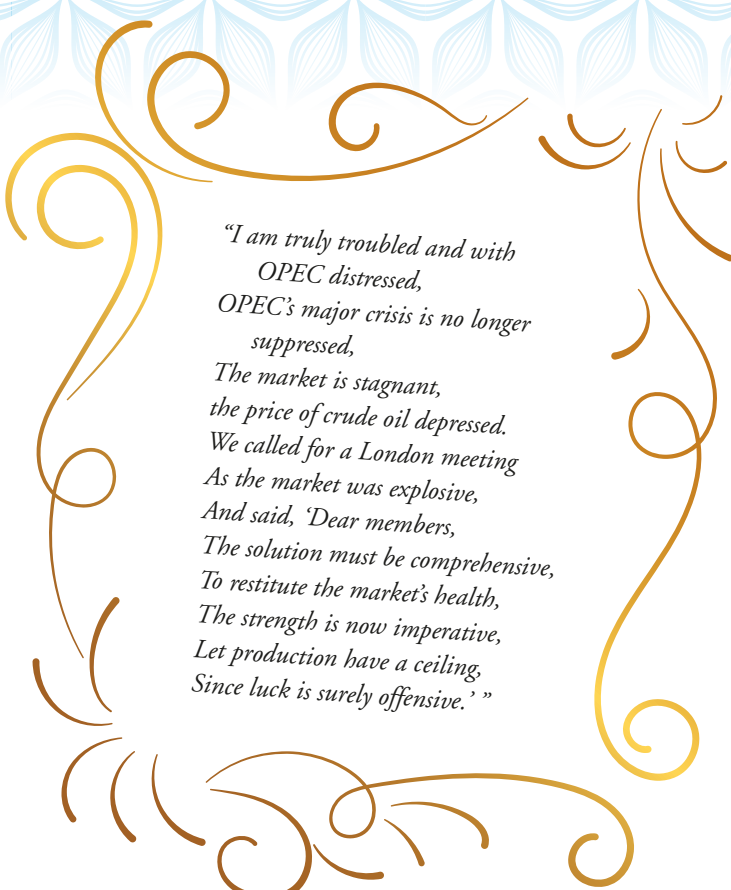
OPEC Secretary General, Mohammad Sanusi Barkindo summarized it best, saying, "There are so many highlights from Dr Mana Saeed Otaiba's career that in order to list them all, I would need hours or days. For 20 years, he served as his country's Minister of Petroleum and Mineral Resources. What outstanding dedication to public service!"

## Poetry

Alongside his distinguished petroleum career, he was also known for bringing poetry and prose to the corridors of the OPEC Secretariat. Dr Otaiba's literary work has been renowned for decades.

He wrote prolifically, including 100 books of poetry, in colloquial Arabic, formal Arabic, and English. He was particularly renowned for *Nabati* poetry and he also scribed novels and non-fiction books about the petroleum industry.

These skills served him well, even during intense negotiations. In March 1983, amidst a marathon session of negotiations in London, Dr Otaiba used poetry to cajole others into action.



*"I am truly troubled and with  
OPEC distressed,  
OPEC's major crisis is no longer  
suppressed,  
The market is stagnant,  
the price of crude oil depressed.  
We called for a London meeting  
As the market was explosive,  
And said, 'Dear members,  
The solution must be comprehensive,  
To restitute the market's health,  
The strength is now imperative,  
Let production have a ceiling,  
Since luck is surely offensive.' "*

## UAE and OPEC

The UAE joined OPEC in 1967 and since then it has been served by diligent and distinguished Ministers, who have all made an immeasurable contribution to advancing the Organization:

- Dr Mana Saeed Otaiba;
- Abdulla Ismail; Head of Delegation, November 1973;
- Yousef Omeir Bin Yousef; Minister of Petroleum & Mineral Resources from November 1990 February 1994;
- Ahmed Said Al-Badi; Acting Minister of Petroleum & Mineral Resources, from March 1994 to May 1995;
- Rakadh Bin Salem Bin Hamed Bin Rakadh; Acting Minister of Petroleum & Mineral Resources, from June 1995 to March 1997;
- Obaid bin Saif Al-Nasseri; Minister of Petroleum & Mineral Resources, from March 1997 to November 2004;
- Mohamed Bin Dhaen Al-Hamli; Minister of Energy, from November 2004 to March 2013; and
- The current Minister, since November 2013; Suhail Mohamed Al Mazrouei; Minister of Energy and Industry and President of the Conference 2018.

Successive Ministers after Dr Otaiba continued the UAE's tradition of playing a role as a conciliator, a bridge builder and a consensus broker.

The UAE has clearly played a very important role in securing the consensus behind the 'Declaration of Cooperation' in 2016, which has done so much to transform the energy industry. Al Mazrouei has also been instrumental, as Conference President in 2018, in encouraging the implementation and the institutionalizing of the 'Declaration of Cooperation'.

The UAE has made an indelible mark in ensuring the 'Declaration' has enjoyed the outstanding success it has been so far; an appropriate tribute to Dr Otaiba's great legacy.

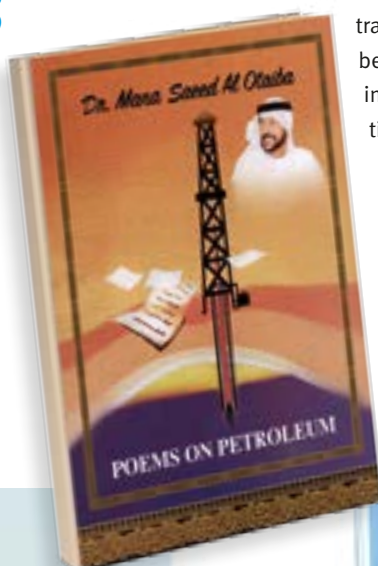
Dr Otaiba has also shown the importance of language, wit and using appropriate words to forge agreements. Only the most skillful of poets could accomplish this.

This is reflected in the other themes in his



*Dr Mana Saeed Otaiba, former Minister of Petroleum and Mineral Resources of the UAE, at the 82<sup>nd</sup> Meeting of the OPEC Conference in 1987.*

poetic work; the most important things in life: family; being a decent person and showing love of one's country, which is best summed up in this touching tribute to his beloved homeland:



*Dr Mana Saeed Otaiba (c), former Minister of Petroleum and Mineral Resources of the UAE; Suhail Mohamed Al Mazrouei (r), UAE Minister of Energy and Industry, and President of the OPEC Conference 2018; and Mohammad Sanusi Barkindo (l), OPEC Secretary General.*





OPEC Secretariat staff gather for a group photo with Dr Otaiba.

*"I am an Emirati and I have every  
right to be proud  
And for me to be considered to be local  
I deserve every right to be proud  
The UAE, The beloved one, that's my  
country  
If it's been spoken of in front of me, my  
feelings rush  
And my heart starts beating for the  
amount of love I have towards it"*

### Returning to OPEC

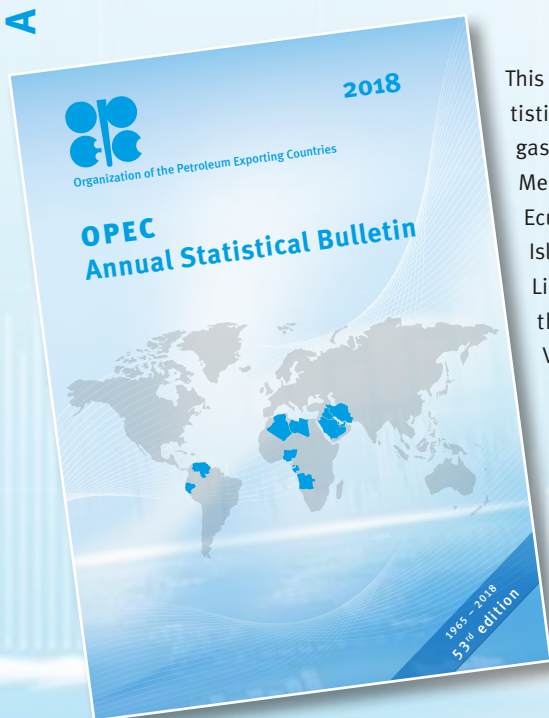
Dr Otaiba was honoured again at the Gala Dinner for the 7<sup>th</sup> OPEC International Seminar, with a tribute video and a special award in recognition of his outstanding contribution to the advancement of OPEC.

In returning to Vienna and the OPEC Secretariat, Dr Otaiba penned a special poem to express his feelings:

*"Today I've come to meet my old  
comrades — within whose presence  
you do revel and rejoice;  
And to revive those joyous memories in  
my heart.  
You are mighty and strong, in whose  
shady and verdant land we have  
always taken refuge.  
Your steadfastness has shielded us from  
the avaricious;  
By controlling the tap of your crude oil,  
you sufficed us and satisfied our  
needs."*

# OPEC launches 2018 Annual Statistical Bulletin

*In June of this year, the OPEC Secretariat released the 53<sup>rd</sup> edition of its Annual Statistical Bulletin (ASB). The ASB provides a wide range of data on the oil and gas industry worldwide, serving as an important source of reliable information for research analysts and academics, as well as policymakers and many other industry stakeholders. The OPEC Bulletin looks at some of the main highlights for this year's publication.*



This year's ASB provides updated statistical data on the oil and natural gas activities of each of OPEC's 14 Member Countries: Algeria, Angola, Ecuador, Equatorial Guinea, Gabon, Islamic Republic of Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates and Venezuela. As in previous years, it also contains valuable industry data for various countries around the world, organized mainly by geographic region, and covers the world's major economic areas.

As the OPEC Secretary General, Mohammad Sanusi Barkindo, said in the *Foreword* to the publication: "Over the decades, the ASB has been a useful reference tool for analysts and academics, policymakers and industry specialists. It is an important source of information that benefits a variety of oil industry stakeholders, and makes available

important and useful data about the global oil and gas industry worldwide."

He added that in publishing the ASB, "OPEC continues to strive to ensure greater data transparency. This has long been one of OPEC's key objectives. The increased dissemination of information about the oil and gas industry and its many stakeholders enables the Organization to fulfil its commitment to contribute to market stability through the enhanced sharing of data."

## Some highlights from the 2018 ASB include:

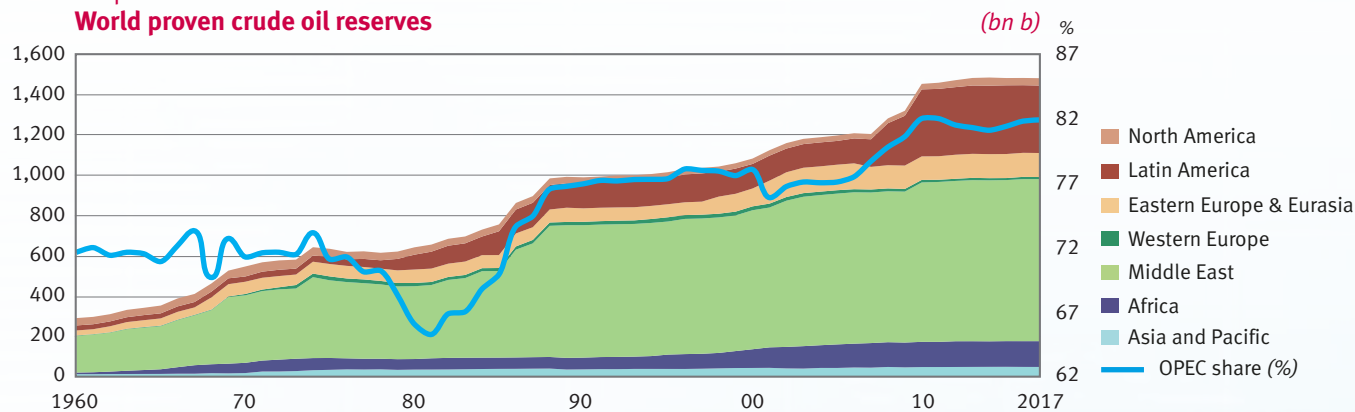
- In 2017, world crude oil production declined by 701,000 b/d, or 0.9 per cent, as compared to 2016, to reach 74.69 million barrels/day, marking the first yearly decline since 2009. OPEC-14 crude oil production fell year-on-year by 926,000 b/d, or 2.8 per cent, while crude production in non-OPEC countries registered gains.
- World oil demand averaged 97.20m b/d in 2017, up by 1.7 per cent y-o-y, with the largest increases taking place in the Asia and Pacific region (particularly China and India), Europe and North America. The 2017 oil demand in Africa and the Middle East grew by around 100,000 b/d, as compared to 2016, while oil demand declined in Latin America for the third year in a row.
- Total exports of crude oil from OPEC Member



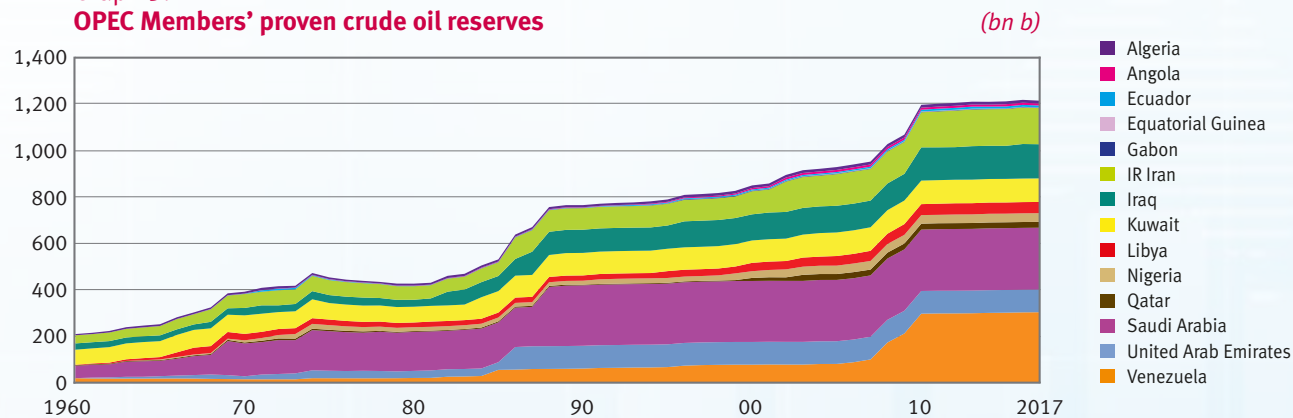
[asb.opec.org](http://asb.opec.org)



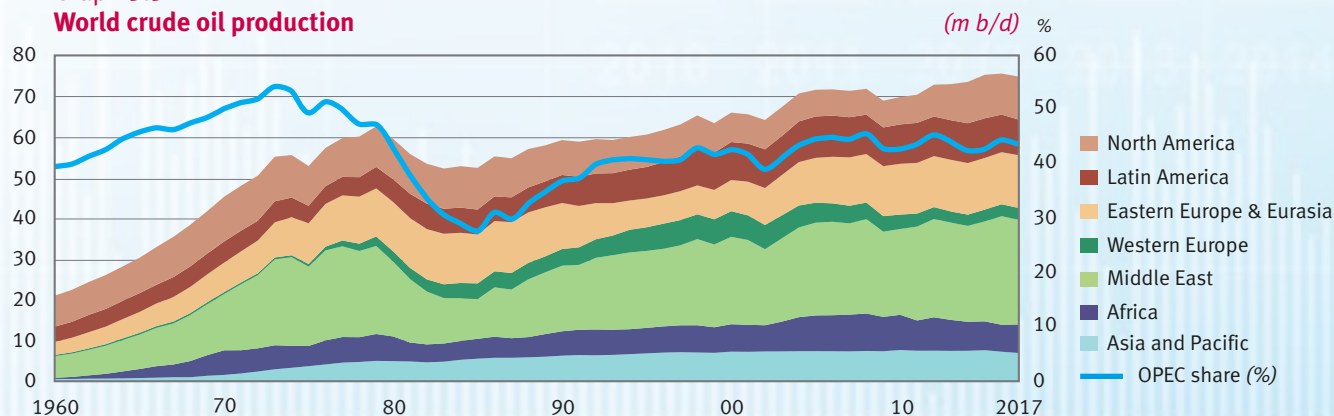
Graph 3.1  
World proven crude oil reserves



Graph 3.2  
OPEC Members' proven crude oil reserves



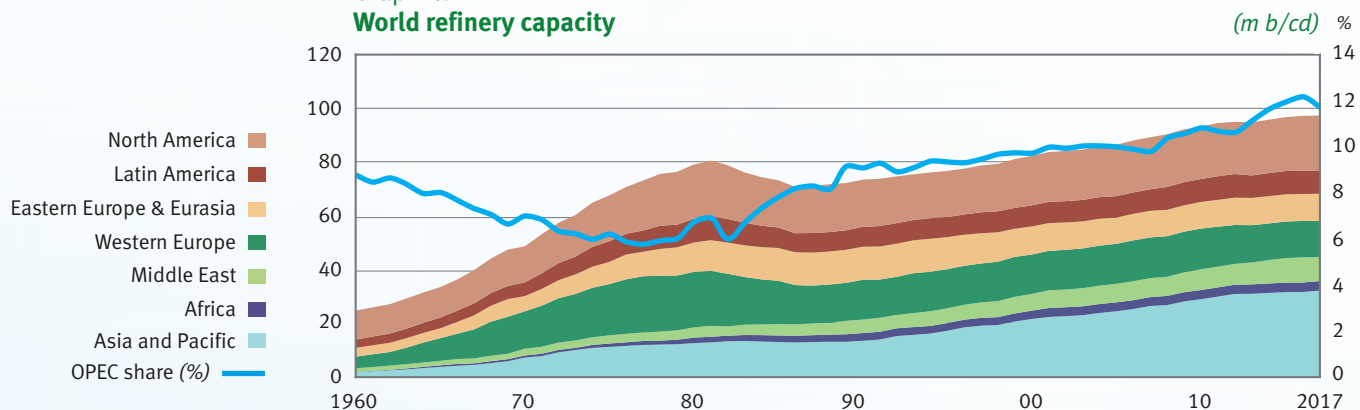
Graph 3.3  
World crude oil production



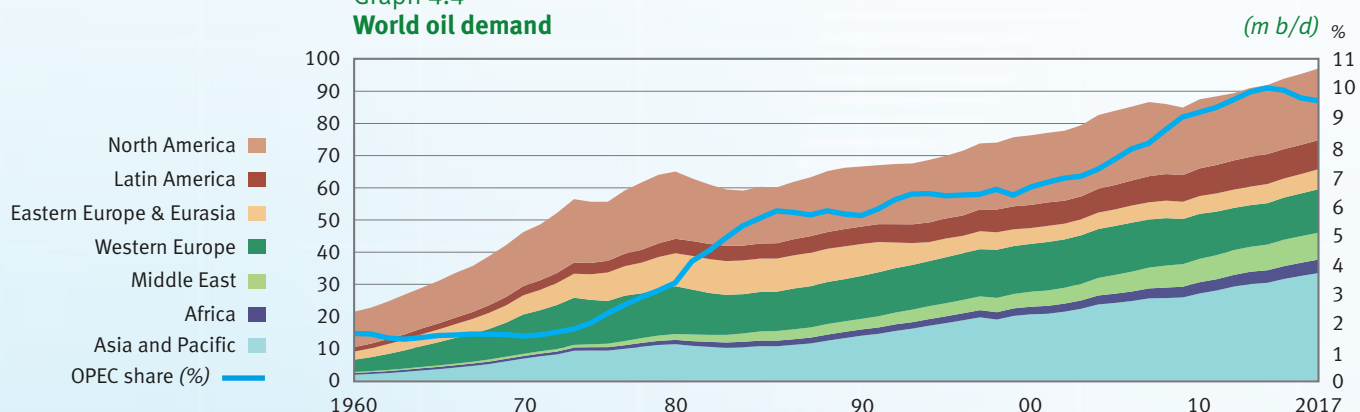
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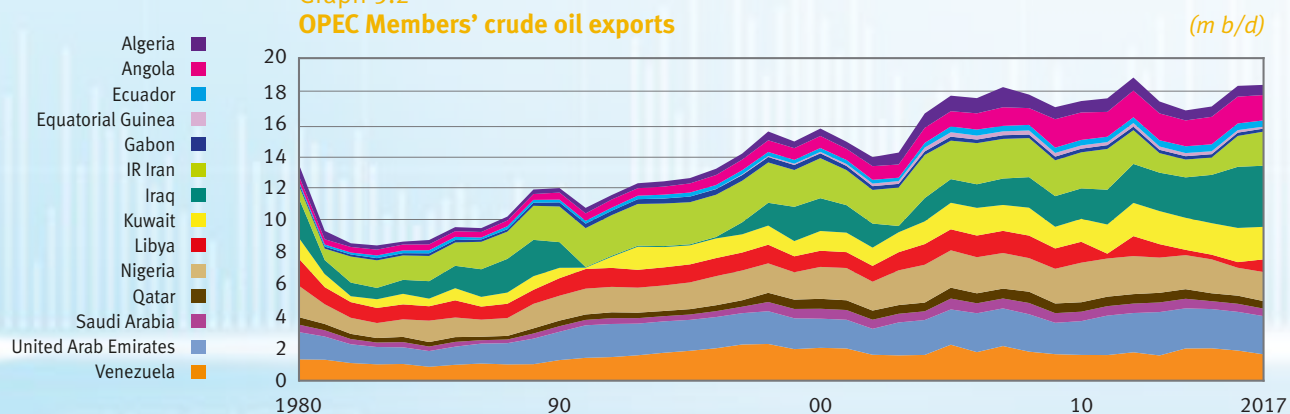
Graph 4.1  
World refinery capacity



Graph 4.4  
World oil demand



Graph 5.2  
OPEC Members' crude oil exports



Countries averaged 24.86m b/d in 2017, declining by 406,000 b/d, or 1.6 per cent, as compared to 2016. As in previous years, the bulk of crude oil from Member Countries was exported to the Asia and Pacific region, in the amount of 15.56m b/d or 62.6

per cent. Significant volumes of crude oil were also exported to Europe, which increased its imports from OPEC Member Countries from 4.4m b/d in 2016 to 4.64m b/d in 2017. North America imported 3.21m b/d of crude oil from Member Countries, which was



82,000 b/d, or 2.5 per cent, less compared to 2016 volumes.

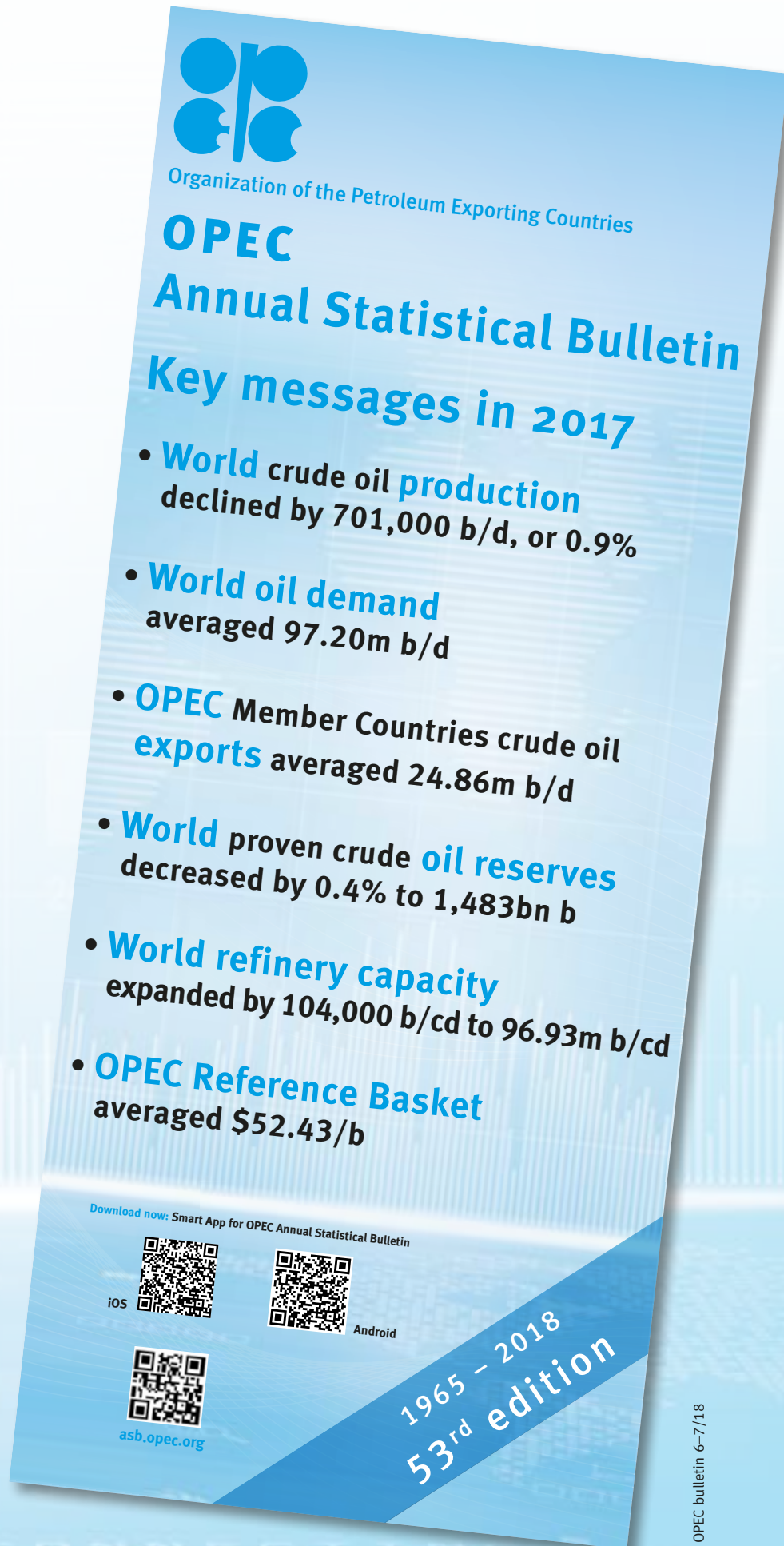
- Total world proven crude oil reserves stood at 1,483 billion barrels at the end of 2017, decreasing slightly by 0.4 per cent from the level of 1,489bn reached at the end of the previous year. Total proven crude oil reserves in Member Countries decreased by 0.3 per cent to 1,214bn b at the end of 2017.
- In 2017, total world proven natural gas reserves rose by 0.2 per cent to approximately 199.4 trillion standard cubic metres. Proven natural gas reserves in Member Countries stood at 95.95 trillion standard cu m, unchanged from the level of the previous year.
- World refinery capacity expanded by 104,000 barrels/calendar day (b/cd) to stand at 96.93m b/cd during 2017, mainly supported by additions in the Asia and Pacific region, particularly China and India. Global refinery throughput ramped up by 1.6 per cent to reach 83.7m b/d in 2017, with the largest gains in the Asia and Pacific region and North America.
- The OPEC Reference Basket averaged \$52.43/b in 2017, up from \$40.76/b in 2016. The yearly increase valued at \$11.67/b, or 28.6 per cent, compared to 2016. The 2017 volatility stood at \$5.00/b, or 9.5 per cent, relative to the yearly average.

As in previous years, the 2018 edition of the ASB is available in various formats. These include a print edition, a PDF version and an interactive online version, which includes historical time-series data going back to 1960. In addition, there is a SmartApp version which is freely available for iOS and Android devices.

The ASB is the product of numerous months of hard and labour-intensive work involving analysts, researchers and statisticians, both at the OPEC Secretariat and our Member Countries. Barkindo added in his *Foreword*: "It is through such collaborative efforts that the Organization continues to ensure the sharing of data. Because of this achievement, I would like to express my appreciation to the staff at the OPEC Secretariat — and all the colleagues and other officials in our Member Countries — for their continuous hard work to make this publication possible."

To download the PDF version of the 2018 ASB, please visit the OPEC website: [www.opec.org/opec\\_web/en/publications/202.htm](http://www.opec.org/opec_web/en/publications/202.htm).

The interactive version of the ASB — as well as the ASB Smart App, which enables the download of complete time-series data back to 1960 — can be accessed under: <http://asb.opec.org>.





# Sonangol and Equinor sign MoU

Angolan state oil company Sonangol and Equinor ASA (formerly Statoil) have signed a memorandum of understanding (MoU) for the Norwegian state company to continue to invest in exploration and contribute to increased oil production in Angola, in a ceremony held in Luanda at the end of June.

## Greater cooperation in the oil sector

The memorandum is expected to enable the parties to develop greater cooperation in the areas of management, logistics, financial, scientific, research, development and operations in the oil sector.

“Equinor already has some oil concessions in Angola for exploration work, such as block 5/06, and

block 18/15 among others. We have other opportunities, both in the Congo basin and in the Kwanza basin; the trend is to enter the Benguela basin,” Sonangol Chairman Carlos Saturnino said at the signing ceremony.

Eldar Saetre, CEO of Equinor, explained that the MoU will allow the Norwegian oil company, which is working on natural gas and oil exploration, to pursue more opportunities.

Information published on Equinor’s website highlights that the Angolan continental shelf is the largest contributor to oil production outside Norway, and since 1991 when it entered the Angolan market, production has risen to just over 200,000 barrels of oil equivalent per day.





# Equatorial Guinea to host APPO Summit in 2019

The Ministry of Mines and Hydrocarbons of Equatorial Guinea has announced that it will hold the Africa Petroleum Producers Organization's (APPO) next ministerial summit and industry conference in Malabo in March 2019. The Cape VII event will take place at the Sipopo conference centre on Bioko Island.

Gabriel Mbaga Obiang Lima, Equatorial Guinea's Minister of Mines and Hydrocarbons, said: "APPO is an extremely valuable forum for Africa's petroleum industry policymakers, and a venue where we can advance an agenda of cooperation on this continent. Equatorial Guinea is in the privileged position of being able to serve the interests of all African producers at the Cape VII conference."

Cape VII is one of three events to be held in 2019

under the Ministry of Mines and Hydrocarbons' Year of Energy initiative, which is coordinated by the Agency of Energy. Malabo will also host the 2019 Gas Exporting Countries Forum Summit and heads of state meeting, and the Equatorial Guinea Africa Oil & Power conference.

## APPO

APPO, formerly known as the African Petroleum Producers Association (APPA), is an intergovernmental organization founded in Lagos in 1987. Its members are: Algeria, Angola, Benin, Cameroon, Chad, Democratic Republic of Congo, Republic of the Congo, Côte d'Ivoire, Egypt, Equatorial Guinea, Gabon, Ghana, Libya, Mauritania, Niger, Nigeria, South Africa and Sudan. 🌐



*Gabriel Mbaga Obiang Lima, Equatorial Guinea's Minister of Mines and Hydrocarbons.*

# Nigeria targets ten per cent of global LNG market

As part of its strategic aspirations to derive maximum value from Nigeria's large natural gas resources, the Nigerian Federal Government is targeting ten per cent of the world's market share in traded liquefied natural gas (LNG), according to Nigerian National Petroleum Corporation (NNPC) Group Managing Director, Dr Maikanti K Baru.

Speaking at the 27<sup>th</sup> World Gas Conference in Washington DC, US, at the end of June, Dr Baru emphasized the enormous potential of Nigeria's gas resources, explaining the gas-to-power initiatives, and the quest for industrialization.

"We are focused on jumpstarting and sustaining gas supply to support a rapid growth in power generation, re-positioning Nigeria as the regional hub for gas-based industries such as fertilizer, petrochemicals, methanol, liquefied petroleum gas (LPG), as well as leveraging our

enormous reserves position to strengthen our footprints in high value gas export through LNG and regional gas pipelines," Dr Baru told delegates at the triennial gas gathering.

He said with emerging gas markets and the need to generate more power across Africa's Sub-Saharan region, unprecedented investment opportunities abound in Nigeria's gas sector for the country.

He noted that towards achieving its gas aspirations, the Nigerian government recently approved three-pronged gas sector reforms that included a domestic gas supply obligation, gas pricing policy and regulation, as well as a gas infrastructure blueprint.

Dr Baru added that Nigeria had completed and commissioned about 600 kilometres of new gas pipelines, thereby connecting all existing power plants to permanent gas supply pipelines. 🌐



*Dr Maikanti K Baru, Group Managing Director, Nigerian National Petroleum Corporation (NNPC).*



## Qatar Petroleum buys stake in Exxon Mobil's Argentina shale assets

Qatar Petroleum (QP) has signed an agreement with Exxon Mobil Corporation to acquire a 30 per cent stake in two of Exxon's local affiliates in Argentina, giving QP access to oil and gas shale assets in the Latin American country.

The deal would give QP, the world's largest supplier of liquefied natural gas (LNG), a 30 per cent share in ExxonMobil Exploration Argentina SRL and Mobil Argentina SA, which holds rights with other partners for seven blocks in the Vaca Muerta (onshore Neuquén basin in Argentina), QP said.

The blocks in the Vaca Muerta are under "unconventional exploration licenses with active drilling plans, as well as exploitation licenses with pilot drilling and production," QP said.

"This is an important milestone, as it marks Qatar Petroleum's first investment in Argentina, as well as its first significant international investment in unconventional oil and gas resources," QP's Chief Executive, Saad Al-Kaabi, said. The agreements were signed by Al-Kaabi, and Andrew Swiger, Senior Vice President at Exxon Mobil Corp, in Doha.



Saad Al-Kaabi, Qatar Petroleum's Chief Executive.



Andrew Swiger, Senior Vice President at Exxon Mobil Corp.



## Saudi Aramco rebalances its Asia crude oil benchmark

Saudi Aramco has announced that it will switch to a new pricing benchmark for crude oil sales to Asia from October, as Mideast producers venture ever deeper into oil trading and take greater control in assessing the value of their crude.

### New Asia marker

Saudi Aramco's long-standing price marker has been the average of *Platts Dubai* and *Platts Oman* assessments. The company said its new Asia marker will replace *Platts Oman* with Dubai Mercantile Exchange (DME) Oman effective October 1, 2018, creating a hybrid between two

major Asia benchmarks. The company will keep using the crucial *Platts Dubai* price assessment.

Ahmed Subaey, Saudi Aramco's Vice President of Marketing, Sales and Supply Planning said: "We are rebalancing our Asia marker to ensure that it is underpinned by a broad and vibrant marketplace. The inclusion of the DME Oman price complements the existing *Platts Dubai* price to provide our customers with better visibility into price dynamics.

"Our main objective is to ensure that our marker is market-reflective, well-regulated, and predictable, and we are confident that the DME Oman price, combined with the *Platts Dubai* price, will serve that purpose."





# ADNOC and Saudi Aramco to partner on \$44 billion Indian refinery



Saudi Aramco, ADNOC and three Indian companies have signed an agreement to explore a strategic partnership and co-investment in the development of a new \$44 billion mega refinery and petrochemicals complex at Ratnagiri, on India's west coast.

## Joint strategic cooperation

The agreement defines the principles of the joint strategic cooperation between Saudi Aramco and ADNOC to jointly build, own and operate the complex in collaboration with a consortium of Indian national oil companies currently consisting of Indian Oil Corporation Ltd, Bharat Petroleum Corporation Ltd, and Hindustan Petroleum Corporation Ltd. Saudi Aramco and ADNOC will jointly own 50 per cent of the new joint venture company Ratnagiri Refining and Petrochemical Company Ltd, with the remaining 50 per cent owned by the Indian consortium.

Dr Sultan Ahmed Al Jaber, UAE Minister of State and ADNOC Group CEO, said: "This project is a clear example of our expanded downstream strategy, where we will make strategic, commercially-driven, targeted

investments, both in the UAE and abroad. By investing in this project, we will secure off-take of our crude to a key growth economy, as well as one of the world's largest and fastest growing refining and petrochemical markets."

Amin H Nasser, Saudi Aramco President and CEO, said: "The Ratnagiri project will meet India's rising demand for fuels and chemical products while serving the strategic objectives of the partners. I am pleased that Saudi Aramco will deepen its engagement in India's fast-growing oil and gas sector through this project that also positions us for future collaboration as a key element of our company's global downstream strategy."

## India's growing refining sector

Commenting on the tripartite agreement, Shri Dharmendra Pradhan, India's Minister of Petroleum and Natural Gas said: "Our oil and gas relations have taken a major leap today with the signing of the MoU between Saudi Aramco and ADNOC. This will make the UAE and Saudi Arabia partners in India's rapidly growing refining sector and in India's growth story."



BIENVENUE

Republic of the Congo joins OPEC

# The OPEC family becomes 15

*At the 174<sup>th</sup> Ordinary Meeting of the OPEC Conference, presided over by the OPEC Conference President, Suhail Mohamed Al Mazrouei, the UAE's Minister of Energy and Industry, the Republic of the Congo's request to join OPEC was approved with immediate effect. The country becomes the 15<sup>th</sup> Member of the Organization and its 7<sup>th</sup> Member from the continent of Africa. **Ayman Almusallam** reports on this historic event and provides some background on the Organization's newest Member.*

**O**n June 22, 2018, the 174<sup>th</sup> Ordinary Meeting of the OPEC Conference convened in Vienna, where it not only decided that countries will strive to adhere to the overall conformity level of the OPEC-12 in the 'Declaration of Cooperation', down to 100 per cent, as of July 1, 2018, but also unanimously accepted the Republic of the Congo as its newest Member, with immediate effect.

Jean-Marc Thystère-Tchicaya, Minister of Hydrocarbons of the Republic of the Congo, said the country "is thrilled and honoured to be joining OPEC and to do our part to preserve an equilibrium in global oil markets and ensuring a sufficient flow of investments into hydrocarbons."

He added that "severe oil market downturns like the one the world experienced recently remind us of the essential role that institutions like OPEC play in ensuring stability. We are proud to cooperate with the world's oil leaders."

The Ministry of Hydrocarbons also thanked Mohammad Sanusi Barkindo, OPEC Secretary General, and all Member Countries for accepting the country's Membership.

## Africa's exquisite jewel

Located in Central Africa, the country is bordered by Gabon and the Atlantic Ocean to the west, Cameroon to the north-west, the Central African Republic to the north-east, the Democratic Republic of Congo to the east and south, and Angola's exclave of Cabinda to the south-west.

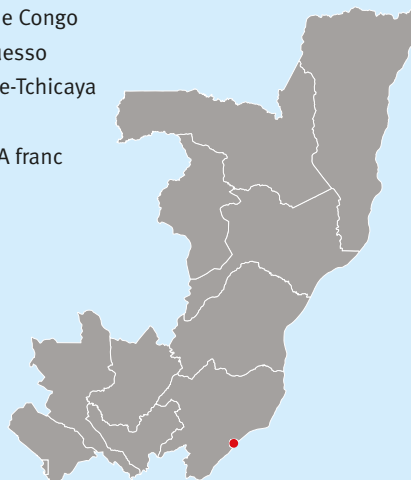
The country's capital and largest city is Brazzaville, which has a population of roughly 1.8 million. The national currency is the Central African CFA franc, which is used by five other countries in Africa, including fellow OPEC Members Equatorial Guinea and Gabon. French is the country's official language, however, a number of local languages — such as Kituba and Lingala — are also widely spoken.

The country boasts some of the last true pristine wilderness areas on the planet. The lush Congo Basin rainforest supports charismatic fauna, such as forest elephants and lowland gorillas, in numbers not found anywhere else in the world. It has been called 'a land of steamy jungles', which gives it the potential to become one of the finest ecotourism destinations in Africa.





<b>Country name:</b>	The Republic of the Congo
<b>President:</b>	Denis Sassou Nguesso
<b>Minister of Hydrocarbons:</b>	Jean-Marc Thystère-Tchicaya
<b>Capital:</b>	Brazzaville
<b>Currency:</b>	Central African CFA franc
<b>Official language:</b>	French
<b>Population (millions):</b>	4.3
<b>Total land area (1,000 sq km):</b>	342
<b>GDP per capita (US\$):</b>	1,958
<b>GDP at market prices (millions US\$):</b>	8,513
<b>Proven crude oil reserves (billion barrels):</b>	1.60
<b>Oil demand (m b/d):</b>	0.03
<b>Crude oil production (m b/d):</b>	0.35
<b>Natural gas reserves (bn s cu m):</b>	111



*Jean-Marc Thystère-Tchicaya, Minister of Hydrocarbons.*

## Brief history

Since its early days, the Republic of the Congo has undergone several unique stages of history that enriched its notable past and its culture.

The earliest sign of human civilization is believed to date back around 2,000 years ago, when the Bambuti people settled in the area. The Bambuti people, who were linked to the pygmy tribes, were soon replaced by the Bantu tribes. During this time, several attempts to establish solid realms on the north, south and mouth of the Congo River took place.

Decades later, the Portuguese began to develop an interest in exploring new parts of the world, particularly new trade roots. King John II of Portugal (1481–95), suggested expeditions to discover the southern part of the African continent aimed at potentially identifying new routes to Asia. Captain Diogo Cao — a Portuguese globe-trotter — soon reached the mouth of the Congo River (1484), and in doing so, become the first European to reach the Kingdom of Congo.

Over the centuries, Portugal gradually began to play a weaker role in the affairs of the African continent and then in 1884–85, the Berlin Conference took place, which ushered in a period of heightened colonial activity by European powers. They developed a strong interest in Africa and its diverse and rich primary resources, including cotton, rubber and oil.

In the following years, the region witnessed several attempts by France, Germany, Great Britain, Portugal and Belgium to gain control over the region.

In 1960, Congo gained its independence to become

a sovereign state and a republic. The current President is Denis Sassou Nguesso.

## Oil and gas industry

Oil and gas dominates the resource base of the Republic of the Congo. The petroleum industry accounts for up to 90 per cent of the country's exports and over 60 per cent of GDP.

The country is the fourth-largest oil producing country in sub-Saharan Africa. In the early 1980s, the Republic of the Congo emerged as a significant oil producer, with production expanding considerably during the 1990s.

By the turn of the century, production had begun to decline, as existing oil fields reached maturity. However, since 2008, oil production has increased every year as a result of several new projects coming online.

Crude oil production averaged 250,000 b/d from 1994–2016, with an all-time high of 380,000 b/d hit in August of 2017. In 2017, production was estimated to average 350,000 b/d. Oil production is expected to grow by another 40,000 b/d in 2018 to average 390,000 b/d, as new offshore fields come online. Nearly all of the country's hydrocarbons are produced offshore.

The country has one oil refinery in the coastal city of Pointe-Noire, which fulfils about 65 per cent of the country's domestic needs. The government is in the process of upgrading the refinery to increase its production capacity, and there has been talk of building a second one.

The oil majors, France's Total and Italy's Eni, are the largest operators in country.

## Did you know?

- Brazzaville is situated on the shorelines of the Congo River, the world's deepest, and the second longest river in Africa, after the Nile.
- Located on the equator, the Republic of Congo enjoys a tropical climate that features two seasons — wet and dry. In general, the temperature tends to be consistent throughout the year.

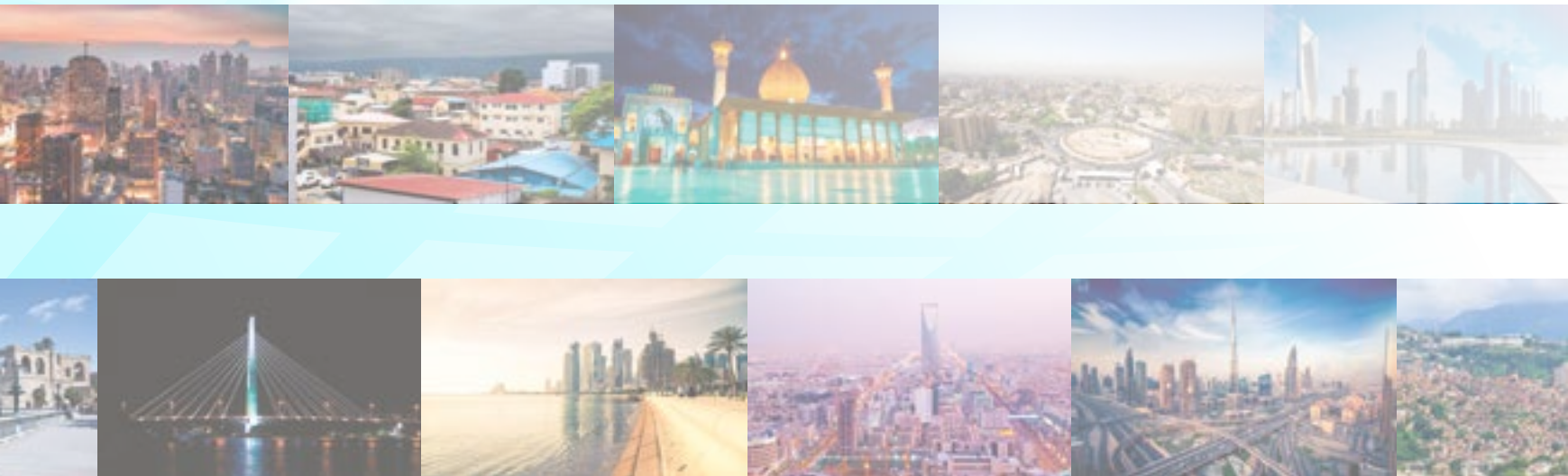
Focus on Member Countries



# OPEC CITIES IN FOCUS

Alamy





In the April 2017 edition of the *OPEC Bulletin*, we introduced a new series — **OPEC Cities In Focus** — which would endeavour to provide an overview of the major cities in OPEC’s Member Countries and highlight their many attributes.

Though each OPEC Member Country has played a prominent role in the oil and gas sector over the years, and has maintained a steadfast commitment to the Organization’s broader objectives in regards to market stability, they all have much more to offer than just energy resources. Through this series, we hope to spotlight the history and development of their principal cities.

Our motivation is to highlight some of the other features of our Member Countries apart from oil and gas. And our desire is to offer readers a window into the rich urban life in our Member Countries and their cultural diversity.



# Brazzaville:

a unique history and landscape





Lying on the banks of the Congo River, the Republic of the Congo's financial and administrative centre provides local and international visitors with an exceptional taste of the country's rich past and encouraging future. In the tenth instalment of 'OPEC Cities in Focus', **Basma Aribi** and **Ayman Almusallam** profile the Republic of the Congo's first and largest city — Brazzaville.

*The Basilica of Saint Anne in Brazzaville.*



**L**ocated on the north side of the great Congo River, on a land area of approximately 264 square kilometres and with a population close to 1.8 million, Brazzaville is the vibrant capital and heartbeat of the Republic of the Congo.

The city of Brazzaville was established during the colonial era, when the Italian-born explorer Pierre Savorgnan de Brazza, who was granted French citizenship in 1874, founded a settlement on the banks of the Congo River in 1880 that commemorates his name.

The settlement quickly experienced a remarkable development in terms of construction and infrastructure, and in 1904, Brazzaville became the capital city of French Congo, following the conclusion of the Berlin Conference. Six years later, French Equatorial Africa emerged and Brazzaville was selected to be the new country's capital.

Further development of the city continued and in 1934, the Congo-Ocean railway came into service, linking Brazzaville with the Atlantic port of Pointe-Noire, marking a new chapter in the economy of the region.

In an attempt to redefine relations between France and its colonies in Africa, Brazzaville hosted a meeting of representatives of the African countries and France in 1944. The meeting concluded with the announcement of the 'Brazzaville Declaration'.

In 1960, the Republic of the Congo, as a whole, gained independence. Presently, Brazzaville possesses the status of both a municipality, as well as a department (state), and comprises nine boroughs.



*The Ministry of Hydrocarbons, Brazzaville.*

## Geography and climate

Brazzaville is located to the north of the Congo River, which is the second largest river basin in the world. Interestingly, Brazzaville and Kinshasa, the capital of the Democratic Republic of the Congo, are the two closest

capital cities in the world. They are located opposite one another and only separated by the mighty Congo River.

The climate of Brazzaville is characterized as wet and dry, with high levels of humidity. It features a longer wet season than a dry season. During the dry season, which begins in July and ends in August, the city hardly sees any precipitation.

## Economy

Considering its location, Brazzaville possesses a strategic economic edge that revolves around the Congo River being a major traffic route for goods, particularly once large quantities of exploitable primary resources were discovered in the region. The city takes deliveries of raw materials, such as rubber, wood and agricultural products.

Over the past decade, significant investments have been made to the port area in order to become a major logistic platform for the entire subregion. The municipality of Brazzaville states that since December 1, 2014, the French group subsidiary Necotrans has been the operator of the ports concession — for a period of 15 years — with the aim of tripling its flow of goods.

Textiles, tanning and manufacturing are also some of the key





*The City Hall (Hotel de Ville) in Brazzaville, Republic of the Congo.*

sectors that contribute to the regional economy of Brazzaville.

Being a bustling capital in the continent of Africa, several firms and organizations have also established regional offices in Brazzaville. For instance, it is home to the World Health Organization's regional office for Africa.

## Major attractions

With a unique diversity and an established legacy, Brazzaville hosts several sights that serve as a testament to what a capital city can achieve and accumulate over the years. The following provides a taste of the key attractions.

## Congo River

The Congo River is the world's deepest river, exceeding 750 feet in some parts, and the second largest river in the world in terms of the water discharge volume. It is named the Congo River as it flows through the Congo rainforest of Africa. The Congo River actually flows through ten African countries: Zambia, Tanzania, Rwanda, Cameroon, Burundi, Central African Republic, Democratic Republic of the Congo, and a number of OPEC Member Countries — the Republic of the Congo, Gabon and Angola.

The bustling underwater world of the Congo River is home to around 700 species of fish, 80 per cent of which are found nowhere else in the world. Enjoying an extensive biodiversity, the river provides food to more than 75 million people.

The Congo River also forms Africa's largest network of navigable waterways, which makes it a transit

hub of Central Africa. Through the years, it has enabled the distribution and trade of a tremendous amount of commodities.

The river also accommodates 40 hydroelectric power plants that supply electricity to many nations. Due to its powerful water flow, it has been estimated that the entire basin holds up to 13 per cent of the world's hydro-power potential. It is an amount that would be sufficient to meet the electricity needs of the entire Sub-Saharan Africa.



*The Savorgnan de Brazza Mausoleum in Brazzaville.*



*The Central Park and Eco Bank, Brazzaville.*



*Avenue Amilcar Cabral with the Nabemba Tower, in Brazzaville.*

### **Bela and Loufoulakari Falls**

The Congo River hosts many beautiful waterfalls, such as the Bela and Loufoulakari Falls, which are situated to the south-west of Brazzaville.

The Bela Falls, exceeding a height of 150 metres, are situated amongst a small piece of the Congo's pristine rainforest and although the noise from the crashing water can be heard from afar, the atmosphere is very tranquil.

The Loufoulakari Falls lie 80 km south of Brazzaville at the confluence of the Loufoulakari River and the Congo River. It is a notable tourist attraction due to its massive size and power. It is surrounded by tropical forests, creating a calming atmosphere.

### **Les Rapides**

Les Rapides is described as the point where the Congo River goes wild! Situated on the outskirts of the capital, Les Rapides is a series of wide and powerful rapids. To experience the rapids, visitors can sit in one of the local

coffee shops at the Pont du Djoue and enjoy the picturesque untamed white waterfalls.

### **Nabemba Tower**

Penetrating the skyline of Brazzaville, the Nabemba Tower, is considered to be the tallest building erected in the Republic of the Congo. It is 106 m high and consists of 30 floors.

Overlooking the Congo River, the tower is an office skyscraper located in the southern part of the capital. The tower is named after the mountain Mont Nabemba, the highest mountain in the Republic of the Congo.

The construction of the building occurred between 1983 and 1986, and it was inaugurated by President Denis Sassou Nguesso four years later.

### **Basilica of St Anne**

The basilica, which was built between 1943 and 1949, symbolizes the distinctive artistic abilities of





Viewing terrace on the Congo River in Brazzaville's Mansimou District, extolling the power of river's mighty rapids.

the French architect Roger Erell. It is known as a fabulous example of religious architecture, which represents one of the most important religious monuments of Central Africa.

Being one of Brazzaville's most visited landmarks, the remarkable architecture embraces a fusion of western concepts with native construction techniques. The basilica is decorated with an exquisite green roof and is also known as the 'Basilica of freedom'.

### Poto-Poto neighbourhood

Poto-Poto is a unique residential neighbourhood in Brazzaville. The name Poto-Poto translates as 'watery mud' in the Bambara language, as the area tends to flood during heavy rains.

It is also home to several remarkable churches and mosques, such as Basilica of St Anne and Masjid al-Sunna, which is the largest mosque in the Republic of the Congo.

The Poto-Poto market is one of the largest and



Fishermen on the Congo River, Brazzaville.

well-known markets in the city. It is a place where authentic Congolese culture can be explored, as it offers a variety of local products and services, such as colourful African print fabrics, traditional African-inspired jewellery and natural homemade products.



# OFID appoints new Director-General



*Suleiman J Al-Herbish (r), OFID Director-General, delivers his farewell speech at the 39<sup>th</sup> Session of OFID's Ministerial Council. On the left is newly-elected Chairperson, Sri Mulyani Indrawati, Indonesian Minister of Finance.*

**T**he OPEC Fund for International Development's (OFID) Ministerial Council, the highest policy making body of the Vienna-based international development organization, has elected a new Director-General for the first time in 15 years.

Dr Abdulhamid Alkhalifa, a Saudi Arabian national, will join OFID before the end of 2018 and lead the organization as it continues to support sustainable development in some of the world's most vulnerable communities. Since 2014, Dr Alkhalifa has been Deputy Secretary General of the Saudi Arabian Public Investment Fund. He is an accomplished and experienced professional who has previously held a number of leadership positions at the World Bank Group.

Outgoing Director-General, Suleiman J Al-Herbish, was appointed in November 2003 and has served three five-year terms. Throughout his 15 years at the helm of OFID, Al-Herbish has made the organization's work significantly more relevant and visible, broadening the way that development funding is provided and

strengthening cooperation with other development organizations. Central to OFID's achievements under his leadership has been its campaign for the eradication of energy poverty, helping to make the world sit up and take notice of the one billion people still living without electricity, and the three billion people who do not have access to clean cooking fuels or technologies.

"In what is one of the best and most inspiring demonstrations of South-South cooperation, our efforts — along with those of our friends in the international arena — have culminated in something remarkable; something that will underpin the entire sustainable development agenda to 2030 and beyond," Al-Herbish said.

"Access to energy for all is recognized as Sustainable Development Goal 7 (SDG 7); a stand-alone goal in the United Nations Agenda 2030 for Sustainable Development," he added.

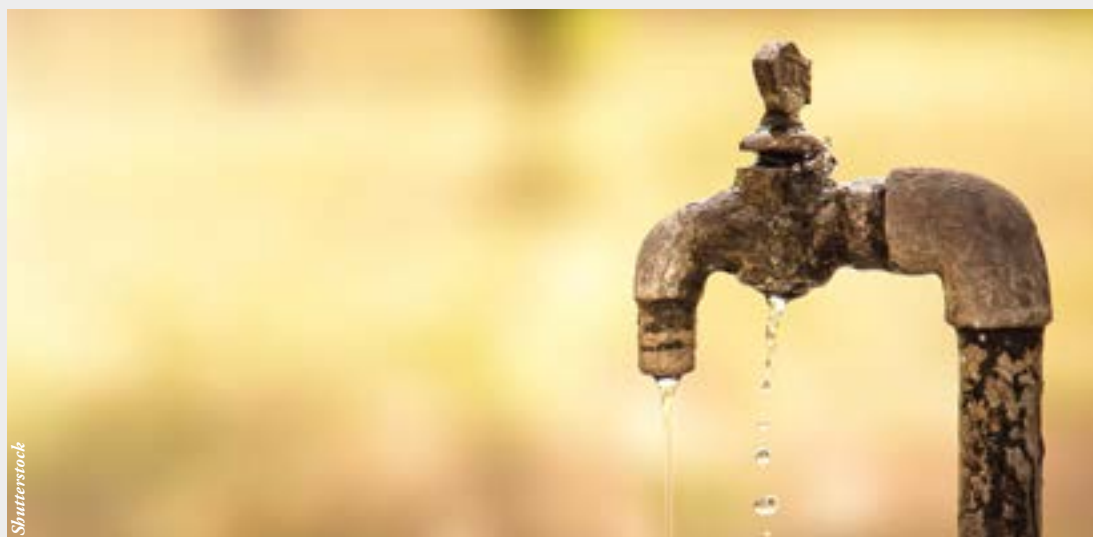
"OFID is far more than a lending institution. Our organization now helps set the global development agenda and I am very proud of what we have achieved."





# Women and water in Nepal

Key posts for women and opportunities for self-development



*By Silvia Mateyka*

**A** \$20 million project in Nepal will help provide drinking water and safe sanitation services across 19 small rural towns, as OFID joins forces with the Asian Development Bank (ADB), the Bill & Melinda Gates Foundation and the government of Nepal.

The towns under this project are represented through water user associations, which elect water user and sanitation committees (WUSCs), responsible for the management and maintenance of drinking water. Each WUSC has a minimum of three women members, making up at least 33 percent of the committee. In addition, a woman must occupy at least one of the key posts – Chair, Vice-Chair, Secretary or Treasurer.

The approach provides opportunities to the communities' women members, helping to raise their public profile, self-esteem and confidence within the community. Women members are also empowered through various training and capacity building initiatives. WUSCs have strengthened the projects and helped create many strong and dedicated women leaders.

“This loan will fund the third phase of a wide-ranging

water programme undertaken by the government of Nepal and the ADB,” explains Dr Jaafar Al-Mahdi, OFID country officer for Nepal. The main objective is to provide around 78,000 households across 19 small towns with piped-in water, and over 20,000 sanitation facilities.

Sustainability and social inclusion is central to all three phases of the ‘Small Towns Water Supply and Sanitation Sector Projects’. Nepal’s government places a strong emphasis on community ownership and participation in maintaining all new infrastructure.

Water is one of Nepal’s greatest natural assets. However, a large proportion of the population does not have access to safe and adequate drinking water. They rely on conventional or more traditional sources of water such as lakes, rivers and wells.

Many women spend a large part of their day fetching water, a chore that is also expected of young girls, thus preventing them from attending school. Water-related diseases also hamper the productivity of small farmers and other wage earners, hindering the country’s socio-economic development.



Students and professional groups wanting to know more about OPEC visit the Secretariat regularly in order to receive briefings from the Public Relations and Information Department (PRID). PRID also visits schools under the Secretariat's outreach programme to give them presentations on the Organization and the oil industry. Here we feature some snapshots of such visits.

## Visits to the Secretariat



**April 3**

Officials from the Indian Oil and Gas Corporation/Institute of Management, New Delhi, India.



**April 12**

Students from ELSA, the European Law Students' Association, Vienna, Austria.



**April 13**

Students from the University of Debrecen, Debrecen, Hungary.





**April 16**

Students from the European Student Think Tank, Vienna, Austria.



**April 17**

Students from the Institute for the International Education of Students (IES abroad Vienna centre), Vienna, Austria.



**April 23**

Officials from the Oil and Natural Gas Corporation Limited (ONGC) and Indian Institute of Management, Culcutta, India.



**April 26**

Officials from the Karl-Theodor-Molinari-Stiftung, Berlin, Germany.



## Energy Models Analyst

The Energy Studies Department monitors, analyzes and forecasts world energy developments in the medium and long term and reports thereon, in particular providing in-depth studies and reports on energy issues. It monitors developments and undertakes specific studies on energy demand and production-related technology, assessing implications for OPEC. It identifies and follows up key areas of energy-related emerging technologies and research and development (R&D), facilitates and supports planning and implementation of collaborative energy-related R&D programmes of Member Countries, as well as identifies prospects for OPEC participation in major international R&D activities. It carries out studies and reports on developments in the petroleum industry, providing effective tools for carrying out model-based studies of analyses and projections of energy supply/demand and downstream simulation. It elaborates OPEC Long Term Strategy and monitors, analyses and reports on relevant national or regional policies (fiscal, energy, trade and environmental), assessing their impacts on energy markets.

### Objective of position:

To ensure adequate development of the modelling capabilities of the Department and to supervise the development and maintenance of medium- to long-term modelling systems; to coordinate and be responsible for running the models; and to coordinate, carry out or contribute to studies based on a modelled approach.

### Main responsibilities:

- Ensures and supervises the development of medium- and long-term modelling systems made by the OPEC Secretariat or by outside consultants and to co-ordinate for running the models.
- Ensures the maintenance of proper specifications of the models in use, keeps OPEC Secretariat methodologies continually under review and provides general guidelines for improving methodologies for the models in the Department.
- Conducts or contributes to studies based on a modelled approach.
- Responsible for defining the most reasonable raw input data for and running, modifying and updating the

models in the Secretariat; estimating and re-specifying the equations of the models to increase their computational efficiency.

- Studies and keeps abreast of other energy model efforts developed outside so as to keep OPEC methodologies continually under review.
- Contributes to speeches, articles and presentations to internal meetings and international forums.
- Carries out any other tasks assigned by the relevant superiors as pertain to his/her background, qualifications and position.

### Required competencies and qualifications:

#### Education:

University degree in Economics, Statistics or Computational Modelling; advanced degree preferred.

#### Work experience:

University degree: eight years in the petroleum industry; advanced degree: six years.

#### Training specializations:

Energy modelling; knowledge of latest developments in exploration/production (upstream), pipeline transportation, refining (downstream) and modelling; broad knowledge of various phases of oil operations and energy related environmental issues an asset.

#### Competencies:

Communication skills; analytical skills; presentation skills; interpersonal skills; customer service orientation; initiative; integrity.

#### Language:

English.

### Status and benefits:

Members of the Secretariat are international employees whose responsibilities are not national but exclusively international. In carrying out their functions they have to demonstrate the personal qualities expected of international employees such as integrity, independence and impartiality.

The post is at grade E reporting to the Head of Energy Studies Department. The compensation package, including expatriate benefits, is commensurate with the level of the post.

### Applications:

Applicants must be nationals of Member Countries of OPEC and should not be older than 58 years.

Applicants are requested to fill in an application form which can be downloaded from the OPEC website.

In order for applications to be considered, they must reach the OPEC Secretariat through the relevant Governor not later than **July 31, 2018**, quoting the job code: **5.4.01** (see [www.opec.org](http://www.opec.org) — Employment).



# CALL FOR PAPERS



The OPEC Energy Review is a quarterly energy research journal published by the OPEC Secretariat in Vienna. Each issue consists of a selection of original well-researched papers on the global energy industry and related topics, such as sustainable development and the environment. The principal aim of the OPEC Energy Review is to provide an important forum that will contribute to the broadening of awareness of these issues through an exchange of ideas. Its scope is international.

The three main objectives of the publication are to:

1. Offer a top-quality platform for publishing original research on energy issues in general and petroleum related matters in particular.
2. Contribute to the producer-consumer dialogue through informed robust analyses and objectively justified perspectives.
3. Promote the consideration of innovative or academic ideas that may enrich the methodologies and tools used by stakeholders.

Recognizing the diversity of topics related to energy in general and petroleum in particular which might be of interest to the journal's readership, articles will be considered covering relevant economics, policies and laws, supply and demand, modelling, technology and environmental matters.

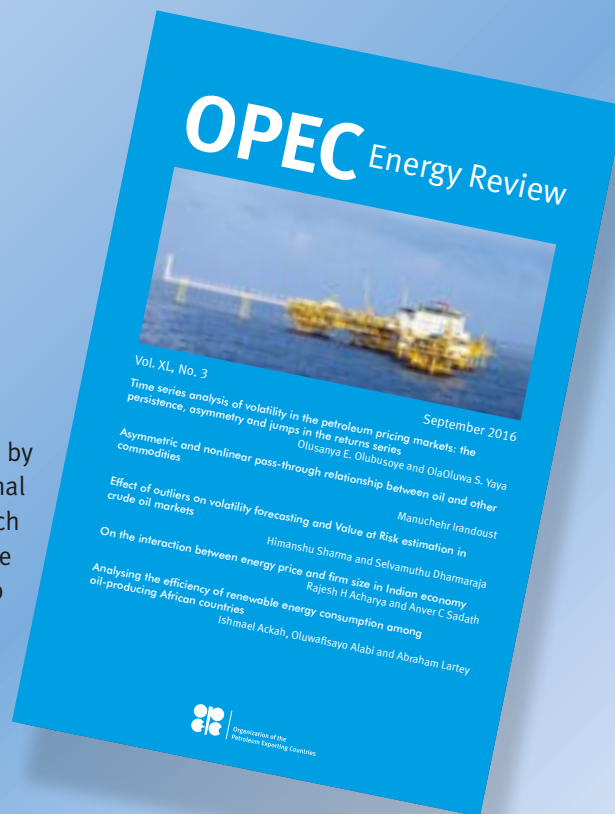
The OPEC Energy Review welcomes submissions from academics and other energy experts.

Submissions should be made via Scholar One at: <https://mc.manuscriptcentral.com/opec> (registration required).

A PDF of "Author Guidelines" may be downloaded at Wiley's OPEC Energy Review page at:

[http://onlinelibrary.wiley.com/journal/10.1111/\(ISSN\)1753-0237/homepage/ForAuthors.html](http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1753-0237/homepage/ForAuthors.html)

All correspondence about subscriptions should be sent to John Wiley & Sons, which publishes and distributes the quarterly journal on behalf of OPEC (*see inside back cover*).



## **OPEC Energy Review**

**Chairman, Editorial Board: Dr Ayed S Al-Qahtani, Director, OPEC Research Division**

**General Academic Editor: Professor Sadek Boussena**

**Executive Editor: Hasan Hafidh**

# OPEC

## Monthly Oil Market Report

**Download  
the OPEC MOMR App free of charge!**



- **Essential information on the oil market**
- **100+ interactive articles and tables detailing crude price movements, oil futures, prices and much more**
- **Analysis of the world economy, world oil supply and demand**
- **Compare data interactively and maximize information extraction**





# OPEC Secretariat unveils MOMR mobile App

*OPEC is now bringing its **Monthly Oil Market Report (MOMR)** to the world of mobile Apps. With the new App launched on June 18, 2018, the OPEC Bulletin reports on what it offers to oil industry stakeholders.*

“Innovation plays a critical role in our industry,” said Mohammad Sanusi Barkindo, OPEC Secretary General, when launching the new *MOMR* mobile App. “It ensures we remain relevant; evolve; and adapt to changing circumstances. For this reason, it is always invigorating and thrilling to participate in innovation.”

He added that it gave him pride to launch this, following on from a long line of successful OPEC innovations to promote openness in the oil industry, and fostering good relations with all stakeholders in the interests of producers, consumers and the global economy alike.

## **Anytime, anywhere, ...**

The *MOMR* App will provide users with essential information on the oil market, anytime, anywhere, with more than 100 interactive articles and tables detailing crude price movements, oil futures, prices and much more.

The quintessential components of the *MOMR* will be easily accessible, including analysis of the world economy; world oil supply and demand; refinery margins and operations; the tanker market; oil trade; market stock movements and inventories, as well as the supply and demand balance.

The App’s search engine helps users easily find

information, and its bookmarking function allows them to review their favorite articles.

Its versatility allows users to compare data interactively, thereby maximizing information extraction. Certain variables can be emphasized, trends observed or analysis undertaken.

## **Enhancing transparency**

The *MOMR* is today viewed as one of the most reputable publications in the oil industry. Disseminating its high-quality analysis via modern forms of data presentation allows for a more convenient and pleasant user experience. The App will help broaden the *MOMR* audience, enhancing transparency and encouraging research within the oil industry.

The *MOMR* App is ideal for energy professionals, officials working in the oil industry, policymakers, market analysts and media specialists, as well as academics. It is free and available for download from Google Play and the Appstore.

Barkindo noted that these developments are pivotal to the Secretariat’s digitization strategy. It follows the successful launch of Annual Statistical Bulletin (ASB) App at the ADIPEC Conference in the UAE in 2016. The ASB App is now in its third edition.



## Forthcoming events

**US base oils and lubricants summit, August 22–23, 2018**, Des Moines, IA, US. Details: Active Communications International, 5–13 Great Suffolk Street, 4<sup>th</sup> Floor, London SE1 0NS, UK. Tel: +44 207 981 98 00; fax: +44 207 593 00 71; e-mail: [claire@acieu.net](mailto:claire@acieu.net); website: [www.wplgroup.com/aci/event/us-base-oils-lubricants-summit](http://www.wplgroup.com/aci/event/us-base-oils-lubricants-summit).

**IADC/SPE Asia Pacific drilling technology conference and exhibition, August 27–29, 2018**, Bangkok, Thailand. Details: Society of Petroleum Engineers, Suite B-11-11, Level 11, Block B, Plaza Mont'Kiara, Jalan Bukit Kiara, Mont'Kiara, 50480 Kuala Lumpur, Malaysia. Tel: +60 36201 2330; fax: +60 36201 3220; e-mail: [spekl@spe.org](mailto:spekl@spe.org); website: [www.spe.org/events/en/2018/conference/18apdt/homepage.html](http://www.spe.org/events/en/2018/conference/18apdt/homepage.html).

**Abu Dhabi international downstream, September 3–4, 2018**, Abu Dhabi, UAE. Details: The World Refining Association, Bedford House, Fulham Green, 69–79 Fulham High Street, London SW6 3JW, UK. Tel: +44 207 38 48 013; fax: +44 207 38 47 843; e-mail: [enquiry@wraconferences.co.uk](mailto:enquiry@wraconferences.co.uk); website: <https://adid.wraconferences.com>.

**World heavy oil congress, September 3–5, 2018**, Muscat, Oman. Details: dmgevents, 6<sup>th</sup> floor, Northcliffe House, 2 Derry Street, London W8 5TT, UK. Tel: +44 20 3615 2873; fax: +44 20 3615 0679; e-mail: [conferencemarketing@dmgevents.com](mailto:conferencemarketing@dmgevents.com); website: [www.worldheavyoilcongress.com](http://www.worldheavyoilcongress.com).

**FPSO world conference, September 4–5, 2018**, Singapore. Details: IQPC Ltd, Anchor House, 15–19 Britten Street, London SW3 3QL, UK. Tel: +44 207 368 9300; fax: +44 207 368 9301; e-mail: [enquire@iqpc.co.uk](mailto:enquire@iqpc.co.uk); website: [www.fpsoworldcongress.com](http://www.fpsoworldcongress.com).

**SPE liquids-rich basins conference – North America, September 5–6, 2018**, Midland, TX, US. Details: Society of Petroleum Engineers, 10777 Westheimer, Suite #335, Houston, TX 77042, US. Tel: +1 713 779 9595; fax: +1 713 779 4216; e-mail: [spehou@spe.org](mailto:spehou@spe.org); website: [www.spe.org/events/en/2018/conference/18lrb/liquids-rich-basins-conference](http://www.spe.org/events/en/2018/conference/18lrb/liquids-rich-basins-conference).

**JBC energy matters seminar, September 6–7, 2018**, Vienna, Austria. Details: JBC Energy GmbH, Wollzeile 6–8, 1010 Vienna, Austria. Tel: +43 1 513 49 22; e-mail: [info@jbcenergy.com](mailto:info@jbcenergy.com); website: [www.jbcenergy.com](http://www.jbcenergy.com).

**Oil and gas Thailand 2018, September 6–8, 2018**, Bangkok, Thailand. Details: Fireworks Media (Thailand) Co. Ltd, Promphan 2 Office and Residence, 8<sup>th</sup> Floor (Office Zone, Room 807) 1 Soi Lat Phrao 3, Lat Phrao Road, Jompol, Chatuchak, Bangkok 10900, Thailand. Tel: +66 25 13 14 18; fax: +66 25 13 14 19; e-mail: [thai@asiafireworks.com](mailto:thai@asiafireworks.com); <http://oilgasthai.com>.

**Oil sands trade show and conference, September 11–12, 2018**, Fort McMurray, AB, Canada. Details: dmgevents, 6<sup>th</sup> floor, Northcliffe House, 2 Derry Street, London W8 5TT, UK. Tel: +44 20 3615 2873; fax: +44 20 3615 0679; e-mail: [conferencemarketing@dmgevents.com](mailto:conferencemarketing@dmgevents.com); <https://oilsandstradeshows.com>.

**SPE workshop: oil and gas in the East Med – from geology to commercialization, September 12–13, 2018**, Nicosia, Cyprus. Details: Society of Petroleum Engineers, Part Third Floor East, Portland House, 4 Great Portland Street, London W1W 8QJ, UK. Tel: +44 207 299 3300; fax: +44 207 299 3309; e-mail: [spelon@spe.org](mailto:spelon@spe.org); website: [www.spe.org/events/en/2018/workshop/18acyp/oil-and-gas-from-geology-to-commercialisation.html](http://www.spe.org/events/en/2018/workshop/18acyp/oil-and-gas-from-geology-to-commercialisation.html).

**10<sup>th</sup> Argus Americas petroleum coke summit, September 12–14, 2018**, Houston, TX, US. Details: Argus Media, Argus House, 175 St John Street, London EC1V 4LW, UK. Tel: +971 44 34 51 16; email: [me.events@argusmedia.com](mailto:me.events@argusmedia.com); website: [www.argusmedia.com/events/argus-events/americas/americas-petroleum-coke-summit](http://www.argusmedia.com/events/argus-events/americas/americas-petroleum-coke-summit).

**Russia and CIS gas to chemicals conference, September 17–18, 2018**, Moscow, Russia. Details: Euro Petroleum Consultants Ltd, 44 Oxford Drive, Bermondsey Street, London SE1 2FB, UK. Tel: +44 207 357 8394; fax: +44 207 357 8395; e-mail: [enquiries@europetro.com](mailto:enquiries@europetro.com); website: [www.europetro.com/event/75/O](http://www.europetro.com/event/75/O).

**Gastech exhibition and conference, September 17–20, 2018**, Barcelona, Spain. Details: dmgevents, 6<sup>th</sup> floor, Northcliffe House, 2 Derry Street, London W8 5TT, UK. Tel: +44 20 3615 2873; fax: +44 20 3615 0679; e-mail: [conferencemarketing@dmgevents.com](mailto:conferencemarketing@dmgevents.com); website: [www.gastechevent.com](http://www.gastechevent.com).

**17<sup>th</sup> Russia and CIS petrochemicals technology conference and exhibition, September 18–19, 2018**, Moscow, Russia. Details: Euro Petroleum Consultants Ltd, 44 Oxford Drive, Bermondsey Street, London SE1 2FB, UK. Tel: +44 207 357 8394; fax: +44 207 357 8395; e-mail: [enquiries@europetro.com](mailto:enquiries@europetro.com); website: [www.europetro.com/event/76/O](http://www.europetro.com/event/76/O).

**5<sup>th</sup> annual sustainable and scalable cost-effective well site facilities onshore, September 18–20, 2018**, Houston, TX, US. Details: American Business Conferences, City Centre One, 800 Town & Country Blvd, Suite 300, Houston, Texas 77024, USA. Tel: +1 800 721 3915; fax: +1 800 714 1359; e-mail: [info@american-business-conferences.com](mailto:info@american-business-conferences.com); website: [www.facilities-design-onshore.com](http://www.facilities-design-onshore.com).

**4<sup>th</sup> Uganda international oil and gas summit, September 19, 2018**, Serena Kampala, Uganda. Details: Global Event Partners Ltd, London Office, 20–22 Bedford Row, London WC1R 4JS, UK. Tel: +44 203 488 11 91; e-mail: [enquiries@gep-events.com](mailto:enquiries@gep-events.com); website: <http://uiogs.com>.

**18<sup>th</sup> Russia and CIS refining technology conference and exhibition, September 20–21, 2018**, Moscow, Russia. Details: Euro Petroleum Consultants Ltd, 44 Oxford Drive, Bermondsey Street, London SE1 2FB, UK. Tel: +44 207 357 8394; fax: +44 207 357 8395; e-mail: [enquiries@europetro.com](mailto:enquiries@europetro.com); website: [www.europetro.com/event/77/O](http://www.europetro.com/event/77/O).

**Tanzania oil and gas congress, September 24–25, 2018**, Dar Es Salaam, Tanzania. Details: CWC Associates Ltd, Regent House, Oyster Wharf, 16–18 Lombard Road, London SW11 3RF, UK. Tel: +44 207 978 000; fax: +44 207 978 0099; e-mail: [sshelton@thecwcgroup.com](mailto:sshelton@thecwcgroup.com); website: [www.cwctog.com](http://www.cwctog.com).

**World congress on oil, gas and petroleum refinery, September 24–25, 2018**, Abu Dhabi, UAE. Details: Conference Series Ltd, 47 Churchfield Road, London, W3 6AY, UK. Tel: +44 0 800 014 8923; e-mail: [petroleumrefinery@enggcconferences.com](mailto:petroleumrefinery@enggcconferences.com); website: [www.conferenceseries.com](http://www.conferenceseries.com).

**10<sup>th</sup> annual process safety summit, September 24–27, 2018**, Abu Dhabi, UAE. Details: IQPC Ltd, Anchor House, 15–19 Britten Street, London SW3 3QL, UK. Tel: +44 207 368 9300; fax: +44 207 368 9301; e-mail: [enquire@iqpc.co.uk](mailto:enquire@iqpc.co.uk); website: <https://oilandgasprocesssafety.iqpc.ae>.

**International pipeline expo, September 25–27, 2018**, Calgary, AB, Canada. Details: dmgevents, 6<sup>th</sup> floor, Northcliffe House, 2 Derry Street, London W8 5TT, United Kingdom. Tel: +44 20 3615 2873; fax: +44 20 3615 0679; e-mail: [conferencemarketing@dmgevents.com](mailto:conferencemarketing@dmgevents.com); website: <https://internationalpipelineexposition.com>.

**Sakhalin oil and gas, September 25–27, 2018**, Yuzhno-Sakhalinsk, Russia. Details: Adam Smith Conferences, 6<sup>th</sup> Floor, 29 Bressenden Place, London SW1E 5DR, UK. Tel: +44 207 017 7444; fax: +44 207 017 7447; e-mail: [info@adamsmithconferences.com](mailto:info@adamsmithconferences.com); website: [www.sakhalin-oil-gas.com](http://www.sakhalin-oil-gas.com).

**Getenergy global awards and exhibition, September 26–27, 2018**, Amsterdam, The Netherlands. Details: Clarion Events Ltd, Fulham Green, 69–79 Fulham High Street, London SW6 3JW, UK. Tel: +44 (0) 20 7384 7700; e-mail: [info@clarionevents.com](mailto:info@clarionevents.com); website: [www.energycouncil.com/event-events/global-exhibition-awards](http://www.energycouncil.com/event-events/global-exhibition-awards).

**Private investor Middle East, September 26–27, 2018**, London, UK. Details: Adam Smith Conferences, 6<sup>th</sup> Floor, 29 Bressenden Place, London SW1E 5DR, UK. Tel: +44 207 017 7444; fax: +44 207 017 7447; e-mail: [info@adamsmithconferences.com](mailto:info@adamsmithconferences.com); website: [www.privateinvestormiddleeast.com](http://www.privateinvestormiddleeast.com).



# World oil market prospects for the second half of 2018

June 2018

Recent developments in the oil market have led to pronounced uncertainty about the second half of the year. Year-to-date (y-t-d) at the end of May, crude oil prices are 30 per cent higher than in the same period last year, with ICE Brent averaging above \$70/b for the first time since 2014. Draws in crude oil inventories, healthy oil demand and geo-political developments have supported this rising trend. NYMEX WTI futures also rose to average \$65.09/b during this time, but were trailing other markets due to high US oil production, as well as the strengthening of the US dollar. Recently, crude oil futures have lost some momentum amid uncertainty as traders prepare for potentially more supply returning to the market.

Global economic activity has slowed in 1Q18, with growth below expectations in the major OECD economies. The global growth forecast for 2018 remains at 3.8 per cent, with a pick up expected in the second half of the year, led by the US, whose economic performance will be supported by the fiscal stimulus measures. Moreover, Japan and the Euro-zone are projected to accelerate in 2H18, following a slow start to the year. While the OECD shows upside potential, the major emerging economies will likely slow from relatively higher activity in 1H18. China is expected to continue financial tightening, which combined with monetary measures in the US, could dampen growth in 2H18. India is also forecast to show lower growth in the second half of the year, after a strong recovery during 1H18.

Brazil and Russia are projected to remain stable in 2H18, subject to short-term commodity prices and political developments. Moreover, the re-emergence of global trade barriers, continued growing debt levels and potentially rising volatility in asset markets amid ongoing monetary tightening, are some of the challenges that may negatively impact the 2H18 growth dynamic.

Turning to the oil market, global oil demand growth is anticipated at 1.61 million barrels/day y-o-y in 2H18, with total oil consumption projected to surpass the 100m b/d threshold during 4Q18. In 2H18, OECD countries are projected to sustain the positive momentum with most of

the growth seen in OECD Americas, mainly supported by a healthy US economy. OECD Europe is forecast to continue to show steady oil demand growth, largely driven by middle distillates. Non-OECD countries are again projected to lead oil demand growth with 1.28m b/d y-o-y in 2H18. Growth is mainly focused in China, in the transportation and industrial sectors. The steady economic development in most Other Asian countries, including India, will also contribute.

While oil demand in the US, China and India shows some upside potential, downside risks might limit this potential going forward, including a slowdown in the pace of economic growth in some major economies, stronger impact of policy reform with regard to retail prices, and further substitution toward natural gas.

Meanwhile, non-OPEC oil supply in 2H18 is anticipated to increase by 2.0m b/d y-o-y. The US is the main driver, contributing 1.4m b/d to growth, followed by Canada and Brazil. Non-OPEC supply growth is forecast to show further upside potential for the rest of the year, due to higher drilling activity in the US, more new project start-ups in Brazil and possibly higher output following the end of heavy maintenance at upgrading facilities in Canada.

Given the Secretariat's forecast for 2H18, demand for OPEC crude is projected at 33.3m b/d, down by 500,000 b/d from 2H17. However, looking at various sources, considerable uncertainty as to world oil demand and non-OPEC supply prevails, leading to a wide forecast range for demand for OPEC crude of around 1.8m b/d. This outlook for 2H18 warrants close monitoring of the factors impacting both world oil demand and non-OPEC supply that will shape the outlook of the oil market going forward.



# MOMR ... oil market highlights

June 2018

**Crude oil price movements** — In May, the OPEC Reference Basket (ORB) increased by about 8.5 per cent above the previous month, settling at \$74.11/b. Year-to-date in May, the ORB value was 31.7 per cent higher at \$67.48/b, compared to the same period in 2017. In comparison, Dated Brent rose by 7.4 per cent, Dubai by 8.7 per cent and spot WTI by 5.4 per cent, m-o-m. The oil market continues to be underpinned by escalating geopolitical tensions and bullish drawdowns in US crude inventories. However, late in the month, prices slipped on talk of a potential easing of output adjustments. With regard to crude oil futures, ICE Brent was \$5.24/b, or 7.3 per cent, higher at \$77.01/b, while NYMEX WTI gained \$3.66, or 5.5 per cent, to average \$69.98/b m-o-m. Y-t-d, ICE Brent is 30.6 per cent higher at \$70.22/b, while NYMEX WTI rose 27.7 per cent to \$65.09/b, compared to the same period a year earlier. The ICE Brent/NYMEX WTI spread widened by \$1.59 to \$7.02/b in May, on increasing US supplies. Despite the surge in crude oil futures prices, speculative net long positions ended lower. The Dubai market structure moved deeper into backwardation, while that of Brent eased markedly and WTI remained unchanged. The sweet/sour differentials narrowed in Europe and Asia, while in the US Gulf Coast (USGC), the spread widened.

**World economy** — The global GDP growth forecast remains at 3.8 per cent for 2018, following growth of 3.8 per cent in 2017. Expected US growth in 2018 is unchanged from the previous month at 2.7 per cent, after growth of 2.3 per cent in 2017. Growth in Japan was revised down to 1.2 per cent in 2018, following growth of 1.7 per cent in 2017. The Euro-zone's 2018 growth forecast remains at 2.2 per cent, after growth of 2.5 per cent in 2017. Both India's and China's 2018 forecasts are unchanged at 7.3 per cent and 6.5 per cent, following 2017 GDP growth of 6.3 per cent and 6.9 per cent, respectively. Growth in Brazil was revised down to 1.9 per cent in 2018, following growth of 1.0 per cent in 2017. Russia's GDP growth forecast remained unchanged at

1.8 per cent in 2018, following growth of 1.5 per cent in 2017.

**World oil demand** — World oil demand growth in 2017 remained unchanged at 1.65m b/d to stand at 97.20m b/d, unchanged from the previous month's report. In 2018, projected oil demand growth was also kept unchanged despite some offsetting revisions in both OECD and non-OECD. Global oil demand is now estimated at 1.65m b/d y-o-y to average 98.85m b/d. OECD consumption is forecast to grow by 400,000 b/d in 2018, some 20,000 b/d higher than in the previous report, following positive revisions in OECD Americas. Meanwhile, oil demand in the non-OECD is now projected to grow by 1.27m b/d, showing a downward revision of 20,000 b/d from last month's assessment. While China's and Other Asia's oil demand was revised up, this was more than offset by downward revisions in Latin America and the Middle East.

**World oil supply** — Non-OPEC supply growth in 2017 stands at 880,000 b/d y-o-y, revised up marginally by 10,000 b/d from last month's assessment due to rounding. For 2018, total non-OPEC supply was revised up by 130,000 b/d, to 59.75m b/d, representing y-o-y growth of 1.86m b/d. Upward revisions were made for 1Q18 in the OECD, particularly the US and Canada, and also in the forecast of 2Q18 in the OECD, FSU and China, due to higher-than-expected output. However, these upward revisions were offset by downward revisions the same quarters. OPEC NGLs and non-conventional liquids' production was revised down by 74,000 b/d for 2017 to now show growth of 90,000 b/d y-o-y and average 6.23m b/d. For 2018, OPEC NGLs and non-conventional liquids are forecast to grow by 120,000 b/d and average 6.35m b/d. In May 2018, OPEC crude oil production increased by 35,000 b/d, to average 31.87m b/d, according to secondary sources.

**Product markets and refining operations** — Product markets in the Atlantic Basin showed

positive performances in May with gains all across the barrel. In the US, improved domestic gasoline demand, along with a relatively tighter middle distillates and fuel oil market, drove refinery margins beyond last year's record-high figures. In Europe, product markets retained the gains achieved in the previous month with most of the support stemming from the top and bottom of the barrel. Record-high product prices witnessed in May weighed on refinery margins and probably prevented further upside. Meanwhile, product markets in Asia weakened marginally, pressured by slower jet/kerosene demand and rising inventory levels.

**Tanker market** — In May, the dirty tanker market showed some positive developments with spot freight rates mostly gaining across number of routes compared with the previous month. On average, dirty tanker freight rates rose by 18 per cent m-o-m while average clean spot freight rates remained flat. The increase in spot rates came on the back of enhanced activities, tightening of the tonnage lists as well as port and weather delays. However, rate gains in both sectors were only relative, as market returns remain low, pressured by high bunker prices.

**Stock movements** — Preliminary data for April shows that total OECD commercial oil stocks fell by 6.7m b m-o-m to stand at 2,811m b, which is 26m b below the latest five-year average, but remain 240m b above January 2014 levels. Crude stocks indicated a slight surplus of 400,000 b, while product stocks witnessed a deficit of 26m b below the latest five-year average. In terms of days of forward cover, OECD commercial stocks fell in April to stand at 59.1 days, which is 2.2 days lower than the latest five-year average.

**Balance of supply and demand** — In 2017, demand for OPEC crude is estimated to stand at 33.1m b/d, which is 700,000 b/d higher than a year earlier. In 2018, demand for OPEC crude is forecast at 32.7m b/d, a decline of 300,000 b/d from the previous year's level.



*The feature article and oil market highlights are taken from OPEC's Monthly Oil Market Report (MOMR) for June 2018. Published by the Secretariat's Petroleum Studies Department, the publication may be downloaded in PDF format from our Website ([www.opec.org](http://www.opec.org)), provided OPEC is credited as the source for any usage. The additional graphs and tables on the following pages reflect the latest data on OPEC Reference Basket and crude and oil product prices in general.*



# Oil market outlook for 2019

July 2018

Following the robust growth seen this year, oil market developments are expected to slightly moderate in 2019, with the world economy and global oil demand forecasts to grow slightly less, while non-OPEC supply growth is projected to remain broadly steady.

According to the initial forecast, the world economy is expected to expand by 3.6 per cent in 2019, slightly below the 2018 growth forecast of 3.8 per cent. This reflects some slowdown in the OECD economies, mainly due to the expected monetary tightening, in particular in the US, to some extent in the Euro-zone, and less so in Japan. In the major emerging economies, performance will range from slight growth in India, supported by government spending to a slight deceleration in China as a consequence of the country's continued financial tightening. Russia will remain broadly steady while Brazil will pick up slightly.

The re-emergence of global trade barriers has thus far only had a minor impact on the global economy. The 2019 forecast considers no significant rise in trade tariffs and that current disputes will be resolved soon. The increase in global trade has been a significant factor lifting world economic growth to higher levels in both 2017 and 2018. Hence, if trade tensions rise further, and given other uncertainties, it could weigh on business and consumer sentiment. This may then start to negatively impact investment, capital flows and consumer spending, with a subsequent negative effect on the global oil market.

World oil demand in 2019 is forecast to grow by 1.45 million barrels/day y-o-y, compared to 1.65m b/d in 2018. The OECD region is anticipated to grow by 270,000 b/d, with demand in OECD Americas driven by solid NGL and middle distillate requirements. Europe is projected to continue see an expansion, albeit at a slower pace, as economic growth projections ease slightly, while Asia-Pacific oil demand is anticipated to weaken in light of planned substitution programmes. In the non-OECD region, growth is anticipated at around 1.18m b/d. Slightly lower Chinese oil demand growth, compared with 2018, is expected to be offset by higher oil requirements, main-

ly in Latin America and the Middle East. As for products, the focus will be on light and middle distillates to meet demand from the growing petrochemical sector, industrial activities, as well as expanding global vehicle sales. However, risks remain, related to economic developments in major consuming nations; substitution with natural gas and other fuels; subsidy programmes and their removal strategies; the commissioning and possible delays, or cancellation, of petrochemical projects; and programmes for fuel efficiencies, especially in the transportation sector.

Non-OPEC oil supply for 2019 is forecast to grow by 2.1m b/d y-o-y, broadly unchanged from 2018. This is mainly due to the expected increase in North America and new project ramp ups in Brazil. Leading the non-OPEC supply declines are Mexico, Norway and China, mainly due to the absence of new projects and heavy declines in mature fields. The pace of US shale growth will slow down considerably in 2H18 and continue into 2019 as the Permian faces take-away capacity constraints. Some of the planned pipeline capacity increases have been delayed, and as a result, the takeaway capacity issue could remain a major constraint until next winter. Moreover, the rig count, along with well completions, could start to slow and well productivity could decline as operators expand production beyond 'sweet spots'. Elsewhere, production ramp-ups through new projects are anticipated to support supply in Brazil next year, while Canada continues to expand its oil output, particularly from oil sands.

The forecast suggests that demand for OPEC-15 crude is expected to average 32.2m b/d in 2019, down by around 800,000 b/d from 2018. Therefore, if the world economy performs better than expected, leading to higher growth in crude oil demand, OPEC will continue to have sufficient supply to support oil market stability.



# MOMR ... oil market highlights

July 2018

**Crude oil price movements** — The OPEC Reference Basket (ORB) eased by 1.2 per cent month-on-month (m-o-m) in June to average \$73.22/b. The ORB ended 1H18 higher at \$68.43/b, up more than 36 per cent since the start of the year. Similarly, Dated Brent, WTI and Dubai all decreased by 3.5 per cent, 3.1 per cent and 0.8 per cent, respectively. Crude oil futures prices mostly fell on expectations that OPEC and participating non-OPEC producers in the 'Declaration of Cooperation' will gradually increase production to full conformity levels. ICE Brent averaged \$1.07 (1.4 per cent) lower at \$75.94/b in June m-o-m, while NYMEX WTI lost \$2.66 (3.8 per cent) to average \$67.32/b. Similarly, DME Oman decreased by 97¢ (1.36 per cent) to stand at \$73.63/b. The Brent/WTI spread widened further to \$8.62/b in June m-o-m. Year-to-date, ICE Brent is 35.1 per cent higher at \$71.16/b, while NYMEX WTI has risen 31.1 per cent to \$65.46/b, compared to the same period a year earlier. The speculative net long positions ended June higher, particularly NYMEX WTI, with the long to short ratio increasing sharply to 21:1 from 7:1. All three markets have returned to a strong backwardation, with that of WTI improving significantly on tighter supplies at Cushing, Oklahoma. The sweet/sour differentials narrowed considerably in Europe and Asia, while in the US Gulf Coast (USGC) the spread widened slightly.

**World economy** — The global GDP growth forecast remains at 3.8 per cent for 2018, followed by expected growth of 3.6 per cent in 2019. US economic growth in 2018 is forecast to benefit further from the current momentum. It was revised up by 0.1 per cent reaching 2.8 per cent, followed by anticipated growth of 2.4 per cent in 2019. Growth in Japan remains at 1.2 per cent in 2018, and the same level is forecast for 2019. The Euro-zone's growth forecast remains at 2.2 per cent for 2018, and is estimated to decelerate to 2.0 per cent in 2019. Both India's and China's 2018 forecasts are unchanged at 7.3 per cent and 6.5 per cent, respectively. China is forecast to slow to 6.2 per cent in 2019, while India's growth is expected to increase slightly to 7.4 per cent. Growth in Brazil was revised down by 0.2 per cent reaching 1.7 per cent in 2018, but a mild rebound to 2.1 per cent is anticipated in 2019.

Russia's GDP growth forecast remains unchanged at 1.8 per cent in 2018, and the same level of growth is anticipated for 2019.

**World oil demand** — In 2018, oil demand is expected to grow by 1.65m b/d, unchanged from the previous month's assessment, with expectations for total world consumption at 98.85m b/d. In 2019, the initial projection indicates a global increase of around 1.45m b/d, with annual average global consumption anticipated to surpass the 100m b/d threshold. The OECD is once again expected to remain in positive territory, registering a rise of 270,000 b/d with the bulk of gains originating in OECD America. The non-OECD region is anticipated to lead oil demand growth in 2019 with initial projections indicating an increase of around 1.18m b/d, most of which is attributed to China and India. Additionally, a steady acceleration in oil demand growth is projected in Latin America and the Middle East.

**World oil supply** — Non-OPEC oil supply (now excluding the Republic of the Congo) in 2018 was revised up from the previous MOMR by 140,000 b/d to average 59.54m b/d. This represents an increase of 2.0m b/d year-on-year. Non-OPEC oil supply in 2019 is projected to expand by 2.1m b/d, to average 61.64m b/d. The main growth drivers are expected to be the US, followed by Brazil, Canada, Australia, Kazakhstan and the UK, while Mexico, China and Norway are expected to witness the main declines. OPEC NGLs production in 2018 and 2019 is expected to grow by 120,000 b/d and 110,000 b/d to average 6.35m b/d and 6.46m b/d, respectively. In June, OPEC-15 production, including its newest Member Country, the Republic of the Congo, increased by 173,000 b/d to average 32.33m b/d, according to secondary sources.

**Product markets and refining operations** — Recent higher crude prices impacted negatively on product markets in June, keeping margins and gasoline demand in all main trading hubs suppressed. In the US, product markets showed substantial counterseasonal losses, where pressure emerged from across the barrel, with the exception of fuel oil. In

Europe, product markets lost some ground as pressure from poor performance at the top of the barrel, outweighed gains witnessed at the bottom of the barrel. The latter was attributed to an arbitrage opening for diesel deliveries to Asia and continued seasonal pick-up in fuel oil demand. Product markets in Asia exhibited losses with pressure on all main products except fuel oil. The strong gasoline market surplus, coupled with slower gasoline demand from the Middle East and high product output, heavily pressured product markets.

**Tanker market** — In June, the crude oil tanker market sentiment strengthened slightly, as average dirty tanker spot freight rates increased on most reported routes, although the gains were mostly minor. On average, spot freight rates for VLCC and Suezmax rose in June, while Aframax rates were flat. Despite a high number of fixtures seen in the VLCC market, average dirty spot freight rate gains were limited, as the gains, registered mostly in the East, were offset by the high spot vessel availability. Suezmax and Aframax freight rates benefited from the firm market in the Caribbean, but a decline in loading requirements in the Mediterranean led to a dampening in average rates there. Clean tanker spot freight rates evolved negatively in June as medium range (MR) tanker freight rates declined on all routes bar one, with the only exception being Middle East-to-East fixtures.

**Stock movements** — Preliminary data for May showed that total OECD commercial oil stocks rose by 8.6m b, m-o-m, to stand at 2,823m b. This was 236m b lower than the same time one year ago, and 40m b below the latest five-year average. However, stocks remain 253m b above the January 2014 level. In terms of days of forward cover, OECD commercial stocks fell in May to stand at 58.8 days, which is 2.4 days lower than the latest five-year average.

**Balance of supply and demand** — In 2018, demand for OPEC-15 crude is estimated at 32.9m b/d, around 500,000 b/d lower than the 2017 level. In 2019, demand for OPEC-15 crude is forecast at 32.2m b/d, around 800,000 b/d lower than the 2018 level.



*The feature article and oil market highlights are taken from OPEC's Monthly Oil Market Report (MOMR) for July 2018. Published by the Secretariat's Petroleum Studies Department, the publication may be downloaded in PDF format from our Website ([www.opec.org](http://www.opec.org)), provided OPEC is credited as the source for any usage. The additional graphs and tables on the following pages reflect the latest data on OPEC Reference Basket and crude and oil product prices in general.*



**Table 1: OPEC Reference Basket spot crude prices** \$/b

Crude/Member Country	2017						2018						Weeks 22–26/2018 (week ending)					
	Jun	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jun 1	Jun 8	Jun 15	Jun 22	Jun 29
Arab Light – Saudi Arabia	45.21	47.12	49.63	53.29	55.73	61.08	62.50	67.42	64.03	64.40	68.91	74.68	74.26	74.70	74.58	74.80	72.60	74.83
Basrah Light – Iraq	44.55	46.43	49.26	53.03	55.02	60.21	61.44	66.11	62.31	62.27	67.06	72.83	71.90	72.59	72.13	72.31	70.39	72.58
Bonny Light – Nigeria	46.92	48.66	51.69	56.55	57.97	63.29	64.64	69.92	66.02	67.05	72.75	77.73	74.86	76.48	74.72	74.71	73.95	75.96
Djeno – Congo*	44.30	47.15	51.04	55.89	56.71	61.75	62.83	67.42	62.97	64.08	69.31	73.84	70.58	72.55	70.33	70.87	69.55	71.49
Es Sider – Libya	44.87	46.96	50.31	55.07	56.48	61.58	63.09	68.23	64.36	64.89	70.43	75.25	72.27	73.98	72.13	72.12	71.36	73.37
Girassol – Angola	46.46	48.75	52.31	56.83	57.88	62.97	64.97	69.77	66.09	66.89	71.80	76.75	73.54	75.38	73.53	73.32	72.56	74.61
Iran Heavy – IR Iran	44.62	46.01	48.70	52.27	54.29	59.27	60.87	65.85	62.27	62.15	66.56	72.15	71.69	72.19	71.98	72.17	69.99	72.35
Kuwait Export – Kuwait	44.37	46.19	48.70	52.23	54.50	59.58	60.94	65.74	62.14	62.23	66.99	72.55	72.38	72.67	72.71	72.94	70.67	72.94
Marine – Qatar	46.26	47.45	49.71	52.91	55.14	60.47	61.54	66.36	63.14	63.39	67.63	73.36	72.94	73.36	73.35	73.65	71.22	73.31
Merey – Venezuela	42.49	43.41	45.38	49.13	50.70	55.86	56.04	59.14	57.68	56.94	60.25	68.29	69.25	68.87	69.58	69.78	67.08	70.57
Murban – UAE	47.86	49.02	51.51	54.94	57.39	62.76	63.84	68.81	65.88	66.31	70.97	76.71	76.18	76.60	76.62	76.73	74.29	76.81
Oriente – Ecuador	43.11	45.21	47.45	51.30	53.77	59.23	59.66	63.53	60.28	61.16	65.37	70.39	70.05	70.00	70.14	70.37	68.93	70.76
Rabi Light – Gabon	45.45	47.54	50.69	55.10	56.31	61.66	63.17	68.16	64.19	64.92	70.61	75.88	73.11	74.67	73.06	73.05	72.29	73.91
Saharan Blend – Algeria	46.07	47.96	51.31	56.32	57.88	63.23	64.74	69.93	66.01	66.69	72.13	77.25	73.37	75.80	73.23	73.22	72.46	74.47
Zafiro – Equatorial Guinea	45.92	48.19	51.67	56.57	57.73	62.75	64.34	69.23	65.19	65.91	71.43	76.68	73.84	75.54	73.93	73.76	72.76	74.79
OPEC Reference Basket	45.21	46.93	49.60	53.44	55.50	60.74	62.06	66.85	63.48	63.76	68.43	74.11	73.22	73.89	73.46	73.61	71.66	73.94

**Table 2: Selected spot crude prices** \$/b

Crude/country	2017						2018						Weeks 22–26/2018 (week ending)					
	Jun	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jun 1	Jun 8	Jun 15	Jun 22	Jun 29
Arab Heavy – Saudi Arabia	43.64	45.76	48.55	51.78	53.99	59.03	60.47	65.24	61.60	61.49	66.47	72.24	72.30	72.52	72.69	72.93	70.47	72.85
Brega – Libya	45.77	47.61	50.76	55.34	56.78	61.99	63.54	68.68	64.96	65.64	71.33	76.35	73.47	75.10	73.33	73.32	72.56	74.57
Brent Dtd – North Sea	46.42	48.51	51.66	56.07	57.28	62.63	64.14	69.13	65.16	65.89	71.58	76.85	74.17	75.64	74.03	74.02	73.26	75.27
Dubai – UAE	46.38	47.59	50.24	53.51	55.63	60.81	61.61	66.15	62.69	62.76	68.29	74.20	73.61	74.17	74.00	74.25	71.75	74.19
Ekofisk – North Sea	46.40	48.63	52.30	57.15	57.85	63.28	64.98	69.99	65.81	66.63	72.61	78.28	73.99	75.46	73.80	73.78	73.26	75.05
Iran Light – IR Iran	43.85	47.03	50.85	54.45	56.25	62.12	63.37	68.32	62.64	63.44	68.76	74.60	72.56	73.89	72.77	72.55	71.55	73.24
Isthmus – Mexico	48.21	50.75	52.92	55.20	56.08	61.35	62.57	67.57	64.83	65.40	68.10	73.03	70.92	71.18	69.78	70.46	71.18	72.42
Oman – Oman	46.50	47.63	50.37	53.95	55.63	60.84	61.63	66.42	63.00	63.31	68.34	74.38	73.69	74.68	74.07	74.30	71.89	74.21
Suez Mix – Egypt	43.82	46.12	49.59	53.19	55.11	60.83	62.04	66.99	61.31	61.93	67.62	73.67	71.85	72.98	71.86	71.92	70.92	72.61
Minas – Indonesia*	42.65	43.96	45.91	49.20	50.55	55.50	56.95	60.91	58.15	58.90	63.53	68.26	76.72	67.54	75.42	78.34	76.27	78.41
Urals – Russia	45.52	47.82	51.30	54.89	56.81	62.53	63.75	68.69	63.01	63.63	69.16	75.23	73.55	74.87	73.56	73.62	72.62	74.31
WTI – North America	45.17	46.67	48.03	49.71	51.57	56.67	57.94	63.70	62.15	62.76	66.32	69.89	67.70	67.14	65.34	66.21	66.77	72.85

Notes:

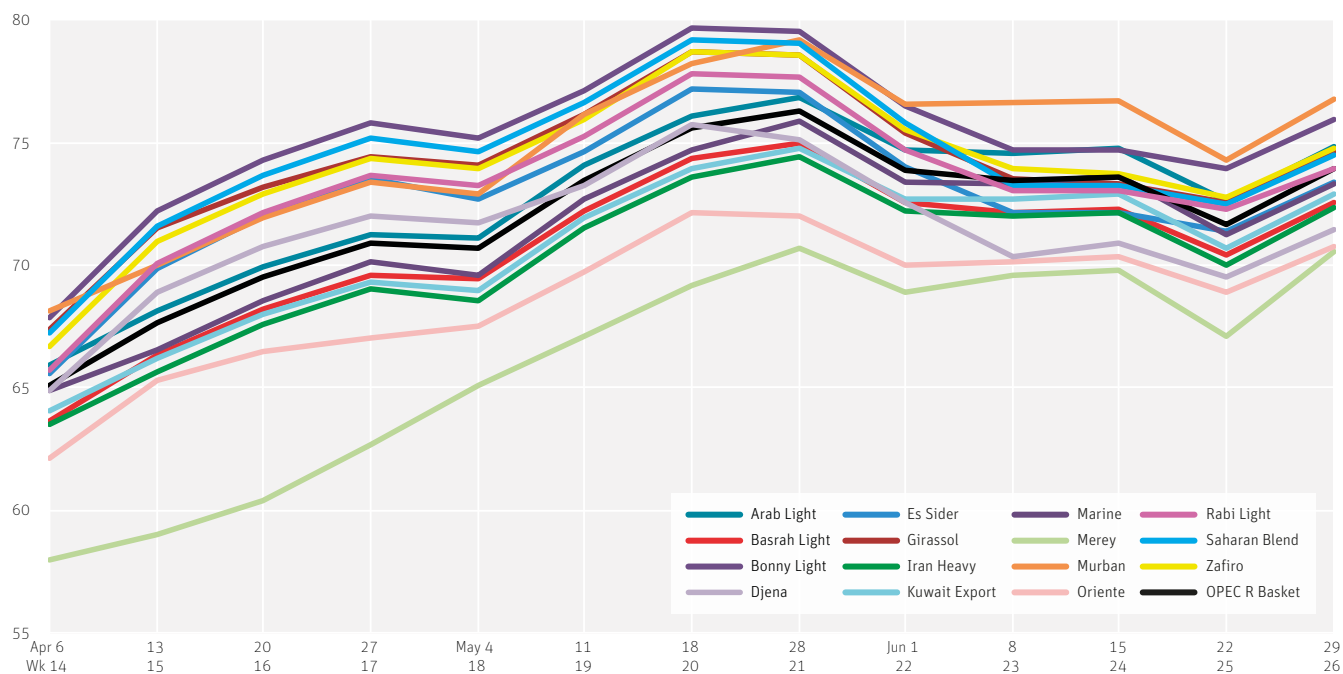
Brent for dated cargoes; Urals cif Mediterranean. All others fob loading port.

\* The Republic of the Congo joined on June 22, 2018.

Sources: Argus; Secretariat's assessments.

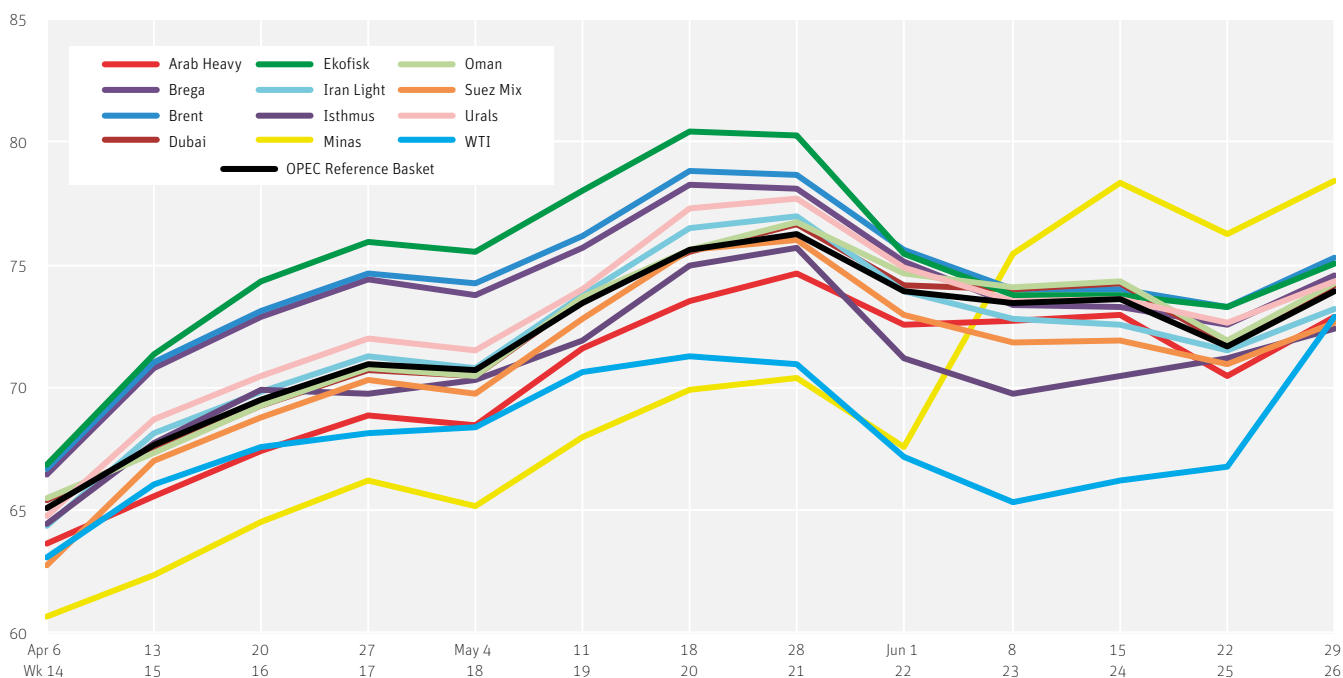
Graph 1: Evolution of the OPEC Reference Basket spot crude prices, 2018

\$/b



Graph 2: Evolution of selected spot crude prices, 2018

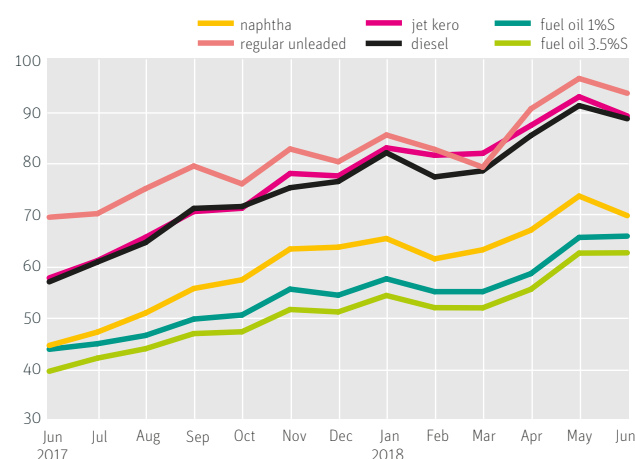
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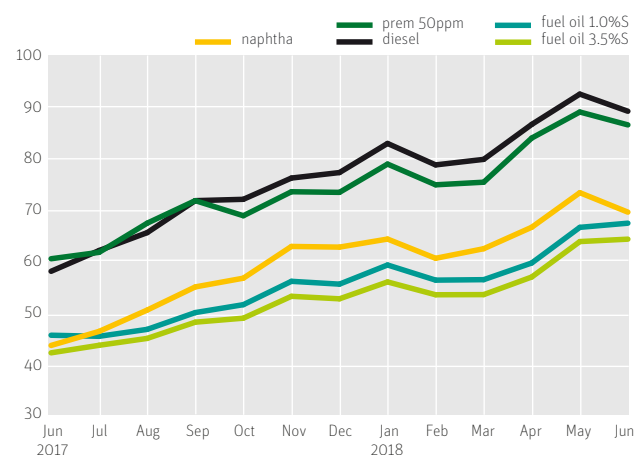


**Table and Graph 3: North European market — spot barges, fob Rotterdam**
**\$/b**

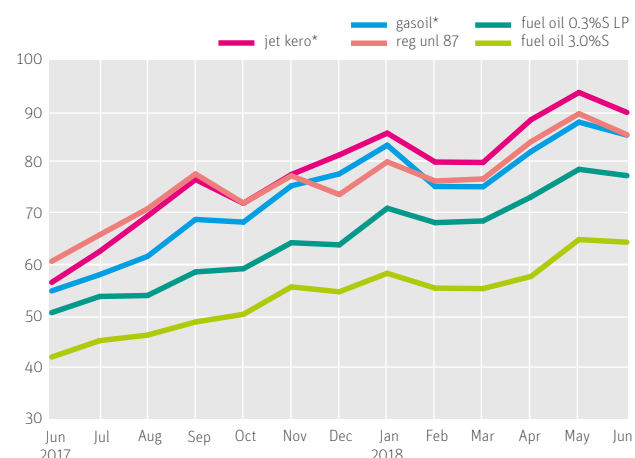
		naphtha	regular gasoline unleaded	diesel ultra light	jet kero	fuel oil 1 per cent S	fuel oil 3.5 per cent S
2017	June	44.69	69.62	57.06	57.81	43.95	39.68
	July	47.29	70.31	60.90	61.17	45.03	42.23
	August	51.00	75.17	64.70	65.71	46.64	44.06
	September	55.76	79.57	71.33	70.72	49.82	47.00
	October	57.45	76.10	71.69	71.36	50.61	47.35
	November	63.44	82.88	75.35	78.12	55.64	51.68
	December	63.79	80.40	76.56	77.64	54.46	51.21
2018	January	65.48	85.60	82.15	83.10	57.65	54.41
	February	61.52	82.80	77.45	81.65	55.15	52.04
	March	63.29	79.34	78.64	82.03	55.15	52.00
	April	67.11	90.68	85.49	87.45	58.66	55.61
	May	73.73	96.58	91.30	93.03	65.69	62.64
	June	69.92	93.71	88.75	89.30	65.94	62.70


**Table and Graph 4: South European market — spot cargoes, fob Italy**
**\$/b**

		naphtha	premium gasoline 50ppm	diesel ultra light	fuel oil 1 per cent S	fuel oil 3.5 per cent S
2017	June	43.57	59.92	58.01	45.56	42.13
	July	46.31	61.17	62.06	45.35	43.60
	August	50.46	66.85	65.54	46.70	44.94
	September	54.97	71.24	71.77	49.97	48.10
	October	56.67	68.30	72.03	51.51	48.88
	November	62.85	72.97	76.17	56.06	53.14
	December	62.72	72.85	77.24	55.51	52.65
2018	January	64.29	78.36	82.91	59.24	55.94
	February	60.54	74.32	78.73	56.29	53.44
	March	62.41	74.83	79.81	56.38	53.47
	April	66.59	83.43	86.62	59.63	56.90
	May	73.32	88.50	92.52	66.57	63.80
	June	69.53	85.99	89.18	67.38	64.27


**Table and Graph 5: US East Coast market — spot cargoes, New York**
**\$/b, duties and fees included**

		regular gasoline unleaded 87	gasoil*	jet kero*	fuel oil 0.3 per cent S	fuel oil 3.0 per cent S
2017	June	60.62	54.86	56.52	50.63	41.98
	July	65.78	58.03	62.55	53.78	45.17
	August	70.86	61.59	69.45	53.97	46.26
	September	77.64	68.78	76.57	58.56	48.81
	October	71.96	68.26	71.93	59.19	50.31
	November	77.29	75.33	77.53	64.25	55.65
	December	73.63	77.66	81.35	63.83	54.69
2018	January	80.00	83.24	85.59	70.96	58.29
	February	76.27	75.20	79.96	68.16	55.40
	March	76.67	75.15	79.88	68.49	55.31
	April	83.93	82.00	88.20	73.16	57.68
	May	89.38	87.73	93.51	78.54	64.86
	June	85.29	85.21	89.62	77.31	64.35

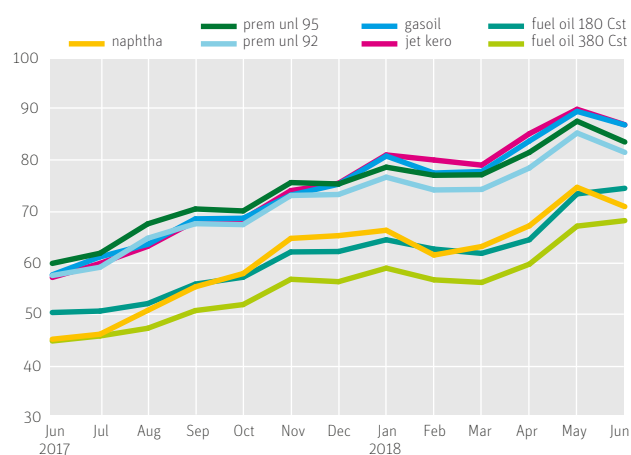


\* FOB barge spot prices.

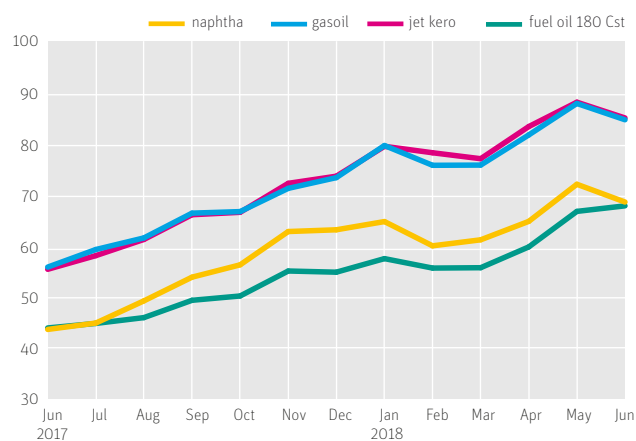
Source: Argus. Prices are average of available days.

**Table and Graph 6: Singapore market — spot cargoes, fob**
**\$/b**

		naphtha	premium gasoline unl 95	premium gasoline unl 92	gasoil	jet kero	fuel oil 180 Cst	fuel oil 380 Cst
2017	June	44.94	59.78	57.41	57.54	57.03	50.17	44.60
	July	45.92	61.76	59.02	61.05	59.77	50.45	45.58
	August	50.58	67.51	64.70	63.51	63.11	51.91	47.08
	September	55.20	70.43	67.55	68.49	68.08	55.73	50.55
	October	57.79	70.04	67.37	68.61	68.36	57.07	51.72
	November	64.67	75.59	73.07	73.14	74.02	62.02	56.67
	December	65.21	75.32	73.26	75.27	75.45	62.10	56.20
2018	January	66.26	78.61	76.65	80.78	81.00	64.40	58.85
	February	61.41	77.02	74.15	77.46	80.01	62.58	56.56
	March	63.08	77.12	74.25	77.75	79.00	61.74	56.05
	April	67.14	81.50	78.45	83.72	85.16	64.41	59.63
	May	74.66	87.60	85.29	89.52	89.93	73.38	67.07
	June	70.89	83.53	81.50	86.87	86.91	74.47	68.15


**Table and Graph 7: Middle East Gulf market — spot cargoes, fob**
**\$/b**

		naphtha	gasoil	jet kero	fuel oil 180 Cst
2017	June	43.92	56.05	55.62	44.21
	July	45.16	59.47	58.28	45.09
	August	49.48	61.73	61.43	46.22
	September	54.09	66.55	66.24	49.59
	October	56.49	66.85	66.71	50.43
	November	62.97	71.37	72.35	55.29
	December	63.31	73.46	73.74	55.06
2018	January	64.91	79.71	79.55	57.70
	February	60.19	75.86	78.30	55.86
	March	61.36	75.90	77.14	55.93
	April	64.95	81.77	83.40	59.98
	May	72.17	87.89	88.14	66.89
	June	68.71	84.72	85.07	67.97



Source: Argus. Prices are average of available days.



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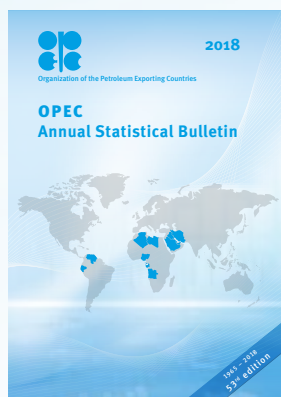
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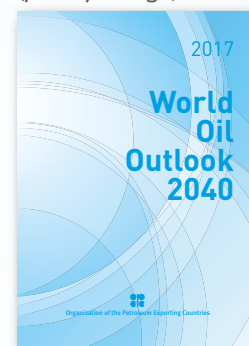


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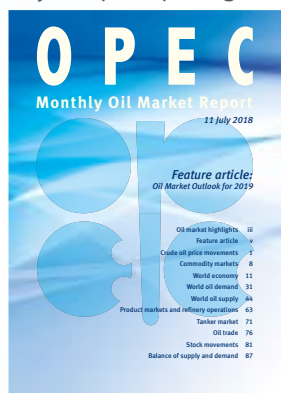
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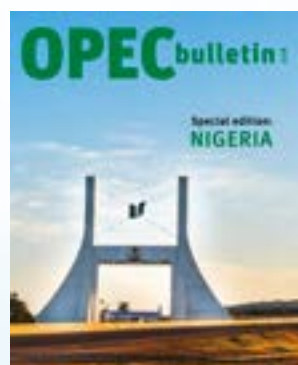


- Crude oil and product prices analysis
- Member Country output figures
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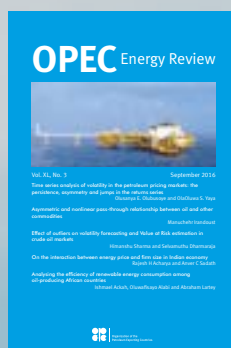
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