

# OPEC bulletin

1/13



*Qatar climate talks:  
New 'Gateway' opens*

# Call for papers

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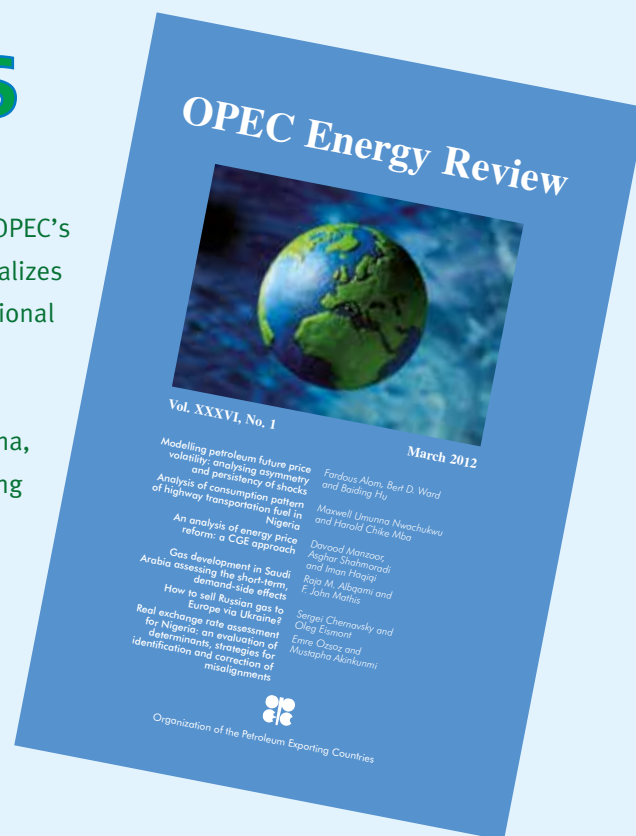
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Endnotes should be indicated in the text consecutively, with superscript numbers, and should be explained in a list at the end of the text. Reference citations in the text should be by last name(s) of author (s) and date (for joint authorship of three or more names, the words '*et al*' should be inserted after the first name); references should be spelt out and listed in alphabetical order at the end of the paper (after the endnote listings). For more details of style, please refer to a recent issue of the OPEC Energy Review.

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# Doha agreement paves way for new climate action

Doha opened up “a new gateway to bigger ambition and to greater action” at the latest round of climate change negotiations in the Qatari capital.

This was the clear message from the host country’s Deputy Prime Minister and Head of the Emir’s Court, Abdullah Bin Hamad Al Attiyah, at the end of the 18<sup>th</sup> Conference of the Parties (COP18) to the United Nations Framework Convention on Climate Change (UNFCCC). The event was held jointly with the Eighth Meeting of Parties [CMP8] to the Kyoto Protocol.

Al Attiyah, also President of COP18/CMP8, stressed that governments must now move quickly “through the Doha Climate Gateway” to push forward with solutions to climate change. In doing so, he was echoing the sentiments of other top OPEC Member Country delegates at the meeting.

The ‘gateway’ marks the beginning of discussions on a universal, legally-binding international agreement on cutting greenhouse gas emissions, which should be ratified in 2015 and come into force by 2020. The breakthrough meeting also saw the launch of the second commitment period of the Protocol, to last eight years. On top of this, the Parties endorsed the completion of new institutions and agreed on ways of delivering scaled-up climate finance and technology to developing countries.

Less than a week after COP18/CMP8, OPEC’s Conference noted “with satisfaction that the event’s positive conclusion paved the way for a new course of action for designing the future climate change regime.”

This comment was hardly a surprise because OPEC collectively and its Member Countries individually have involved themselves heavily in the climate change talks since they started in the early 1980s.

After all, the stakes are very high for developing countries whose economies are heavily dependent on petroleum export revenue. As OPEC Secretary General Abdalla Salem El-Badri put it in the Organization’s formal statement to the Doha meeting: these countries are “doubly vulnerable” – to the effects of climate change itself and to the adverse impacts of response measures.

The statement said that climate change was a threat to sustainable development and “concerned all of us”. It stressed that the Convention’s principles and provi-

sions “should remain the cornerstone of climate change negotiations, in particular the principles of common but differentiated responsibilities and of equity, and with economic development and poverty eradication the overriding priorities of developing countries.” Turning to the Protocol, it added that developed countries, given their historical responsibility, should take the lead in mitigation and adaptation efforts. This included using their extensive financial and technological capabilities to help developing countries with their mitigation and adaptation activities.

Thus, the statement contended, “the provisions contained in the UNFCCC and the Kyoto Protocol should be fully implemented ... to minimize (the) adverse impacts and to assist OPEC Member Countries to adapt by diversifying their economies through increased investment and technology transfer.”

However, important though the UN-sponsored climate change talks are, OPEC’s commitment to environmental issues is, at the same time, more universal in nature. It embraces other targets with strong environmental benefits: developing cleaner, safer energy; tackling local pollution; improving efficiency right along the production chain; and, more generally, making economic gains wherever possible.

Above all, OPEC’s statement refers to its Member Countries being very active in alleviating energy poverty, especially through the OPEC Fund for International Development. OPEC’s Second Solemn Declaration of 2000 said that the “biggest environmental tragedy facing the globe was human poverty.” Seven years later, the Third Solemn Declaration stated that energy was essential for poverty eradication and declared the objective of the eradication of energy poverty in developing countries.

This really underlines the greatest environmental challenge of all. This is to ensure that future generations have a cleaner, healthier, safer, fairer and more prosperous world in which to live across the globe.

The climate change negotiations are already taking us a long way down this road. Accordingly, we are committed to reaching a comprehensive, balanced, ‘win-win’ outcome based on a full consensus.

*A report on COP18/CMP8 can be found on pp8–15. ■■*

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**Cover**

This month’s cover depicts the ‘Tree of action to confront climate change’, which was on show at the climate talks in Qatar (see article on COP18, pp8–15).

Photograph courtesy IISD.

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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 fair and stable prices for petroleum producers; an efficient, economic and regular supply of petroleum to consuming nations; and a fair return on capital to those investing in the industry. The Organization comprises 12 Members: Qatar joined in 1961; Libya (1962); United Arab Emirates (Abu Dhabi, 1967); Algeria (1969); Nigeria (1971); Angola (2007). Ecuador joined OPEC in 1973, suspended its Membership in 1992, and rejoined in 2007. Gabon joined in 1975 and left in 1995. Indonesia joined in 1962 and suspended its Membership on December 31, 2008.

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# Promising signs for global economy in 2013, but uncertainties remain

## December 2012

### Organization of the Petroleum Exporting Countries Monthly Oil Market Report December 2012

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Despite the considerable uncertainties affecting oil supply and demand in the international oil market, the improving economic outlook for 2013 should help support market stability.

That was the view expressed by OPEC in its *Monthly Oil Market Report (MOMR)* for December 2012, although stressing that the potential impact of non-fundamental factors on the market should not be underestimated.

It said in a feature article reviewing the oil market in 2012, and commenting on the outlook for 2013, that as a result of some optimistic developments, 2013 could see an end to the deceleration in the world economy, with growth of 3.2 per cent, compared with expansion of 3.0 per cent in 2012.

However, it pointed out that many uncertainties remained. The most important would be avoiding the 'fiscal cliff' in the United States, further decisions on austerity issues in the Euro-zone and balancing the need to reduce the fiscal debt burden, while stimulating growth in Japan.

In addition, in the emerging economies, it remained to be seen how domestic demand would be improved, given the likely continuation of low growth in their main exporting markets in the developed world.

In reviewing the past 12 months, the *MOMR* noted that the first quarter of 2012 had witnessed a significant increase in the value of the OPEC Basket.

The upward push was driven by a number of factors, including supply disruptions in the North Sea and some countries in West and East Africa, supply fears, due to geopolitical tensions, and increasing speculative activities in the crude oil futures markets.

By the end of the quarter, the Basket's value had reached over \$120/barrel.

In the second quarter, prices fell below \$100/b, as

ample supply and concerns about the gloomy economic outlook, particularly in the Euro-zone, outweighed any lingering supply fears, leading to a speculative sell-off, the report observed.

However, in the third quarter, the Basket bounced back to around the \$110/b level, where it remained in the last three months of the year.

### *Tentative recovery*

The *MOMR* said that while the world economy experienced another year of deceleration in 2012, some indicators were pointing to a tentative recovery in the second half of the year and this momentum was likely to be carried over into 2013.

It maintained that the main support came from the improving economy in the US, which had been lifted by some advances in the labour and housing markets.

“Moreover, the contraction in the Euro-zone has been less-than-expected in the third quarter of 2012. With the most recent initiatives helping to foster growth, the Euro-zone could potentially return to growth in the coming year, although this might prove challenging,” said the feature article.

However, Japan was the main economy in the OECD region that was forecast to continue decelerating significantly in 2013, although the economy could also benefit from renewed momentum in its largest trading partners.

Meanwhile, commented the *MOMR*, the major emerging economies appeared to have engineered a soft landing in 2012 and growth levels should be mostly at higher levels in the coming year.

China, and to some extent India, were particularly expected to benefit from improving world trade in 2013.

Turning to the oil market, the *MOMR* noted that the forecast for global oil demand in 2012 had seen ongoing downward revisions to stand at 800,000 b/d. Unlike in the previous year, the downward revisions in oil demand growth were not confined to the OECD, but also came from China and India.

In contrast, Japan’s shutdown of almost all its nuclear

power plants led the country to rely more heavily on other types of energy. Japanese oil use in power plants increased from 7.5 per cent of the country’s total energy consumption in the previous year to 19.7 per cent.

Similarly, India’s oil demand was boosted by the massive electricity shutdown and summertime flooding.

The *MOMR* said world oil demand growth in 2013 was expected to remain at 800,000 b/d.

“However, weakness in the global economy is causing a great deal of uncertainty for the forecast for world oil demand, which has a downward risk, especially in the first half of the year,” it observed.

A large amount of this risk could be attributed not only to the OECD, but also to China and India.

The forecast for non-OPEC oil supply growth in 2012 also experienced downward revisions to stand at 500,000 b/d.

Since the start of 2012, non-OPEC supply had suffered various setbacks, due to technical, geological, weather and geopolitical factors.


North America was seen leading the supply growth in 2012, while OECD Western Europe, Africa and the Middle East were driving the decline.

In 2013, non-OPEC production was expected to increase by 900,000 b/d, supported by growth from North America, Africa, Eurasia and Latin America, while OECD Western Europe was likely to see a continued decline.

### *OPEC natural gas liquids*

Output of OPEC natural gas liquids (NGLs) and non-conventional oils was expected to increase by 400,000 b/d and 200,000 b/d in 2012 and 2013, respectively.

“Based on these projections, the growth in total non-OPEC supply, including OPEC NGLs and non-conventional oils, of around 1.1m b/d, is expected to outpace the increase in world oil demand growth in 2013,” said the report.

“This would result in demand for OPEC crude averaging 29.7m b/d in 2013, or around 400,000 b/d less than the level estimated for 2012,” it added. 

# Fiscal uncertainties persist, but there is hope on the horizon

January 2013



With global oil demand continuing to be dampened by the overall global economic situation, hopes are high that countries currently undergoing financial change and applying fiscal stimulus, especially the United States, will be able to turn around their ailing economies.

For the past weeks, the outcome of negotiations in the US to avoid the so-called 'fiscal cliff' — a term that describes the automatic spending cuts and tax increases set to take place at the beginning of 2013 — has been a major uncertainty hanging over the nation's economy.

But according to the OPEC *Monthly Oil Market Report (MOMR)* for January, despite recent data showing an improvement in the US economy, the lack of clarity about the outcome of the talks over the past months had led to a deceleration in business spending and investments at the end of 2012, as well as a decline in consumer confidence.

A feature article in the publication said that had it been triggered, the fiscal cliff was seen as representing a potential drag of around four percentage points to US GDP. In the previous *MOMR*, the forecast growth of two per cent for the US in 2013 anticipated a drag of around 1.5 percentage points.

It observed that the current agreement — which extended tax cuts for all but the high-income bracket, continued unemployment benefits for an additional 12 months and postponed spending



cuts for another two months — was in line with the above assumption, so this year's growth forecast remained unchanged.

"If, however, no new solution is found when the postponed spending cuts come due, then an additional hit of around 0.5 percentage points to GDP will have to be accommodated," it maintained.

Looking ahead, said the *MOMR*, two further challenges closely related to the fiscal cliff negotiations remained: authorization for 2013 Federal budget spending by March 27 and the raising of the debt ceiling.

The debt ceiling would have already been breached at the end of last year had the US Treasury not taken some measures to push this off to allow time for an agreement. This was expected to provide an additional two months. As in 2011 and 2012, it was hoped that lawmakers in Congress would manage to arrive at a compromise.

But the report said that the US was not the only country faced with fiscal challenges. In Japan, the newly-elected government had announced bold fiscal and monetary stimulus actions.

Some 10.3 trillion yen in fresh fiscal stimulus spending should provide a boost to economic growth in Japan. This, in combination with massive monetary stimulus by the Bank of Japan in connection with an inflation target of two per cent, was aimed at reviving lasting growth in the economy.

"It remains to be seen if these measures will have a profound impact in an economy faced with many structural issues and the highest gross debt ratio of the major economies of about 2.5 times its GDP," commented the feature article.

It noted that the forecast for Japan's GDP had been raised from 0.6 per cent to 0.7 per cent, although developments would need to be monitored closely to see if a larger rise should be considered.

The *MOMR* contended that in the Euro-zone, the emergency facilities that were implemented in the previous year by Euro-zone leaders and the European Central Bank seemed to have led to reduced government bond yields

and had provided a base for growth in the economy for 2013, which was forecast to expand by 0.1 per cent.

However, with general elections in Italy in February and in Germany later in the year, there remained some uncertainty about the near-term future development.

### *Positive impact*

The report pointed out that the fragile recovery of the global economy in the second half of last year had already had a positive impact on the growth in exports of the emerging economies.

In December 2012, India posted a monthly increase of 11.3 per cent and China a rise of 11.0 per cent.

"This may allow room for new fiscal policy developments in these important emerging economies in the current year."

In terms of oil demand, said the report, the US was expected to remain flat in 2013 after two consecutive years of decline. US consumption could return to negative territory if the economy was to suffer a setback due to fiscal issues.

European consumption was forecast to shrink further in 2013, but at a slower rate, given the expected improvement in economic growth.

In Japan, oil consumption was projected to remain flat in 2013, due to the strong increase in oil demand last year resulting from high demand for crude for direct burning for electricity generation, following the shutdown of Japan's nuclear facilities.

"The recent stimulus plan should prevent the country's oil demand from decreasing."

The *MOMR* said that Chinese oil demand in 2013 could be higher-than-expected as exports and investments were seen picking up.

"As has been seen, a positive outcome in the countries undergoing fiscal transition could further support global economic growth this year — currently forecast at 3.2 per cent — and thus provide a stimulating factor for global oil demand," the feature article concluded. ■■

Qatar's 'Climate Gateway' opens new path to future regime

# UN Parties take next essential step in global response to climate change



Courtesy ISD

*In session ... a general view of delegates at the Qatar National Convention Centre, venue of the climate talks.*



COP18/CMP8 President, Abdullah Bin Hamad Al Attiyah (c), gavels through the decision text. He is accompanied by UNFCCC Executive Secretary, Christiana Figueres (l); and Maite Nkoana-Mashabane (r), South Africa's Foreign Minister.

***Governments the world over took the next essential step in the global response to climate change at the United Nations Climate Change Conference in Doha in December.***

Decisions taken after 13 days of often intense talks resulted in a plan of action that is being hailed as the 'Doha Climate Gateway' and which represents a personal success to the meeting's host, the State of Qatar.

The OPEC Member Country has received high praise from many quarters regarding what is seen as a breakthrough in the climate change negotiations, which appeared stalled during several past meetings.

During the COP18/CMP8 discussions in the Qatari capital, countries successfully launched a new commitment period under the Kyoto Protocol, which was adopted in 1997, but came into force in 2005 after receiving sufficient ratifications under the UN Framework Convention on Climate Change (UNFCCC).

Delegates agreed on a firm timetable to adopt a universal climate agreement by 2015 and decided on a path

to raise the necessary ambitions to respond to climate change.

The Parties also endorsed the completion of new institutions and, importantly, agreed ways and means to deliver scaled-up climate finance and technology to support mitigation and adaptation activities in developing countries.

"Doha has opened up a new gateway to bigger ambition and to greater action — the Doha Climate Gateway," commented COP18/CMP8 President, Abdullah Bin Hamad Al Attiyah, Qatar's Deputy Prime Minister and Head of the Emir's Court.

**Historic task**

"Qatar is proud to have been able to bring governments here to achieve this historic task. I thank all governments and ministers for their work to achieve this success," said Al Attiyah, who was officially handed the Presidency by the previous incumbent, Maite Nkoana-Mashabane, South Africa's Foreign Minister, at the Qatar National Convention Centre.

***"Doha has opened up a new gateway to bigger ambition and to greater action — the Doha Climate Gateway."***

— Al Attiyah





Courtesy IISD

*“Doha’s conclusion paves the way for a new course of action for designing the future climate change regime.”*

— OPEC Conference

Al Attiyah, Qatar’s former longstanding Energy and Industry Minister, stressed that governments must now move quickly “through the Doha Climate Gateway” to push forward with solutions to climate change.

His remarks were echoed by UNFCCC Executive Secretary, Christiana Figueres, who called on countries to swiftly implement what had been agreed in Doha so that the world could stay below the internationally agreed maximum 2° Celsius temperature rise.

“I congratulate the Qatar Presidency for managing a complex and challenging conference. Now, there is much work to do. Doha is another step in the right direction, but we still have a long road ahead,” she said.

“The UN climate change negotiations must now focus on the concrete ways and means to accelerate action and ambition. The world has the money and technology to stay below two degrees. After Doha, it is a matter of scale, speed, determination and sticking to the timetable,” she added.

OPEC Oil and Energy Ministers, who met in Vienna just days after the Doha talks, also paid tribute to Qatar, a Member of the Organization since 1961, for “managing a complex and challenging Meeting.”

In their Conference *communiqué*, they congratulated the government and people of Qatar on the successful

hosting of COP18/CMP8, stressing that the Meeting’s positive conclusion “paves the way for a new course of action for designing the future climate change regime.”

In this connection, the Ministers also applauded the work being done “in this important area” by climate change negotiators from around the world.

OPEC Secretary General, Abdalla Salem El-Badri, who attended the Doha Meeting, pointed out that Qatar’s hosting of the climate talks was a great example of the positive and constructive role that OPEC’s Member Countries had played in addressing the issue of climate change.

He said in his statement to the Meeting that climate change “is a threat to sustainable development and concerns all of us,” stressing that OPEC Member Countries were committed to reaching a comprehensive, balanced outcome to the negotiations based on a full consensus.

“This outcome should be ‘win-win’ in nature and recognize the diverse interests of all Parties to the Convention,” he affirmed (*see full statement on page 13*).

The Kyoto Protocol is the only existing and binding agreement under which the world’s developed countries commit to cutting greenhouse gases. The Doha plan means it has now been amended to continue running from January 1, 2013, for an agreed commitment period of eight years.

Left: Taking a break during proceedings are (l-r): HH Sheikh Sabah Al-Ahmad Al-Sabah, Emir of Kuwait; HH Sheikh Hamad Bin Khalifa Al Thani, Emir of Qatar; HH Sheikha Mozah bint Nasser Al Missned, wife of the Emir of Qatar; UN Secretary-General, Ban Ki-moon; COP18/CMP8 President, Abdullah Bin Hamad Al Attiyah; UNFCCC Executive Secretary, Christiana Figueres.



Courtesy IISD

Right: Qatar's Deputy Prime Minister, and COP18/CMP8 President, Abdullah Bin Hamad Al Attiyah, speaking at the opening session of the Climate Change Conference.

The UNFCCC has near universal membership and is the parent treaty of the Kyoto Protocol, which has been ratified by 192 of the 195 UNFCCC Parties. The ultimate objective is to stabilize greenhouse gas concentrations in the atmosphere at a level that will prevent dangerous human interference with the climate system.

According to a press release issued after the Doha Meeting, which attracted some 9,000 participants, governments agreed to speedily work toward a universal climate change agreement covering all countries from 2020, to be adopted by 2015, and to find ways to scale up efforts before 2020 beyond the existing pledges to curb emissions so that the world could stay below the agreed maximum 2°C temperature rise above the preindustrial period.

In support of this objective, it said that a significant number of meetings and workshops will be held in 2013 to prepare the new agreement and to explore further ways to raise ambition.

UN Secretary General, Ban Ki-moon, has already announced that he will convene a meeting of world leaders in 2014 to mobilize the political will to help ensure the 2015 climate deadline is met.

In Doha, governments significantly advanced the completion of new institutions to channel technology

and finance to developing nations, while developed countries reiterated their commitment to continue long-term climate finance support to developing states, with a view to mobilizing \$100 billion both for adaptation and mitigation by 2020.

### Environmental integrity

The press release also disclosed that governments looked at ways to ensure the effectiveness and environmental integrity of projects under the Kyoto Protocol's Clean Development Mechanism (CDM) that capture and store carbon emissions. OPEC is a firm advocate of the use of carbon capture and storage (CCS) technology in the energy sector's exploitation activities.

Countries are also committed to advancing their work on enabling the development and transfer of technologies that can help developing countries adapt and curb their emissions.

In further support of developing countries, governments have completed a "flexible and dynamic" web-based registry to record developing country mitigation actions that seek recognition or financial assistance.

This all points to the success of the Doha Meeting which COP18/CMP8 President Al Attiyah referred to in



DOHA 2012  
UN CLIMATE CHANGE CONFERENCE  
COP18·CMP8



DOHA 2012  
UN CLIMATE CHANGE CONFERENCE  
COP18·CMP8



UNFCCC Executive Secretary, Christiana Figueres (l), and UN Secretary-General, Ban Ki-moon, seen during a press briefing.

his opening address as “an historic event and of major importance”.

He stated that this was because the topics its important agenda addressed represented a major turning point in the climate change negotiations.

“Climate change is a challenge for all humanity, so we have to deploy serious efforts to mitigate its effects and secure a better future for us and for future generations,” he told assembled delegates.

### Genuine concern

OPEC’s stand on the climate change issue is one that it takes very seriously. The Organization has closely followed the environmental debate and numerous discussions held from day one.

The message that the Organization has consistently conveyed is one of genuine concern over the future health and welfare of the planet.

But it has also stressed the need for fairness in applying policies and measures aimed at reducing greenhouse gas emissions. It is concerned that its Members — and developing countries in general — could be discriminated against, causing potential socio-economic disruption and hardship.

It was therefore pleasing to see that, in Doha, a special forum was held for government representatives to discuss measures that could address any negative economic or social consequences on developing countries in the implementation of actions that reduce emissions.

For its part, OPEC is committed to investing in state-of-the-art applications that are helping in the environment,

presenting solutions for cleaner oil products and groundbreaking processes, such as CCS, which deal with harmful emissions.

The fact is the petroleum industry realized a long time ago that it needed to reduce its environmental footprint by adapting and searching for technological options that accommodate the continued use of fossil fuels in what is increasingly becoming a carbon-constrained world.

OPEC Secretary General, El-Badri, alluded to this in his statement to the Doha Meeting, explaining that the Organization’s Member Countries were making huge efforts to protect the environment, such as through gas-flaring reduction, supplying cleaner petroleum products, investing in CCS, developing hybrid solar-natural gas power stations and solar desalination units. They were also investing in research and development for cleaner energy.

“OPEC Member Countries are also very active in alleviating energy poverty. In this regard, the OPEC Fund for International Development (OFID) has committed \$1 billion to facilitate access to modern energy services in poor countries,” he stated.

Going forward from Doha, it will no doubt be felt that the continued active and proactive participation of OPEC Member Countries in the climate change talks will remain vital for ensuring that decisions and agreements designed under, and resulting from, the new path taken remain consistent with, and supportive of, their collective interests.

The next major UN Climate Change Conference — COP19/CMP9 — will take place in Warsaw, Poland, at the end of 2013.



# OPEC Statement to the United Nations Climate Change Conference

*The following statement was made by OPEC Secretary General, Abdalla Salem El-Badri, at the UN Climate Change Conference in Doha, Qatar, on December 7, 2012.*

OPEC is proud and honoured that the United Nations Climate Change Conference is hosted by one of its Member Countries, namely the State of Qatar.

This is a great example of the positive and constructive role that OPEC's Member Countries have played in addressing the issue of climate change.

Climate change is a threat to sustainable development and concerns all of us.

The UN Framework Convention on Climate Change (UNFCCC) is the foundation of global efforts to mitigate and adapt to climate change. Its principles and provisions should remain the cornerstone of climate change negotiations, in particular the principles of common but differentiated responsibilities and of equity, and with economic development and poverty eradication the overriding priorities of developing countries.

Important progress has been made in the Ad Hoc Working Group on Long-term Cooperative Action negotiations since their establishment at COP13 in Bali. They are now being terminated here in Qatar. However, we need to ensure that all the issues under the Bali Action Plan are completely resolved.

It is also crucial that the second commitment period of the Kyoto Protocol begins in 2013 in an effective manner, with ambitious limitation or reduction objectives for emissions. Developed countries, given their historical responsibility, should take the lead in mitigation and adaptation efforts. This includes using their extensive financial and technological capabilities to help developing countries with their nationally-appropriate mitigation actions and adaptation activities.

Important negotiations have begun under the Ad-Hoc Working Group on the Durban Platform (ADP) for Enhanced Action. These negotiations should be transparent, country-led and inclusive, and based upon the principles and provisions of the UNFCCC.

OPEC Member Countries are developing countries, whose economies are heavily dependent on petroleum export revenue. They contribute to satisfying world energy needs and, thus, to the health of the global economy.

They are doubly vulnerable: to the effects of climate change, and to the adverse impacts of response measures. In this regard, the provisions contained in the UNFCCC and the Kyoto Protocol should be fully implemented — including through the ADP process — to minimize these adverse impacts and to assist OPEC Member Countries to adapt by diversifying their economies through increased investment and technology transfer.

OPEC Member Countries are making huge efforts to protect the environment, such as through gas flaring reduction, supplying cleaner petroleum products, investing in carbon capture and storage, developing hybrid solar-natural gas power stations and solar desalination units. They also invest in research and development for cleaner energy.

OPEC Member Countries are also very active in alleviating energy poverty. In this regard, the OPEC Fund for International Development (OFID) committed \$1 billion to facilitate access to modern energy services in poor countries.

Our Member Countries are committed to reaching a comprehensive, balanced outcome to the negotiations based on a full consensus. This outcome should be 'win-win' in nature and recognize the diverse interests of all Parties to the Convention.



*Abdalla Salem El-Badri, OPEC Secretary General.*



# Addressing climate change requires political will, continuous cooperation

— Emir of Qatar



The Emir of Qatar, HH Sheikh Hamad Bin Khalifa Al-Thani, addressing delegates during the plenary session of the high-level segment of COP18/CMP8.

countries, today we are in an urgent need for international cooperation, and confirming the credibility of multilateral international action to counter climate change challenges,” he maintained.

“Therefore, the negotiating process on the climate change convention should emanate from the sense of unity of purpose and destiny and seek a consensus on the joint goals epitomizing the concept of interdependence and building on what was agreed previously.

“The responsibility for reaching a practical and effective agreement is a collective obligation that falls on the shoulders of all of us,” he stressed.

The Emir pointed out that Qatar’s hosting of the conference came out of its international responsibility and its awareness of the importance of addressing the climate change phenomena and controlling its repercussions on all human beings.

“There is no doubt that this conference represents the unfolding of a new phase in the history of humanity. The resolutions to be adopted by this conference would determine what we will bequeath to future generations,” he affirmed.

The Emir reminded those present that the conference was being held amid unstable global conditions in terms of security and economy. And these were apart from the various challenges and risks facing the international community as a result of climate change.

“The climate change phenomenon is one of the major challenges of this era. It is a real problem, existing and worsening steadily and raising several complex problems with intertwined economic, environmental and social dimensions, especially in its relation to food security and water, where the rate of desertification is increasing in

*“The responsibility for reaching a practical and effective agreement is a collective obligation that falls on the shoulders of all of us.”*

Addressing climate change “one of the major challenges of this era” requires political will and continuous regional and international cooperation.

That was the view put forward by the Emir of Qatar, HH Sheikh Hamad Bin Khalifa Al-Thani, to the high-level segment of the COP18/CMP8 United Nations Climate Change Conference in Doha in December.

“The way is still long, notwithstanding the efforts exerted at all levels during the last period, and that necessitates taking all possible measures to reach the aspired objectives and results commensurate with the people’s aspirations and catering for a future in which international solidarity, justice and prosperity for all prevail,” he told assembled delegates.

“In spite of variations in the circumstances among



many countries of the world and the agricultural sector is deteriorating,” he stated.

The Emir said it was no exaggeration to say that climate change had its hazardous impacts on all aspects of life, both in developed and developing countries, while the latter bore the brunt of the damage caused by those repercussions.

“The negative effects of climate change are extremely grave on the tracks of sustainable development aspired by all people and it would not be acceptable to decide solutions for it at the expense of development,” he professed.

“Therefore, no country would be able to find a haven in the past theories of isolationism because the causes of environmental damage have no borders and the failure to address them collectively and seriously will expose all people to danger,” he added.

## Comprehensive perspective

The Emir told the Meeting that it was against this background that they were required to deal with the phenomenon from a comprehensive perspective that took into account all its causes.

“We have to be far-sighted in addressing this phenomenon at present and to reflect on how to face its challenges in the future without prejudice to the right of all people to realizing their sustainable development,” he contended.

In this connection, he called upon the developed countries to fulfill their international obligations concerning extending assistance to developing countries, as per the UN Convention.

“I also call for reaching the right equilibrium between the needs of countries and communities for energy on the one hand and the requirements to reduce greenhouse gas emissions on the other. Here technology could be utilized to achieve this, and we are ready in the State of Qatar to contribute to this field, because we are partners on this planet,” he said.

The Emir pointed out that Qatar was among the countries that were susceptible to the negative impacts of climate change and needed to work on reducing greenhouse gas emissions.

Hence, it had paid great attention to environmental issues and made them one of the mainstays of its ‘National Vision 2030’ plan, which stated that environmental development and economic development were two fundamental goals, and it would not be possible to sacrifice one for the sake of the other.

To achieve the long-term environmental goal, continued the Emir, the ‘Qatar National Strategy 2011–16’ included a set of measurable goals that were defined within a medium-term framework.

“These specific goals are related to the sustainable use of water, improving air quality, enhancing efficient use of gas and energy, limiting the use of all types of waste materials and recycling them, safeguarding biodiversity, increasing green areas, along with the planned urban expansion, promoting environmental awareness among the population, and enhancing knowledge and deepening national commitment towards environmental issues,” he stated.

The Emir explained that these efforts were not confined to the ministries and governmental organs, but transcended them to include major domestic companies, whether governmental or mixed, as they all abided by the general goals envisaged in ‘Qatar’s National Vision’, which included the environmental objectives.

These companies, he informed, had various projects either running or under execution, schemes that aimed at minimizing gas-flaring, carbon dioxide (CO<sub>2</sub>) gathering, storage and reinjection, as well as waste management, in addition to rehabilitating combustion turbines in factories built before 2005 by introducing new technologies to reduce nitrogen oxide emissions that harmed the environment.

For example, the Al Shaheen project was considered one of the major exemplary clean development schemes that aimed at reducing CO<sub>2</sub> emissions.

Also, said the Emir, the exploitation of renewable energy had been initiated through the construction of solar industry infrastructure, namely a factory to produce pure silicon, as well as the adoption of green building projects that used solar energy, such as the Qatar National Convention Centre, the venue of the Climate Meeting.

There was also an initiative by the Qatar General Electricity and Water Corporation (Kahramaa) — under the umbrella of the Ministry of Energy and Industry — that aimed at exploiting solar energy to cater for two per cent of Qatar’s electricity needs by 2020.

“We are open and welcome any assistance that could help us find the best ways to cut greenhouse gas emissions,” he stressed.

The Emir told participants he was confident they would be working hard in the few remaining days of the Meeting to find practical and flexible solutions and appropriate decisions that would “satisfy our aspirations towards a better future for us and for future generations.”

*“We have to be far-sighted in addressing this phenomenon at present and to reflect on how to face its challenges in the future without prejudice to the right of all people to realizing their sustainable development.”*



## GECF ministers stress ‘green’ credentials of natural gas



*Eng Rostam Ghasemi, Minister of Petroleum of Iran, was elected President of the GECF Ministerial talks for 2013.*

Ministers at the Gas Exporting Countries’ Forum (GECF) have stressed the importance of natural gas to the world as a ‘green’ fuel.

At the 14<sup>th</sup> Ministerial Meeting of the GECF, held in Malambo, Equatorial Guinea, towards the end of November, they also pointed to the abundance of the resource, stating that it was a “safe, clean, reliable and efficient energy carrier”.

A *communiqué* issued after the one-day meeting, attended by Ministers and Heads of Delegation from the Forum’s 12 signatories, acknowledged Member Countries’ efforts at promoting a stable supply of natural gas to ensure security of sustainable demand.

Members were also praised for bringing about the necessary conditions for boosting infrastructural development.

During their discussions, which covered current developments in the global natural gas market, as well as progress made by the Forum, the

Ministers again highlighted the importance of adopting a non-discriminatory and predictable legal framework, and energy, trade, fiscal and environmental policies to enhance the development of the gas sector.

“The Ministers discussed the changing nature of gas market dynamics and the advent of new producers and consumers, technologies, as well as unconventional and renewable energy sources which are constantly changing the energy landscape,” the *communiqué* said.

The Forum reiterated Member Countries’ support of international efforts aimed at addressing global environmental challenges and also encouraged cooperation, coordination and exchange of views with all industry stakeholders to achieve the objectives of the GECF.

The Ministers agreed to hold the second GECF Summit of Heads of State and Government in the Russian Federation on a date to be announced in 2013 and to convene the next ordinary Ministerial Meeting in the Islamic Republic of Iran in November this year. The first GECF Summit was held in the Qatari capital, Doha, in November, 2011.

Hosted by Gabriel M Obiang Lima, Minister of Mines, Industry and Energy of Equatorial Guinea, the Malambo meeting was also attended by GECF Secretary General, Leonid Bokhanovskiy, and Ilya Galkin, Chairman of the Executive Board.

Eng Rostam Ghasemi, Minister of Petroleum of Iran, was appointed President of the Ministerial Meeting for 2013, while Mohammed Bin Saleh Al-Sada, Minister of Energy and Industry of Qatar, was elected Alternate President.

The Ministers also accepted the application of Iraq as an official GECF observer. Iraqi Vice Minister of Energy, Motasan Akram Hassan, said after the Meeting that his country planned to start exporting natural gas as early as 2018.

## Aims and objectives

The GECF is an intergovernmental organization of the world's leading natural gas producers. Its objectives are to promote a stable and transparent energy market, provide a platform to promote, study and exchange views, and foster cooperation on mutual interests through dialogue among producers, producers and consumers and between governments and energy-related industries.

The Forum's 12 Members comprise six OPEC Countries — Algeria, Iran, Libya, Nigeria, Qatar and Venezuela — as well as Bolivia, Egypt, Equatorial Guinea, Oman, Russia and Trinidad and Tobago. The Netherlands attended the latest talks as an observer. Kazakhstan and Norway also have observer status.

And the United Arab Emirates (UAE) is set to become the seventh OPEC Member of the Forum. It has already submitted documents to this effect to the GECF Headquarters in Doha, following a meeting between Juma Rashed Al Dhaheri, Ambassador of the UAE to Qatar, and Forum Secretary General, Bokhanovskiy.

The UAE has always had a close working relationship with the GECF and has shared its missions and objectives since its inception.

The GECF was established in Tehran, Iran, in 2001. The 7<sup>th</sup> Ministerial Meeting, held in Moscow in December

2008, adopted the Forum's charter. At the same time, it was decided to set up an Executive Office and Secretariat in Qatar.

In between ministerial meetings, the work of the GECF is organized through its Secretariat in Doha. The Chairman of the GECF is former Qatari Energy and Industry Minister, Abdullah Bin Hamad Al Attiyah, while the Vice Chairman is Dr Chakib Khelil, previously Minister of Energy and Mines of Algeria.

Meanwhile, the GECF has celebrated its 4<sup>th</sup> Anniversary as a fully-fledged international organization at the Diplomatic Club in Doha.

Marking the occasion, the GECF Secretary General reiterated the relevance of the Forum as a platform for cooperation and exchange of ideas for a stable and transparent natural gas market.

He pointed out that countries and organizations had continued to recognize the Forum's role as a "trusted authority in gas".

Bokhanovskiy highlighted as significant the new membership of the UAE to the Forum and Iraq joining as an observer.

He said the growth of the Forum to 13 Member Countries and four observers was a sign of the international recognition and confidence by key players in the gas sector.

"The GECF is progressively taking a role as an active intergovernmental organization in the global energy landscape. We have developed our internal processes and IT infrastructure, research and human capital capacity, as well as our legal and regulatory framework to effectively deliver on our missions and objectives," he stated at the ceremony.

"We have grown from a new participant in the natural gas market to an active international intergovernmental organization that continues to contribute to global energy debates and research."



## Forum positioning itself as “trusted authority in gas”

— GECF Secretary General



GECF Secretary General, Leonid Bokhanovskiy.

The Gas Exporting Countries' Forum (GECF) has positioned itself as a key player in the global gas market and is taking progressive steps towards establishing itself as the “trusted authority in gas”, according to its Secretary General, Leonid Bokhanovskiy.

Speaking at the 14<sup>th</sup> Ministerial Meeting of the GECF in Malabo, Equatorial Guinea, he told delegates that the Forum would continue to be driven by its apt slogan of a ‘common goal, common vision’.

He stated that for the GECF, the year 2012 had been in a word “progressive”.

“It has been a very important year for the GECF. We have been actively involved in studies and research

activities that are relevant to the Forum and the global gas sector,” said Bokhanovskiy.

He reiterated that the mandate of the GECF as an organization with the leading gas-exporting and producing countries was to establish leadership in the sector.

“In furtherance to this, we continue to stimulate conversations and debates through research, cooperation and investment in the sector,” he said.

“This year we have tagged progressive, not because of what we have achieved as a Forum, but because of our collective efforts to continuously renew our commitment year-after-year in this assembly of ministers and because of the potential this distinguished Forum presents to the international community.”

Bokhanovskiy stated that 2012 had represented an opportunity for the Forum to strengthen its internal processes and to effectively engage with key and relevant local and international audiences in the global gas market.

“Significant milestones have been achieved by the GECF. The Secretariat participated in about 15 events related to natural gas and energy internationally,” he affirmed.

Bokhanovskiy said the Forum had contributed to current debates in the gas sector through the production of two relevant studies on key topical subjects in the industry — the ‘Economics of shale gas’ and the ‘Cost of gas transportation’.

“We held strategic high-level consultations with more than 60 high-ranking officers, including heads of state, ministers, chairmen and CEOs of international and national oil companies, secretary generals or heads of

international organizations, vice ministers, managers, as well as ambassadors,” he revealed.

He said the Forum also continued to make significant progress in the development of its long-term strategy, public relations and communications strategy and the development of the GECF Website. It had successfully published 24 regular reports on the gas market.

“The year 2012 for the GECF has been a year of innovative thinking — we promoted and legislated on proposals like a gas research institute and the establishment of financial institutions within the GECF that will strengthen and further the position of the Forum,” commented Bokhanovskiy.

He disclosed that the Forum had completed the corresponding phase of the GECF Global Gas Model, while the key elements of its legal framework had also been revised for the work ahead. The staffing level of the Forum had reached more than 90 per cent of that targeted and the full complement was imminent.

“The year has been indeed unique. Going forward we intend to intensify our efforts and will continue to count on the distinguished ministers and Executive Board

members for their steadfast support for our activities,” stated Bokhanovskiy, who has been Secretary General of the Forum since 2009.

In welcoming remarks to the Meeting, he said it was the fifth time the GECF Ministers were meeting in Africa, which was a symbol of the “existing and potential opportunities the region presents to the Forum and indeed the world.”

He added: “The GECF is proud to be here and we look forward to facilitating inbound and outbound cooperation among member countries in the region and Forum-wide.

“As we continue to seek global cooperation among member countries, we must strengthen our internal processes to enable us to effectively facilitate such cooperation and collaborations as declared by the ministers in the Doha Declaration and the 1<sup>st</sup> Gas Summit,” he told the Meeting.

Bokhanovskiy stressed that the Ministerial Meeting would set the tone for the Forum’s activities as a vehicle for cooperation in 2013 among member countries.

“We are excited about this and we are ready for the task ahead,” he stated.

“The path to becoming a trusted authority in gas is the destination we have chosen for 2013 and beyond, not because it is possible, but because as a Forum with your support, we can do this,” he added.

“We must continue to invest in our cooperation and exchange of ideas to maintain our relevance in the sector,” he maintained. ❀

## GECF officials visit OPEC Secretariat



*Abdullah Al-Shameri (second left), Head of the Office of the OPEC Secretary General, with Members of the GECF delegation, who visited the OPEC Secretariat (l-r): Antolio Bastidas, Statistical Assistant; Mohammed Al Riyami, Head, Energy and Gas Market Analysis Department; Radia Sedaoui, Head, Statistics and Gas Modelling Department; and Ghalib Al Amri, Natural Gas Market Analyst, Energy and Gas Markets Analysis Department.*

Representatives of the Gas Exporting Countries’ Forum (GECF) visited OPEC’s Headquarters in Vienna in November 2012, just one week after their Ministerial Meeting in Equatorial Guinea.

In a busy two days of fact-finding, the officials were given presentations on all the different areas of work carried out at OPEC’s Secretariat.

These included the activities of the Research Division, comprising the Energy Studies and Petroleum Studies Departments, as well as Data Services. The visitors were also given a presentation on the work of the Secretariat’s Environmental Matters Unit.

### Briefings

Other briefings covered the work of the Office of the Secretary General and Legal Office, the Administration and Information Technology Services Department, the Finance and Human Resources Department and the Public Relations and Information Department. ❀

OPEC Research Director addresses Refinery Technology Conference

# Global refining sector facing challenging few years

The next few years are likely to be a challenging and turbulent time for the global refining industry with continued low plant utilization rates and weak margins, according to the Director of OPEC's Research Division.

Dr Hasan M Qabazard told the European Refinery Technology Conference's 17<sup>th</sup> Annual Meeting in Vienna in November that it would also be a period of increased competition, especially since the surpluses evident in the OECD region were not deterring projects in the non-OECD region.

"This meeting is taking place at a very challenging time for the refining industry, with major structural changes underway across the world in both the product mix and the regional balance," he stated.

"Moreover, a review of existing projects indicates that conversion and hydrotreating capacity additions grow faster than crude distillation. Therefore, it is potentially misleading to infer refining margins purely as a function of distillation capacity utilization.

"Overall, higher utilization rates — probably above 85 per cent — are needed to improve margins to healthy and sustainable levels," he said in a keynote address to the three-day industry event.

Looking at the refining outlook, Qabazard said that for the next five years — the medium term — developments in the refining sector would be driven primarily by the quantity and type of capacity additions and the extent to which the additions would be offset by planned closures.

An assessment of existing refining projects showed that around 7.2 million barrels/day of new crude distillation capacity would be added to the global refining system in the period up to 2016.

Qabazard said that 40 per cent of the additional

capacity was expected to materialize in Asia, mainly in China and India. The Middle East, Latin America and Russia also featured strongly with capacity additions.

He noted that part of the new refining capacity would be offset by refinery closures. Recent refinery closures had reached 4m b/d globally and, taking into account some recent announcements, were heading towards 5m b/d by 2014 and potentially higher since at least 15 refineries were known to be on sale.

Qabazard observed that Europe had experienced most closures, at around 1.7m b/d, but refineries in North America and Japan were also being hit hard.

"In addition, we are no longer talking about just small and simple plants. For example, the Hovensa refinery on the Virgin Islands had a capacity of 500,000 b/d. And, in terms of complexity, the Coryton refinery in the United Kingdom had a Nelson complexity index of 12, which means it is a fairly complex refinery, and yet it is already closed," he affirmed.

## Utilization rate

"If we balance out the new projects with closures and set this against the required crude runs from our reference case, we see that the situation for the refining sector, in terms of the average utilization rate, will not change significantly over the medium term."

Qabazard maintained that the industry could experience some improvements in 2013. However, new capacity coming onstream in the years after this, mainly in the Middle East and Asia, was likely to lead to the capacity surplus being extended by another 1m b/d.

"This is well illustrated when we look at spare distillation capacity. Post-recession developments took the

*“This meeting is taking place at a very challenging time for the refining industry, with major structural changes underway across the world in both the product mix and the regional balance.”*

global refining system’s spare capacity above 6m b/d in 2009. In 2010, the situation was somewhat reversed, as demand increased. In 2011 and 2012, refinery closures, mainly in the OECD region, reduced spare capacity to below 4m b/d.

“However, new projects will bring this back above 5m b/d towards the end of the medium-term horizon, unless more refineries are closed. And, without closures, the level of spare capacity would move towards 10m b/d by 2016. This means that there is scope for more capacity rationalization,” he said.

Qabazard explained that the closure of around 4m b/d committed so far had removed, primarily, surplus capacity that was often idle anyway and thus had little impact on margins. Current estimates implied that additional closures of 3–6m b/d were needed to restore long-term refining viability.

Turning to the long-term outlook for the sector, the OPEC Research Division Director told delegates that it was important to emphasize the rising share (and



*Dr Hasan M Qabazard, Director of OPEC’s Research Division.*

*“Nowadays, essentially all major new refinery projects comprise complex facilities with high levels of upgrading, desulphurization and other secondary process units.”*

volume) of non-crude liquid supply that would satisfy around 60 per cent of the increase in product demand to 2035.

This was because most of these streams bypassed the refining system, thus reducing the scale of future expansions needed there.

On the demand side, said Qabazard, the importance of the transportation sector was reflected in the fact that out of 20m b/d of additional demand by 2035, around 60 per cent was for middle distillates and another 38 per cent for gasoline and naphtha.

He continued that besides the growth in road transport, demand for diesel also received support from marine bunkers and jet kerosene from the expanding aviation

sector, while the growing petrochemical industry provided momentum for naphtha demand.

For the remaining products, a decline in residual fuel oil was broadly offset by an increase in ethane, LPG and the group of ‘other products’.

“To meet this future demand for refined products, our model results project that cumulative total additions will reach

15m b/d by 2035. However, almost half these additions will already be onstream by 2016. Thus the industry is set for a surge of additions in the next five years, after which a much slower rate will be needed up to 2035,” contended Qabazard.

He reminded delegates that they should not forget the growing importance of secondary process units, which played a vital role in producing advanced finished products.

“Nowadays, essentially all major new refinery projects comprise complex facilities with high levels of upgrading, desulphurization and other secondary process units. This trend is set to continue, since our projections emphasize a sustained need for incremental conversion capacity.”

In particular, said Qabazard, hydro-cracking would account for almost 70 per cent of the required total conversion capacity. In contrast, much fewer additional coking and FCC units would be needed, since there was already over-capacity in these areas.

Furthermore, he noted, the drive towards continued tighter fuel sulphur standards would lead to desulphurization accounting for the largest volume of capacity additions in the period up to 2035.

“These additions will be one-and-a-half times those of distillation, or in terms of volume, there will be 22m b/d of these units.”

Qabazard said that, clearly, the refining sector was facing some fundamental challenges in the coming decades. The surplus of distillation capacity that existed in the industry did not necessarily mean a surplus for all products.

“In fact, the industry is facing the challenge of a distillate deficit and a gasoline surplus. Therefore, the proportions of distillates versus gasoline and naphtha in the output of a refinery will be key factors affecting margins and profit.

“In this respect, refinery process technologies, some of them nearing the commercial stage, could markedly change refinery yields,” he said.

Regarding the global oil landscape, Qabazard said the present situation in the world economy, with the outlook across the OECD remaining generally weak and fragile, with even the emerging economies losing steam, all reflected on the prospects for world oil demand.

Demand growth for 2012 had been revised down to 800,000 b/d from an initial forecast of 1.3m b/d a year earlier and the outlook for 2013 was not encouraging, with demand put at a similar level of 800,000 b/d.

Against this backdrop of uncertainty, said Qabazard, the international oil market remained well supplied. Despite disruptions in several countries, non-OPEC supply had been robust in 2012, growing by 500,000 b/d over 2011, a figure that was expected to almost double to 900,000 b/d in 2013.

Rapid tight oil expansion in North America, particularly in the United States, had contributed 600,000 b/d to 2012 supply, along with overall biofuel growth of 170,000 b/d, which had largely offset the decline in mature production areas in the North Sea.

OPEC, in continuing with its policies to address market imbalances and supply disruptions, produced in excess of 31m b/d in 2012, more than 1.5m b/d higher than a year earlier, and a rising level of OPEC natural gas liquids output was also making an important contribution to global supply.

With these ample supplies, OECD commercial oil stocks stood 6 mb above the five-year average, while crude



stocks remained in surplus by 32 mb. Forward demand cover was comfortably above the five-year average.

However, said Qabazard, crude oil prices continued to suffer from volatility with opposite forces having been dominant at different times. Notably, geopolitical events, amplified by speculation, had driven prices up, while concern about global economic developments, especially in the Euro-zone, had driven them down.

“This volatility remains a matter of much concern to us all and is happening in spite of the market remaining well supplied with oil. Also, as we have known for some years now, there are important issues to address here with regard to speculation and the influence of the financial sector on the oil market,” he affirmed.

Looking at the longer term, and using results from the recently released OPEC *World Oil Outlook*, Qabazard said the Organization’s reference case scenario showed energy demand rising by 54 per cent between 2010–35.

To address this, fossil fuels would account for over 80 per cent of the energy mix throughout this time. However, oil’s market share would fall from 37 to 27 per cent in 2035, while gas use would rise the fastest. Renewables would grow quickly too, but from a low base, with their share climbing from seven to 12 per cent.

“But a big uncertain factor here is the shale gas revolution and the eventual course of this may have a significant impact on future projections,” he pointed out.

## Long-term demand

Concerning oil, Qabazard said OPEC saw long-term demand growing by over 20m b/d by 2035, compared with 2010. Significantly, with OECD demand peaking, 87 per cent of the overall increase would come from developing countries in Asia.

“Indeed, by 2015, non-OECD oil demand will exceed that of the OECD for the first time,” he remarked.

On the supply side, he continued, non-OPEC supply was projected to rise by more than 10m b/d to nearly 63m b/d during the 25-year period. With the supply of OPEC NGLs and gas-to-liquids between them doubling to 10m b/d at the same time, the requirement for OPEC crude would reach 35m b/d in 2035.

“Again, there are some significant uncertain factors here which could affect future supply projections, involving, in particular, the future profiles for shale oil and bio-fuel production,” observed Qabazard.

He said that crude oil trade between major regions was projected to remain stable in the medium term and to

*“... by 2015,  
non-OECD oil  
demand will  
exceed that of  
the OECD for the  
first time.”*




grow in the long term. The Middle East would become the key crude-exporting region in the long term, with almost 20m b/d of crude exports by 2035, compared with 17m b/d in 2011.

“Another observation is an eastward shift in the long-term crude trade pattern. Due to declining demand, combined with growing supply in the US and Canada, net crude oil imports to the North American region in the reference case are set to drop below 2m b/d by 2035 from more than 7m b/d in 2011.

“This leads to a shift in global crude trade, which, to a great extent, will be determined by the type of additional barrels that are expected to be produced in North America,” he said.

Increased crude production would come in the form of light crude oil grades. This would be supplemented by a rise in ethanol supply, which would gradually displace part of the current imports from Africa and the North Sea. And growth in heavy crude oil supply in Canada would also reduce US imports from Latin America sometime after 2020.

“Model simulations suggest that these displaced barrels from Africa and Latin America will progressively change the direction of trade and start moving it eastward, attracted by growing demand in Asia,” maintained Qabazard.

He said that all these developments once again underlined the need for a collective approach from the industry at large to addressing such challenges in the true spirit of dialogue and cooperation. 

# Saudi Arabia to shift local energy source to natural gas

By Nouf Al-Abbas



*Khalid Al-Falih, Saudi Aramco President and Chief Executive Officer.*

In order to free up more crude oil for export, Saudi Arabia is aiming to replace its current local energy source, crude oil, with natural gas.

The problem is that the Kingdom has not yet discovered natural gas in sufficient quantities to meet domestic demand. It needs to produce the environmentally friendly fuel in quantities large enough to replace oil as the fuel for its planned electricity plants and guarantee cheap feedstock for new petrochemical installations.

With that said, Saudi Aramco, the national oil company, is one of the largest oil and gas firms in the world and well placed to implement the switch.

In order to meet this national goal, the company has planned activities in place pertaining to exploration, production, refining, distribution, shipping and marketing.

So far, as the figures prove, the Kingdom is making great progress in the production of natural gas, which

averaged 9.4 billion cubic feet per day in 2010 and has risen noticeably to 9.9bn cu ft per day in 2011. Saudi Aramco has plans to drill seven gas exploration wells in Tabuk Province.

## Exploration work

“The province has given indications that it is full of hydrocarbon wealth,” Khalid Al-Falih, Saudi Aramco President and Chief Executive Officer, said, according to the Saudi Press Agency (SPA). He did not, however, give a timeline for the exploration work.

Among the new exploration plants is the Midyan field in Tabuk; it was discovered in the 1980s, but will start gas production in 2013. This field has significant reserves and the gas will be used for power generation.

Another plant is the Wasit gas plant, which will be

one of the largest gas plants Saudi Aramco has ever built when it is completed in 2014.

Al-Falih has listed four “sweeping new realities” that he says call for a more realistic approach to energy challenges and opportunities.

These comprise an increasing abundance of oil and gas supplies, due to significant technological advances; the faltering pace of renewables and other alternatives; the persistence of the global economic turbulence of the last few years; and the changing nature of the environmental debate around energy.

In support of its plans, Saudi Aramco has developed a new technology — the Master Gas System — which helps in minimizing the amount of gas wasted as a result of flaring during oil production.

This new technology captures real time data and provides accurate and fast interpretations and predictions of the gas’s condition and status.

This helps planners, engineers and management officials to make more informed decisions.

The System’s reliability is measured by the ‘Survival Time’ parameter, which is a representation of the excess and pressurized gas inventory inside the system that is maintained as a buffer against unplanned events.

But maintaining the excess comes at a high cost and that is where the Master Gas System plays a critical role. Besides reducing the cost of power and ensuring optimum operation, the system also gives engineers and planners a convenient tool to run a — ‘what-if’ analysis.

As a result, Saudi Aramco’s Oil Supply Planning and Scheduling Department can then coordinate Master Gas System activities that respond to the impacts of the scenarios.

In other words, the System’s ‘what-if’ analysis allows more preparation for combating hypothetical scenarios adequately to provide better management in the event that they should become a reality.

The benefits of shifting the local energy source to natural gas are not only economically sound for Saudi Arabia, but also include various environmental returns.

Substituting oil with natural gas to produce local energy minimizes pollution because carbon dioxide and other emissions from natural gas are significantly lower than those from coal or fuel oil.

Natural gas, in emitting fewer harmful chemicals into the atmosphere, can help mitigate some of the current environmental issues: greenhouse gas emissions, smog air quality, industrial and electric generation emissions, and pollution from the transportation sector.

Saudi Arabia is already ranked fifth in the world for its reserves of natural gas, but it is only in ninth place in terms of production of the commodity.

## Natural gas production

The Kingdom accounts for about three per cent of world natural gas production, but there is clearly room for massive growth. And Saudi Arabia could become a net importer of oil if the currently trending use of oil for electricity production in the Kingdom is discontinued.

Saudi authorities now feel they should no longer allow their main source of export revenue (80 per cent) — crude oil — to be consumed by domestic electricity production, which is why the country is accelerating its efforts to switch its electricity fuel from valuable oil to the more economically and environmentally friendly natural gas.

The International Energy Agency (IEA) predicts that if Saudi Arabia ramps up its production of natural gas, it would add to the much spoken of ‘Golden Age of Gas’.



Power plant number 10 at the Saudi Electricity Company’s Central Operation Area, south of Riyadh.

# Algeria looking to boost LNG production capacity by 2014



Algerian Energy and Mines Minister, Dr Youcef Yousfi.

Below: A worker is seen at the Zarzaitine gas field in In Amenas, 1,600 km south-east of Algiers.



Reuters

Algeria is looking to hike its liquefied natural gas (LNG) output capacity by up to 10 billion tons a year in 2014, with the addition of two new production trains.

## LNG capacity

According to a report carried by the local state-run *Algerie Presse Service (APS)*, the country's LNG capacity is expected to reach 60m t a year in 2014.

It said the two new trains — at Skikda and Arzew on the Mediterranean coast — would be in production during 2013. One of the plants was expected to be online by the end of February.

The move is in line with comments made by Zoubir Souilem, Head of Sonatrach's Gas Exports Division, when towards the end of last year he announced that the state-run energy company would add up to 10m t a year of LNG capacity with the opening of the two plants.

He said at that time that the 4.5m t a year Skikda LNG plant was due to be onstream in December of last year, with the 5.5m t a year Arzew terminal expected to be operative by either the third or fourth quarter of 2013.

Algerian Energy and Mines Minister, Dr Youcef Yousfi, was quoted as saying at a conference in Kuala Lumpur last year that the country was aiming to reach an LNG production capacity of 40 billion cubic metres (60m t) "in two or three years' time when we finish construction."

## Reggane Nord gas project


Meanwhile, Spain's Repsol is planning to start construction on its \$3bn Reggane Nord gas project in south-west Algeria by 2014, with first gas due to be onstream in August 2016.

The project covers six gas fields — Azrafil Southeast, Kahlouche, South Kahlouche, Tiouliline, Sali and Reggane.

When in operation, the scheme is expected to produce 8m cu m per day of natural gas over a 12-year period.

Repsol is operator of the scheme with a 29.25 per cent interest. It is developing the field with Sonatrach (40 per cent), Germany's RWE Dea (19.5 per cent) and Italy's Edison (11.25 per cent).

Genesis Oil and Gas Consultants of the United Kingdom have been selected to carry out the front-end engineering and design study for the project.

In a further development, Sonatrach was expected to issue tenders for two gas compression stations for its GR5 pipeline project. The stations are planned to be built at Krechba and at the Hassi R'Mel gas fields. They will have combined capacity of 27bn cu m/year. 

# Libya aiming to hike oil output by 100,000 b/d in first quarter

Libya is aiming to boost its crude oil production by 100,000 barrels/day early in 2013, according to the country's Oil and Gas Minister, Dr Abel Bari Ali Al-Arousi.

Speaking to reporters in December, he said the country's oil production stood at 1.5 million b/d, but he was hopeful the extra output would be in place by the end of the first quarter of 2013. By drilling more wells, a production figure of 1.7m b/d was targeted for the end of 2013.

## Increase output

The Minister stressed that Libya's overall aim short-term was to increase crude oil output to 2m b/d by 2015.

He was also quoted as saying that Libya could soon proceed with a new bidding round for exploration, as well as securing new production agreements, but the priority for the present was to continue maintaining existing production levels.

"First of all, we have to maintain the current production rate — that is the priority, as well as having all the international service companies back in Libya and ensuring that all security measures have been taken," he stated.

Al-Arousi said that at the request of some of its potential foreign partners, the Oil and Gas Ministry would review some of the current terms covering existing exploration and production contracts.

"We are renegotiating some contracts. We are reviewing the contracts with different companies because we received complaints from some companies and ... we are going to review them for the mutual interests of the Libyan and other companies," he was quoted as saying.

"We do not want our partners to lose in this industry, so we want to give them a fair opportunity," he added.

The Minister disclosed that at the same time, his Ministry was looking to reorganize the National Oil Corporation (NOC), by dividing it into an exploration and production operation, to be based in the capital, Tripoli,



*Dr Abdel Bari Ali Al-Arousi, Libya's Minister of Oil and Gas.*

and a refining and petrochemicals division to be sited in Benghazi.

He added that this proposal was awaiting the approval of the prime minister and the National Council.

## Security issue

Security is still an important issue in Libya, especially in attracting foreign companies back to the country.

"We think the security situation in Libya is improving," Al-Arousi said. "We are inviting foreign companies to come here to participate in providing services to the oil industry. We need them." ❁

# Turkey proposing to build LNG terminal with Qatar



*Turkish Energy Minister, Taner Yildiz.*

Turkey is looking to boost its standing as an energy supplier to Europe by building a liquefied natural gas (LNG) terminal with OPEC Member Qatar on its Aegean coast to help meet rising domestic demand.

Turkish Energy Minister, Taner Yildiz, was quoted as saying during a trip to Algeria that the proposed terminal, to be located on the Gulf of Saros, would have a yearly capacity of up to six billion cubic metres of gas.

As well as meeting its own needs, excess supplies could be shipped to other countries, including Greece and Bulgaria.

“We think it would be appropriate to build an LNG terminal on the Gulf of Saros to meet the needs of Turkey and the region,” he was quoted as telling reporters in Algiers. The Minister was also due to visit Libya and Qatar.

“This would help relieve the Bosphorus Straits traffic and Bulgaria and Greece could benefit from the facility as well,” he added.

Yildiz said Qatar would carry out the feasibility work for the planned scheme, as well as evaluate the project.

He pointed out that Turkey currently had no long-term LNG contracts with Qatar, but was in the process of opening negotiations.

Qatar, the world’s largest LNG exporter, mainly ships its gas

supplies to Asian markets, but is always looking to secure new customers.

Over the years, the country has achieved a major expansion of its LNG industry. The advances made have encompassed important innovations across the entire value chain of natural gas.

## LNG business model

Qatar has used innovative technology to scale up its LNG trains and has designed the world’s largest LNG carriers. It has also devised a completely new LNG business model, which has made Qatari LNG a truly global business.

Today, the country can sell LNG in every region of the world and can adjust its sales mix to match market requirements. Technology and business innovation have also allowed Qatar to build a unique gas-to-liquids industry with mega GTL projects.

Turkey’s domestic gas demand is set to increase markedly. According to latest figures, the country’s gas demand is expected to soar to 220 million cu m during the winter months of 2013, compared with around 125m cu m in 2012.

At the moment, Turkey takes its natural gas supplies from Russia, Iran and Azerbaijan, while its LNG deliveries come from Algeria and Nigeria under long-term contracts.

Yildiz disclosed that Turkey had agreed to extend its contract to buy an annual 4bn cu m of LNG from Algeria over a ten-year period from October 2014, when an existing contract was due to expire.

“We will also discuss the pricing mechanism. Turkey has a growing demand for LNG. We need long-term contracts for this,” he was quoted as saying.

Due to its growing domestic demand, Yildiz noted that the country would be seeking spot cargoes from both Algeria and Qatar to cover its needs in the winter months.

During his visit to Algiers, the minister said discussions over oil purchases from Algeria were also on the agenda, adding that Turkey’s state-owned energy company, TPAO, planned to participate in the North African country’s upcoming oil exploration round.



# UK North Sea oil production forecast to sink to 36-year low

Crude oil output from the United Kingdom is forecast to drop to its lowest level in 36 years in 2013, due to a lack of investment and ageing infrastructure.

According to OPEC's *Monthly Oil Market Report (MOMR)* for January, the country's oil output is forecast to average just 910,000 barrels/day in 2013, a 50,000 b/d decrease from 2012 and the lowest level since 1977. The publication said that indications of the slump in UK output were seen in 2012 when the *MOMR* reported that Britain's crude oil production in October last year was some 30 per cent lower than in the same month the previous year.

It noted that the restart of the UK's Elgin-Franklin output had been delayed from the end of 2012 to 2013, and this was seen as supporting output. However, it added that the expected overall decline in 2013 was driven by natural declines and limited new developments.

"The projected production drop in 2013 is significantly lower than the decline estimated in 2012, since supply is seen to experience fewer unplanned shutdowns in 2013, compared with 2012, in addition to a smaller impact from maintenance and mature declines," the *MOMR* commented. However, it said that developments such as Huntington, Kinnoull and Islay, were expected to support output in 2013.

On a quarterly basis, UK oil output in 2013 is expected to average 940,000 b/d, 880,000 b/d, 870,000 b/d and 930,000 b/d, respectively.

According to the UK Department of Energy and Climate Change, the country's North Sea oil production is expected to decline at an average rate of five per cent annually. It said that by 2020, the UK expected its net imports of oil and products to reach some 628,000 b/d, up from about 442,000 b/d in 2011. Net oil imports would then continue to grow, rising to more than 1m b/d, or 67 per cent of demand, in 2030, according to the Department's data.

The government also expects the UK to become a net importer of 53 per cent of its gas demand by 2020, a figure that is expected to rise to 76 per cent in 2030.

New investment in UK oil fields has been sparse in recent years, due to a lack of clarity around the tax treatment of decommissioning liabilities for ageing North Sea assets.



Drill and production platform in the Norwegian North Sea.

The British government is moving towards resolving the issue, triggering an increase in investment activity, but energy analysts say it will take some time for it all to filter through.

Meanwhile, the other major North Sea oil producer, Norway, is also expected to see lower production in 2013.

The *MOMR* predicts that Norway's oil supply will drop by 80,000 b/d from the previous year to average 1.83 million b/d in 2013. Again, the forecast decrease in 2013 is expected on the back of the natural decline of mature fields, coupled with limited new developments and expected shutdowns and maintenance.

"Despite the plan by operators to fast-track some fields, mostly small and satellite projects, the new volume is not expected to be enough to offset the anticipated natural declines," the *MOMR* observed.

It pointed out that the start-up of the Skarv field was seen as strongly supporting Norway's oil supply in 2013, but maintenance and declines elsewhere were seen as having a heavier impact on output during the year.

On a quarterly basis, Norway's crude oil production in 2013 is seen averaging 1.90m b/d, 1.81m b/d, 1.76m b/d and 1.86m b/d, respectively.

The UK and Norway's production performances have affected the overall picture for OECD Western Europe. The region's oil supply this year is now seen declining by 160,000 b/d from the previous year to an average of 3.62m b/d.

According to the January *MOMR*, OECD Europe is expected to see quarterly oil supply in 2013 of 3.73m b/d, 3.57m b/d, 3.50m b/d and 3.66m b/d, respectively.

## Political wrangling still poses risks for Sudanese oil sector development

Eighteen months after South Sudan's independence from the Republic of Sudan, questions still remain about the implications for oil output and future cooperation between the two. Daniel Brett reports for the *OPEC Bulletin* on the progress made between Sudan and South Sudan on settling their differences over such issues as revenue-sharing and moving forward with the development of the region's lucrative oil industry.





In July 2011, South Sudan became a new nation state following independence from Sudan. But it proved to be a baptism of fire. In taking 75 per cent of Sudan's oil resources, the move led to frequent border clashes and disputes over revenue-sharing with Khartoum, marring efforts to move the oil industry forward.

Recent efforts towards ending the dispute and resuming production have made tentative progress with the Presidents of Sudan and South Sudan finally agreeing in January to shared borders and allowing oil exports to flow from South Sudan's oil fields north through Sudan's pipelines.

This was initially agreed in September 2012, but failed to materialize — leading to a volatile situation as both

countries prepare for a referendum on the sovereignty of the disputed and strategically important Abyei area, which hosts a dwindling supply of oil and lies along the route of one of two crucial export pipelines.

The run-up to the October 2013 referendum threatens to see a resumption of the conflict, which would hamper attempts to revive the oil industries of both Sudan and its new southern neighbour.

### A tenuous peace settlement

South Sudan's President, Salva Kiir, and his Sudanese counterpart, Omar Al-Bashir, signed an agreement in September 2012 to resolve outstanding disputes and to resume oil production in South Sudan, which represents 82 per cent of the country's gross domestic product (GDP).



Left and right: Sudan's Vice President, Ali Osman Mohamed Taha, during the inauguration of a Sudanese oil field, in South Kordofan.

The secession of South Sudan has seen the government in Juba take some 3.8 billion barrels of oil reserves. Its current oil production capacity stands at around 350,000 barrels/day, but could potentially be far greater.

Both countries are facing economic crisis with Sudan under punitive international sanctions and South Sudan witnessing its GDP shrinking by half, as a result of the shutdown of oil exports by Khartoum.

Having lost its oil reserves to the new state, Sudan has sought to cushion the fiscal shock by demanding a boost in its oil transit fees. South Sudan will pay between \$9.10 and \$11/barrel to export its crude through the north. Juba will also pay \$3.08bn to help Sudan overcome the loss of three-quarters of the oil production, due to the South's secession.

Khartoum is also insisting on compensation for the loss of its former assets, such as the Sudan National Petroleum Corporation (Sudapet). Sudan is demanding \$1.8bn for lost assets and the case is now before the International Centre for Investment Dispute Settlement in London.

Both sides desperately need oil to flow to prevent austerity measures from causing political instability and an economic collapse, so transit fees should be a straightforward negotiating point. But they face domestic resistance from their powerful militaries.

The sovereignty of the Abyei area is central to the dispute. The governments of the two Sudans have agreed to a demilitarized zone along the 2,000 km border, but by the beginning of this year neither side had begun withdrawal and Ethiopian monitors had not been deployed.

As such, South Sudanese oil output remained shut-in. Even if oil starts flowing, it would take three months before revenues begin flowing into state coffers and many more months before South Sudan's output resumes at previous rates.

Meanwhile, Sudanese output was 140,000 b/d by the end of 2012, according to government statements. With domestic needs estimated at 115,000 b/d, this leaves it with just 25,000 b/d for export.

### Abyei: biggest challenge

The Abyei dispute is still the biggest short-term political and security challenge for the oil industry. The region is situated in the oil-rich Muglad Basin and once represented a major source of Sudanese oil supply.

The Greater Nile Oil Pipeline (GNOP) runs through the



*Sudan's President, Omar Al-Bashir.*

area, linking the Heglig and Unity oil fields to Port Sudan. The Abyei Protocol of the CPA put in place an interim measure where it was simultaneously part of the states of Sudan's South Kordofan province and South Sudan's Northern Bahr El Ghazal province.

While the 2005 peace deal called for a referendum to settle the issue, the vote has been plunged into controversy and delay that threatens a fresh outbreak of conflict.

At issue is the demographic flux which has seen the indigenous pro-Juba Ngok Dinka community reduced by forced displacement due to war and the pro-Khartoum nomadic Misseriya, who seasonally visit the area, looking for pasture for their cattle.

Whether to include the internally displaced and the nomads on the electoral roll could influence the outcome of the referendum in October.

### By-passing Sudan

The land-locked South Sudan is dependent on Sudanese pipelines to link to its export markets, putting the entire economy at the mercy of relations with Khartoum.

The GNOP runs for approximately 1,600 km from the Heglig and Unity oil fields in the south to the Port Sudan refinery. With a capacity of 450,000 b/d, it was constructed by the Greater Nile Petroleum Operating Company

(GNPOC) and is operated by China's CNPC, which has a 40 per cent stake in GNPOC.

When completed in 1999, the pipeline was the first to link the oil fields in the south to the Red Sea coast in the north, allowing Sudan to export significant quantities of oil for the first time.

Additionally, a 1,380 km pipeline linking the Melut Basin, located about 1,120 km south of Khartoum to the Port of Sudan, began to flow in 2006. The pipeline has a capacity of 500,000 b/d. A smaller pipeline runs 176 km from the Thar Jath and Mala fields and also links to the Port of Sudan.

Fearing its vulnerability to Khartoum's influence over the industry with possession of existing midstream assets, South Sudan is seeking to establish a new pipeline infrastructure to attract investment south of the border.

But plans are unlikely to be realised over the next five years. Juba is looking to build a 700,000–1.00 million b/d pipeline linking oil fields with a new export terminal in Lamu, Kenya, which will form part of the flagship Lamu Port and Southern Sudan-Ethiopia Transport Corridor Project (LAPPSET) infrastructure scheme.

In August 2012, Japan's Toyota Tsusho Corporation issued a \$5bn tender for the 2,000 km pipeline. Given the cost and technical difficulties associated with the project, completion is not expected in the next five years.

Alternatives include a proposed pipeline through Ethiopia to the port of Djibouti. Chinese, United States and European companies have reportedly shown an interest in carrying out feasibility studies for this.

Nevertheless, the pipeline could cost as much as \$4bn and take around three years to complete.

Other plans include a bid to build a temporary underwater pipeline along the Nile from Tharjath to Juba, where oil would then be transferred onto trucks and taken by road to Djibouti, or the Kenyan port of Mombasa.

South Sudan's Minister of Petroleum and Mining, Stephen Dhieu Dau, recently told Reuters that an estimated 30,000 b/d of crude could be exported in this way.

This could be a more viable solution over the short-term, although it will still take time to complete and road transportation would push up the cost of export.

## Competition for investment

The oil industries of Sudan and South Sudan are in a poor state, despite their heavy sweet crude being favoured by energy-hungry Asia.

Oil reserves are set to fall gradually, in line with higher production volumes, unless significant new investment is made in exploration over the coming years.

The civil war meant that most oil exploration was limited to the central and south-central regions of Sudan.

South Sudanese officials claim that international oil companies, such as Total, have already expressed an interest in resuming exploration on Block B in Jonglei province on the border with Ethiopia.

However, instability and a lack of markets are likely to prevent the resumption in exploration and appraisal activity.

The situation in Sudan is more challenging. Khartoum's aim is to boost oil production to 300,000 b/d by 2017. Substantial reserves' potential has been indicated in north-west and eastern Sudan, especially in the Blue Nile Basin and the Red Sea area.

In July 2012, Khatoum announced the winners of its latest licensing round which it said had committed to spending \$1bn on exploration and production activities across 12 new concessions.

Interest was underwhelming and unlikely to reverse the declining trend in Sudanese reserves. Winners of the licences included Canadian independent Statesman Resources and unnamed Chinese, Nigerian, Australian, Brazilian and French companies.

Sudan also recently highlighted a "significant" discovery in Block 7, claiming the find would support its output goals, although no resource estimates were released.

With international sanctions proving to be a barrier and insecurity an enduring risk, labour shortages and infrastructural deficiencies are further obstacles to dramatic increases in production.

Sudan is unlikely to reach its targets under present conditions. Even with the new exploration, it will likely be several years before production from new discoveries is onstream. But if the Sudans can manage to resolve their differences and settle all their disputes, it could be a very different story.



South Sudan's President, Salva Kiir.



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). In some cases, PRID visits schools to give them briefings on the Organization and the oil industry. Here we present some snapshots of such visits.

## Visits

*A group of students from the Sorbonne Law School, Sorbonne University Paris 1, France, visited the OPEC Secretariat on January 10, 2013.*



*Students from the Österreichische Hochschülerschaft Wien, Vienna, visited the OPEC Secretariat on January 8, 2013.*



*A group of students from Webster University, Vienna, visited the OPEC Secretariat on December 14, 2012.*



*Jugendoffiziere (youth officers) from Nürnberg, Germany, visited the OPEC Secretariat on December 14, 2012.*



*CEMS International Management Students, Vienna, Austria, visited the OPEC Secretariat on December 5, 2012.*



## OFID responds to International Year of Water Cooperation

### Institution steps up efforts to provide safe water, sanitation services

The OPEC Fund for International Development (OFID) is committed to raising awareness of the continued need for global efforts to bring about widespread access to safe drinking water and basic sanitation facilities.

Water-related illnesses caused by dirty drinking water and poor sanitation are one of the biggest killers of children worldwide. In fact, studies show that one death occurs every 15 seconds, a shocking statistic.

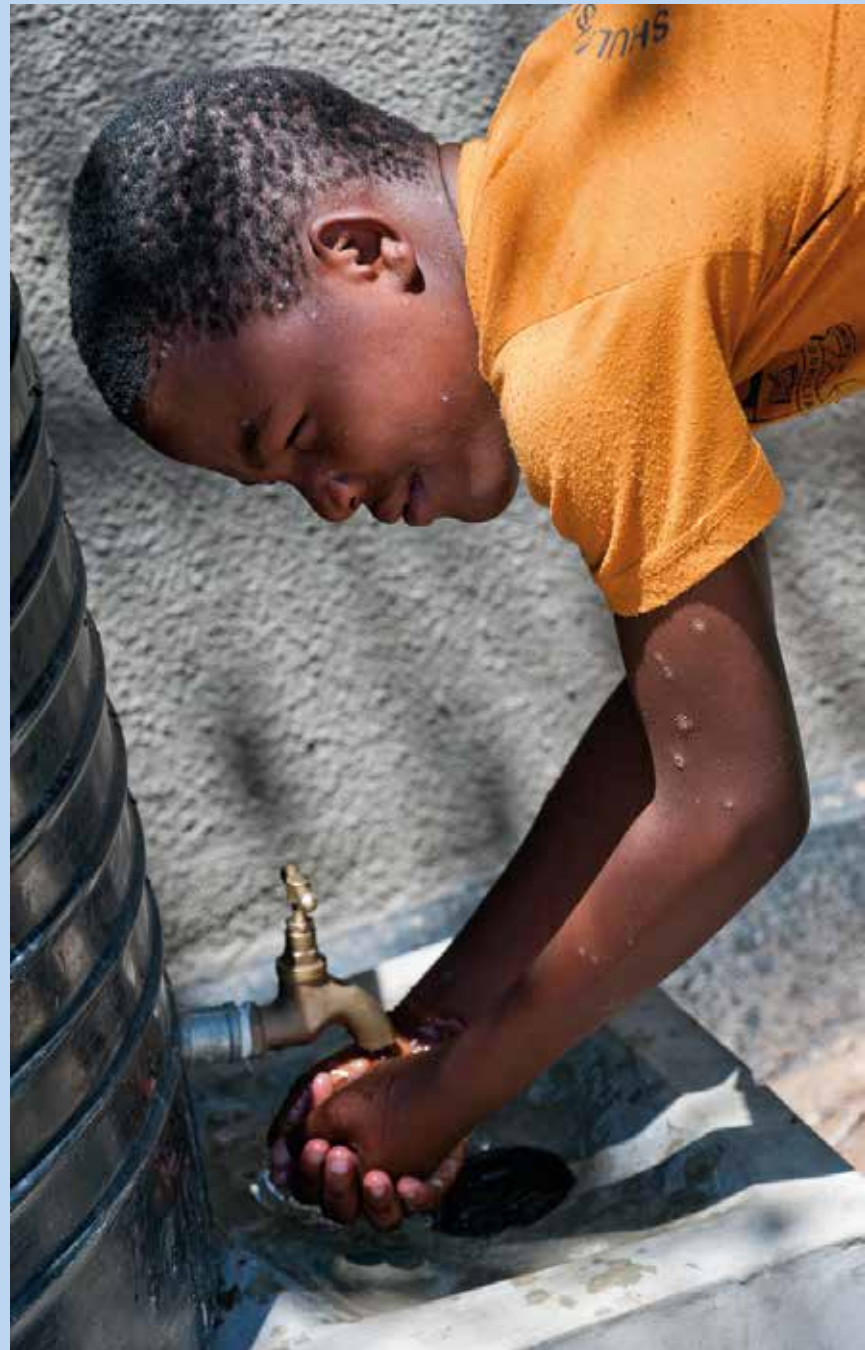
And in line with the International Year of Water Cooperation, designated by the United Nations General Assembly for 2013, OFID is set to increase its focus on an issue it feels is of vital importance to the welfare of the global community.

The Vienna-based institution's *Quarterly* publication, issued in January, noted that among the eight Millennium Development Goals (MDGs) agreed upon by the international community in September 2000 was the stipulation of halving by 2015 the proportion of rural and urban people who could not reach or afford safe drinking water and basic sanitation.

"Encouragingly, while many of the other MDGs have languished, the drinking water target was met as early as 2010 — five years ahead of schedule," said a comment in the publication, which has safe drinking water and basic sanitation as a special theme.

But it said that on the down side, progress had been slow and uneven, and an estimated 780 million people worldwide were still without adequate supplies of clean drinking water.

"The sanitation situation is even more critical. With



*OFID is committed to raising awareness of the continued need for global efforts to bring about widespread access to safe drinking water and basic sanitation facilities.*

# OPEC Fund for International Development (OFID)

some 2.5 billion people lacking access to basic sanitation, the MDG target is unlikely to be achieved,” it affirmed.

The *Quarterly* pointed out that as water demand grew and scarcity rose in tandem with rapid population growth and the consequences of climate change, prospects were indeed sobering.

“At current trends, around three billion people will live in conditions of water stress come 2025, while a similar proportion — most of them in urban areas — will be without access to improved sanitation services,” it maintained.

## Natural gas production

It explained that the objective of the International Year of Water Cooperation was to raise awareness of the potential for increased global cooperation in meeting the vast challenges facing water management.

The year would be dedicated to defining the most pressing issues on water education, water diplomacy, trans-boundary water management, financing cooperation, legal frameworks and the linkages with the MDGs. It said that building on last year’s UN Conference on Sustainable Development (Rio+20), 2013 would also help formulate new Sustainable Development Goals (SDGs) for the development of water resources beyond 2015.

“OFID welcomes this opportunity to place water and sanitation in the global spotlight. Access to both is a necessary building block for sustainable socio-economic development,” stressed the comment.

In recognizing this, OFID had channelled a total of \$800m in valuable concessional financing to a wide range of projects and programmes in the water and sanitation sector.

These resources had served mainly to rehabilitate and extend urban and rural water supplies, sewerage and waste management systems.

The world’s low-income countries (LICs) had received close to 70 per cent of the assistance.

“In addition to reducing poverty, OFID’s interventions have helped to greatly improve the health of millions of poor by curbing the incidence of waterborne diseases,

including malaria, cholera, hepatitis, river blindness, typhoid, dengue fever, guinea worm and ringworm,” the *Quarterly* maintained.

But it stressed that, for OFID, the International Year of Water Cooperation was about much more than just water. It was about the universal right to water within the broader context of the universal right to food and energy.

“The water-food-energy nexus represents arguably the greatest challenge of our time: How can we expand access to these basic needs over the coming decades to meet the growing demands of a burgeoning population that is expected to reach nine billion by 2050?” the publication asked.

It stated that the links across the nexus were clear. With around 70 per cent of available water resources used for agricultural purposes, water was vital to food security. By the same token, water production and distribution would not be possible without access to energy.

“In OFID’s view, the water issue is not one that can be treated in isolation. Nor can the problems of energy or food supply. Which is why OFID has adopted an integrated approach, promoting energy access through its Energy for the Poor Initiative and boosting food production through increased investment in agriculture and water supply,” informed the comment.

As a result, around one-half of the institution’s total commitments during 2010 and 2011 had been dedicated to the water-food-energy nexus. This focus had continued, to an even greater extent through 2012.

“As the world marks the International Year of Water Cooperation, OFID believes that solving the problems of the water-food-energy nexus should take centre stage.

“While we look forward to working with our partners to tackle the challenges of water management, we are convinced that these must be addressed within the broader context of the nexus and, moreover, that the nexus itself should be cardinal in the formulation of the new SDGs, as part of the post-Rio+20 development agenda,” the comment concluded.



*OFID has channelled a total of \$800m in valuable concessional financing to a wide range of projects and programmes in the water and sanitation sector.*





*OFID support is helping to supply schools with much-needed water.*

## Tanzania adopts 'clean' approach to boosting school attendance

The following report by Damelys Delgado, Information Officer at OFID, gives one such example as to how the institution is helping people on the ground overcome the problems associated with the provision of clean drinking water and basic sanitation facilities.

The OPEC Fund for International Development (OFID) is working with the United Nations Children's Fund (UNICEF) to promote enrolment levels and good health in Tanzanian primary schools by providing clean water and improved sanitation facilities.

According to a UNICEF report, studies had shown that in Tanzania there was a 12 per cent increase in school attendance when water became available 15 minutes away from the establishment, rather than an hour.

The total enrollment rate in primary schools had been stagnating at around 77 per cent since 1995, when the government undertook a development programme for the sector.

Focusing initially on primary schools, it sought to

improve quality, expand access and increase building completion. However, with increasing numbers of students, the facilities soon became inadequate. At the same time, the restricted access to water and sanitation deterred students, especially girls, from attending classes.

Although Tanzania is highly aid dependent, the World Bank points out that its economy has been steadily growing at around seven per cent per year.

Nevertheless poverty remains prevalent. Approximately 30 million people, or about 75 per cent of the population, live in rural households that constitute 80 per cent of the country's poor.

In this context, the education system struggles to



# OPEC Fund for International Development (OFID)



*School attendance has proven to be much greater when water resources become available near the educational establishments.*



deliver quality tuition, while dealing with the increasing pressure on over-extended and under-invested social services.

Half the population of Tanzania is under 18 years of age, with waterborne diseases representing the highest health risk, especially for the 36 per cent that live below the poverty line.

One of the biggest killers of children worldwide — with one death every 15 seconds — is water-related illnesses caused by dirty drinking water and poor sanitation.

And the millions that do not succumb are often so incapacitated by water-related diseases that they cannot attend school.

Again, studies show that investing in clean drinking water and improved sanitation would result in an added 272m days each year of school attendance worldwide.

Water, hygiene and sanitation in educational institutions are areas of concern in Tanzania. A recent report by UNICEF provides disturbing data: 38 per cent of primary schools have no water supply on school premises; 84 per cent do not have functioning hand-washing facilities; 96 per cent of schools lack accessible sanitary facilities for disabled children; and 52 per cent do not have doors on toilets to ensure privacy for girls.

As part of a country-wide programme to reduce child

mortality and vulnerability to disease, the ‘Scaling up of School Water Sanitation and Hygiene (SWASH)’ scheme in Tanzania is an initiative funded by UNICEF, Australian Aid and Vienna-based OFID.

The project, which is supported with an OFID grant, aims to support SWASH in 57 schools.

Dr Omar El Hattab, Chief of Water, Sanitation and Hygiene, UNICEF, Tanzania, told the *OFID Quarterly* that support from the institution was making a contribution to boost access to school water supply, better hygiene and higher levels of sanitation, particularly for children with disabilities in 10 target schools.

OFID’s contribution was also improving the skills and the governance of SWASH in the same schools.

“The OFID-financed activities have been implemented in a total of ten schools in the Iringa, Shinyanga and Mwanza regions, benefitting almost 5,000 schoolchildren and 1,500 community members, encompassing teachers, district staff, school management, village government leaders and community mobilizers,” he pointed out.

The project is still ongoing and by December 2013, additional infrastructure will have been constructed and more people will be receiving training to increase awareness and commitment to SWASH.



*Photos in this section courtesy UNICEF.*

# Kazakhstan

*Kazakhstan is clearly a country going places. Since gaining independence in 1991, this important oil and gas producer has grown and developed far and beyond expectations. Today, with healthy economic growth and a far-sighted government, the former Soviet republic is one of the fastest-growing countries in the world and a nation many companies and entrepreneurs are queuing up to do business with.*



# — the Caspian's jewel in the crown



*Assel Serikbayeva, a 22-year-old graduate student from Kazakhstan, is currently writing her Master's thesis on energy security in Vienna. She recently spent time at the OPEC Secretariat in the Austrian capital as an intern. In this article for the OPEC Bulletin, Assel, who dreams to see her country among the world's most developed nations in her lifetime, gives an overview of Kazakh life and some of its proud achievements today.*

*Pictured left is the 97-metre high monument, Baiterek, in Kazakhstan's capital, Astana. Inset is Kazakhstan's President, Nursultan Nazarbayev.*

Just over two decades ago, Kazakhstan, a country the size of Western Europe, proudly celebrated its first day of independence. It proved to be a momentous milestone for the former Soviet republic — a new dawn. Today, the nation ranks among the world's leading energy producers and exporters and is aspiring to become one of the wealthiest countries on the planet.

Officially known as the Republic of Kazakhstan, for most of its history the country has been inhabited by different nomadic tribes speaking the Kazakh language. Eventually, the territory became a part of the Russian Empire and, in 1936, was named the Kazakh Soviet Socialist Republic — the second-largest part of the then Soviet Union. Kazakhstan gained its independence on December 16, 1991. It was the last of the Soviet republics to do so.

“... the Kashagan offshore field, discovered in 2000 in the Kazakh zone of the Caspian Sea, is considered the world's largest discovery in the last 30 years and the biggest field outside the Middle East.”

*Below: An aerial view of the artificial island that makes up the Kashagan offshore oil field in the Caspian Sea in western Kazakhstan.*



Kazakhstan is an important newly independent country by virtue of its extensive territory (it is the world's largest landlocked nation), unique geographical location, its vast concentration and variety of natural resources, and continuing economic growth. Located in the heart of Eurasia, its borders cover 2.73 million square kilometers, making it the ninth-largest country by land mass in the world.

With a population of around 17m, a nominal GDP per capita of over \$11,245 and an estimated annual economic growth rate of 7.1 per cent, this vibrant and expanding oil producer is showing remarkable progress. It was ranked in the top ten fastest-growing countries of 2011, according to the International Monetary Fund.

Indeed, the country is already established among the top ten economies worldwide and is recognized as having the most improved 'ease of doing business' portfolio across several areas of regulation, as measured by the World Bank in its *Doing Business 2013* report.

It means there are plenty of opportunities for opening a business in the country. And not more so than in connection with the country's abundant energy resources, which continue to be the backbone of the economy. Kazakhstan has the largest recoverable crude oil reserves in the Caspian region. According to the *BP Statistical Review of World Energy 2012*, the country's proven oil reserves are estimated at 30 billion barrels. The domestic hydrocarbons industry is estimated to account for

*Below: A hydrocarbons processing complex at Karachaganak, north-western Kazakhstan.*





Above: Kazakhstan has abundant resources of uranium. Above is a tank filled with uranium solution at the Inkai uranium mine near the Taikonur settlement in the south of the country.



Above: The Tengiz oil and gas refinery.



Left: Kazakhstan's President Nazarbayev opening a hydrocarbons plant at Karachaganak.



roughly 50 per cent of the government's revenues, while the KazMunayGas National Oil and Gas Company, with its 44 onshore oil and gas fields, is one of the main drivers behind the country's impressive economic performance and the jewel in the crown regarding Kazakhstan's Sovereign Wealth Fund — Samruk-Kazyna.

Current crude oil production stands at 1.841m barrels/day. Proven natural gas reserves are estimated at 1.9 trillion cubic meters with daily output amounting to 19.3bn cu m. Natural gas is mostly associated with the oil recovered.

Daily petroleum operations are dominated by two super giant fields discovered in 1979 — Tengiz and Karachaganak — which produce about half of Kazakhstan's total oil output.



*The Presidential palace, Ak-Orda, in Astana.*

*A general view of the capital, Astana.*



“Our goal is to be one of the 30 most developed nations in the world by the year 2050.”

— President Nazarbayev

Tengiz is an onshore oil and gas field in the northwestern part of the country. The field, operating since 1993, is considered one of the largest discoveries in the history of oil production.

The Karachaganak onshore field started production in 1984. It is estimated to contain 1bn tons of liquid condensate and crude oil and 1.2tr cu m of natural gas.

Along with the two onshore mega projects, the Kashagan offshore field, discovered in 2000 in the Kazakh zone of the Caspian Sea, is considered the world’s largest discovery in the last 30 years and the biggest field outside the Middle East. It is estimated that Kashagan holds about 13bn b of crude oil. Commercial production at one of the most expensive energy ventures in the world is expected to start later this year.

Numerous smaller oil and gas fields serve as supplementary sources of supply for the east- and west-directed pipelines and feed three local oil refineries in the southern, northern, and western areas of the country.

But Kazakhstan is not just blessed with petroleum. The country has an extensive solid mineral resource base that includes chromium, lead, zinc, manganese, copper, coal, iron, rare earth metals, and gold. The country also holds about 15 per cent of the world’s uranium reserves and is among the largest producers of uranium globally.

However, there is more to Kazakhstan than just its vast natural resources. The local population prides itself in the nation’s unique culture and rich heritage. Kazakhstan is a multiethnic society with a long history of balanced and harmonious social interaction and is renowned for its exceptional hospitality and true warmth.

Kazakhs do not forget their roots, using



Reuters

*Khan Shatyr, billed as the world's biggest tent. Designed by British architect, Norman Foster, it houses entertainment centres for children, cinemas and indoor beaches and waterfalls.*

their traditions as the foundation to build a better future. A visitor can notice traditional ornaments everywhere within the array of shimmering skyscrapers that symbolize Kazakhstan's new capital — Astana. Today, this UNESCO 'Cities for Peace' award-winning city and home to the Congress of World and Traditional Religions looks as modern — if not more so — than any capital in Europe and leaves its visitors wondering what will happen next in this exciting country.

In fact, Kazakhstan is aiming to match world standards in everything it does. Education is a high priority for the Central Asian energy exporter. In 2009, the country ranked first on UNESCO's 'Education for All Development Index', achieving near-universal levels of primary education, adult literacy and gender parity.

The state also strongly encourages a healthy lifestyle by building world-class sports facilities and infrastructure that are, as one, affordable and accessible by people throughout the country. Kazakhstan hosted the 7<sup>th</sup> Asian Winter Games in 2011 — so far the largest event

**"Kazakhs do not forget their roots,  
using their traditions as the foundation  
to build a better future."**

ever to be held in the country since it gained independence. Achievements in sports are a particular source of national pride and unity: last year, at the London Olympic Games, Kazakhstan was ranked 12<sup>th</sup> in the medals table out of 205 national teams.

Today, Kazakhstan is also pushing to be recognized as a global political player, as well as have a seat at the table of the world's economic leaders. The country chaired the Organization for Security and Cooperation in Europe (OSCE) in 2010 and hosted the Summit of its Leaders in December of that year.

The young capital of Astana has already proved it has



*Above: Burabay National Natural Park, the pearl of Kazakhstan. The lake in Burabay resort zone is home to some of the best hotels in Central Asia.*

*Right: Spectacular scenery of the Big Almaty lake and Tien Shan mountains.*

enough experience at organizing such top-level meetings and is opening its doors to new opportunities with the annual Astana Economic Forum and the Astana Mining and Metallurgy event.

But the world also clearly believes in Kazakhstan's potential. Some 103 countries voted in favour of Astana's candidacy to host the international exposition of 2017. The theme of Expo 2017 will be 'Future Energy'. By the time of the exhibition, which will be devoted to discussing energy of the future, the Kashagan oil field is expected to have achieved output of 300,000 b/d, another milestone in the country's continuing development.

Undoubtedly, staging the first international exposition to take place in Central Asia and the Commonwealth of Independent States offers Kazakhstan the perfect opportunity to showcase its international credentials. But it also represents a great responsibility for the nation. The world-scale event, important for energy consumers and producers alike, reflects Kazakhstan's readiness to






establish itself in the big league and adapt to a future world of clean energy products and, ultimately, life without fossil fuels.

All these new developments are combining to form a miracle for Kazakhstan — a miracle that encompasses a stronger, richer and more developed state for tomorrow.

The country's President, Nursultan Nazarbayev, summed this up succinctly in his recent address — Strategy Kazakhstan 2050: New Political Course of the Established State — when he proudly stated that the country has managed to already achieve more than was initially planned and is ready to set even more ambitious targets.

In looking to the future, he confidently declared: “Our goal is to be one of the 30 most developed nations in the world by the year 2050.” The President also recognized a long road of hard work ahead, but on the country's present showing after two decades of extraordinary progress, one could not disagree with his prognosis.

The future does indeed appear bright for Kazakhstan. 



*Left: Baikonur Cosmodrome, the world's first and largest operational space launch facility, which can be found in Kazakhstan.*



## Forthcoming events

**Digital oilfields world summit, February 10–14, 2013**, 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; website: www.iqpc.co.uk.

**12<sup>th</sup> Liquefied natural gas conference, February 12–13, 2013**, Orlando, FL, USA. Details: Platts, 20 Canada Square, Canary Wharf, London E14 5LH, UK. Tel: +44 207 1766142; fax: +44 207 176 8512; e-mail: cynthia\_rugg@platts.com; website: www.events.platts.com.

**FPSO training course, February 12–14, 2013**, Stavanger, Norway. Details: ICBI Conferences Ltd, 8th Floor, 29 Bressenden Place, London SW1E 5DR, UK. Tel: +44 207 915 5103; fax: +44 207 915 5101; e-mail: info@icbi.co.uk; website: www.icbi-uk.com.

**Russia offshore, February 12–15, 2013**, Moscow, Russia. Details: The Exchange Ltd, 5th Floor, 86 Hatton Garden, London EC1N 8QQ, UK. Tel: +44 207 067 1800; fax: +44 207 242 2673; e-mail: marketing@theenergyexchange.co.uk; website: www.theenergyexchange.co.uk.

**FLNG, February 13–14, 2013**, London, UK. Details: SMI Group Ltd, Unit 122, Great Guildford Business Square, 30 Great Guildford Street, London SE1 OHS, UK. Tel: +44 207 827 6000; fax: +44 207 827 6001; e-mail: client\_services@smi-online.co.uk; website: www.smi-online.co.uk.

**Critical equipment maintenance summit, February 17–20, 2013**, Kuwait City, Kuwait. 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; website: www.iqpc.co.uk.

**Kuwait EPC projects summit, February 17–20, 2013**, Kuwait City, Kuwait. 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; website: www.iqpc.co.uk.

**Nigeria oil and gas 2013, February 18, 2013**, Abuja, Nigeria. 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; website: www.thecwcgroup.com.

**3<sup>rd</sup> Annual global LNG forum 2013, February 18–20, 2013**, Lisbon, Portugal. Details: Fleming Europe, Mlynské nivy 71, 82105 Bratislava, Slovakia. Tel: +42 1 257 272 100; e-mail: info@flemingeurope.com; website: www.flemingeurope.com.

**IPWeek 2013, February 18–20, 2013**, London, UK. Details: Energy Institute, 61 New Cavendish Street, London W1G 7AR, UK. Tel: +44 207 467 7116; fax: +44 207 580 2230; e-mail: jwarner@energyinst.org.uk; website: www.energyinst.org.uk.

**ME-TECH 2013, February 18–20, 2013**, Dubai, UAE. 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; website: www.europetro.com.

**Oil and gas mobility summit, February 18–20, 2013**, London, UK. 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; website: www.iqpc.co.uk.

**Pipeline coating 2013, February 18–20, 2013**, Vienna, Austria. Details: Applied Market Information Ltd, AMI House, 45–47 Stokes Croft, Bristol, BS1 3QP, UK. Tel: +44 117 924 9442; fax: +44 117 989 2128; e-mail: info@amiplastics.com; website: www.amiplastics.com.

**Shutdowns and turnarounds, February 18–20, 2013**, Aberdeen, UK. 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; website: www.iqpc.co.uk.

**City gas Asia, February 19–20, 2013**, Hong Kong, PR of China. 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; website: www.iqpc.co.uk.

**Russia and CIS executive summit downstream oil and gas, February 21–23, 2013**, Dubai, UAE. 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; website: www.europetro.com.

**Oil and gas pipelines in the Middle East, February 24–27, 2013**, Abu Dhabi, UAE. Details: The Exchange Ltd, 5<sup>th</sup> Floor, 86 Hatton Garden, London EC1N 8QQ, UK. Tel: +44 207 067 1800; fax: +44 207 242 2673; e-mail: marketing@theenergyexchange.co.uk; website: www.theenergyexchange.co.uk.

**Arctic region oil and gas, February 25–27, 2013**, Stavanger, Norway. Details: ITE Group plc, Oil and Gas Division, 105 Salusbury Road, London NW6 6RG, UK. Tel: +44 207 596 5233; fax: +44 207 596 5106; e-mail: oilgas@ite-exhibitions.com; website: ite-exhibitions.com.

**Utica shale development and growth forum, February 25–27, 2013**, Pittsburgh, PA, USA. 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; website: www.iqpc.co.uk.

**Oil and gas industry fundamentals, February 25–28, 2013**, London, UK. Details: Energy Institute, 61 New Cavendish Street, London W1G 7AR, UK. Tel: +44 207 467 7116; fax: +44 207 580 2230; e-mail: jwarner@energyinst.org.uk; website: www.energyinst.org.uk.

**Shutdowns Fort McMurray, February 26–27, 2013**, Fort McMurray, AB, Canada. Details: The Canadian Institute, 1329 Bay Street, Toronto, ON M5R 2C4, Canada. Tel: +1 877 927 7936; fax: +1 877 927 1563; e-mail: CustomerService@CanadianInstitute.com; website: www.canadianinstitute.com.

**East Mediterranean and North African gas forum, February 26–28, 2013**, Rome, Italy. Details: DMG World Media Ltd, Westgate House, 120/130 Station Road, Redhill, Surrey, RH1 1ET, UK. Tel: +44 1737 855108; fax: +44 1737 855482; e-mail: tonystephen@dmgworldmedia.com; website: www.theeag.com.

**Ukrainian energy forum, February 26–28, 2013**, Kiev, Ukraine. 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; website: www.adamsmithconferences.com.

**15<sup>th</sup> Vietnam oil and gas power, February 27–28, 2013**, Ho Chi Minh City, Vietnam. Details: Centre for Management Technology, 80 Marine Parade Road #13–02, Parkway Parade, 449269 Singapore. Tel: +65 6345 7322/6346 9132; fax: +65 6345 5928; e-mail: cynthia@cmtsp.com.sg; website: www.cmtevents.com.

Solution to the **Puzzle Page** (p85) of the OPEC Bulletin October/December:

C	H	O	K	E	E	N	E	L	Y	P	O	R	P	Y	L	O	P	W	E	
A	E	A	H	M	O	N	O	M	S	U	R	F	A	C	T	A	N	T	C	
T	R	P	Y	H	P	A	R	G	I	T	A	R	T	S	E	O	A	A	O	
A	S	E	D	O	W	N	S	T	R	E	A	M	J	O	B	N	S	N	K	
L	O	N	R	E	S	I	D	U	A	L	O	I	L	B	K	E	G	L	I	
Y	E	E	O	D	R	D	E	R	T	H	G	I	E	W	D	A	E	D	N	
S	E	L	C	L	O	E	N	I	F	E	R	G	A	R	T	A	F	W	G	
R	Y	A	S	T	N	C	E	T	A	N	G	J	H	S	T	A	A	T		
A	T	H	R	C	A	N	C	E	I	O	E	A	E	R	G	S	G	S		
B	S	T	B	O	R	T	Z	K	O	N	D	R	L	E	T	O	N	E	O	
I	S	E	D	V	A	E	O	E	U	I	F	P	H	N	R	D	C			
L	A	N	N	E	P	C	R	T	B	N	N	L	I	D	B	B	E	R	A	
I	M	E	S	R	E	B	U	C	G	O	S	L	H	P	L	F	Y	T		
Z	T	M	L	Y	S	O	T	L	G	O	M	U	P	S	E	O	I	H	A	
E	S	U	A	E	W	E	T	A	D	O	W	Y	G	F	P	C	N	O	L	
R	I	T	E	O	E	N	N	T	N	A	T	K	L	F	L	K	E	L	Y	
S	R	I	L	W	E	N	N	O	S	U	L	P	H	N	A	T	E	S		
N	H	G	S	N	O	G	M	P	E	R	E	H	S	U	L	O	D	I		
I	C	R	A	T	N	E	N	I	L	R	U	P	U	S	I	U	L	P	H	U
D	I	E	N	E	B	Y	T	S	Y	L	O	P	I	G	N	I	R	O	C	R

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# PUZZLE PAGE

The OPEC Bulletin welcomes you to its 'Puzzle page', where readers get the chance to test their knowledge of the petroleum industry in a variety of brain teasers, including word search puzzles and crosswords. This month we are challenging you with a word search. Good luck!

## Word Search

There are some terminologies that are peculiar to the modern-day petroleum industry. You might have heard some of them in the course of your conversations. In the word search below, you should try to look for some of the petroleum-related technologies, identify them and mark them on the grid. There are 40 keys in all and you can pinpoint them diagonally, vertically and so on. But you should make sure of the spelling before you make your mark.

Keys:

ARABIAN GULF	FARM OUT	BALANCING	GASOLINE
BIOMASS	GAS DRIVE	REFINERY	ENTHANOLAMINE
CONDENSATE	GEO THERMAL	DISPERSANT	VALVES
COMPLETION	INJECTION WELL	CRACKING	ZEOLITE
CONTAMINANTS	OCTANE	ALKYLBENEZENES	KEROGEN
CONDUCTIVITY	NAPHTHA	ROYALTY	DISPERSANT
DEVELOPMENTS	METHANOL	REFINE	ROUGHNECK
FARM IN	ANTIKNOCKS	DEACTIVATOR	BUYBACK
DISTILLATION	ADDITIVES	CATALYST	

F	A	R	M	E	R	E	N	I	M	A	L	O	N	A	H	T	N	E	S
K	C	A	B	Y	U	B	L	L	E	W	N	O	I	T	C	E	J	N	I
E	T	A	V	I	T	C	A	E	D	E	I	F	E	U	Q	I	L	I	T
W	H	Y	D	R	O	C	A	R	B	O	N	S	R	O	B	E	I	L	D
S	O	G	E	O	T	H	E	R	M	A	L	T	E	M	A	L	Q	O	I
E	G	E	V	D	T	V	N	G	N	I	K	C	A	R	C	N	U	S	S
N	O	C	E	I	R	S	C	O	N	D	E	N	S	A	T	E	I	A	P
E	E	O	L	S	F	N	Y	N	I	E	O	R	E	F	I	N	E	G	E
Z	V	N	O	P	A	F	C	L	D	T	C	S	E	V	L	A	V	O	R
N	I	D	P	E	R	E	L	N	A	V	E	N	A	P	H	T	H	A	S
E	R	U	M	R	M	U	A	U	A	T	C	L	C	R	A	C	K	S	A
B	D	C	E	S	I	G	L	B	G	S	A	I	P	G	E	O	A	I	N
L	S	T	N	A	N	I	M	A	T	N	O	C	N	M	T	M	H	R	T
Y	A	I	T	N	B	A	M	E	T	H	A	N	O	L	O	L	E	E	G
K	G	V	S	T	E	T	I	L	O	E	Z	I	Y	I	A	C	M	F	D
L	D	I	S	T	I	L	L	A	T	I	O	N	B	D	R	I	V	I	R
A	N	T	I	K	N	O	C	K	S	R	B	A	L	A	N	C	I	N	G
R	O	Y	A	L	T	Y	K	C	E	N	H	G	U	O	R	L	T	E	A
N	E	G	O	R	E	K	G	S	E	V	I	T	I	D	D	A	Y	R	E
A	R	A	B	I	A	N	L	L	E	W	T	A	C	D	L	I	W	Y	S

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## Oil Supply Analyst

### Job dimensions:

Within the Research Division, the Petroleum Studies Department is responsible for providing pertinent and reliable information and analyses in support of decision-making and policy-making in Member Countries. It carries out research programs and studies on short-term petroleum market developments with the aim of issuing reports on a regular, as well as *ad-hoc* basis, highlighting important issues for their use and consideration. It conducts regular forecasts, elaborates and analyzes oil market scenarios and prepares and publishes reports on these findings. It promotes OPEC's views and technical analysis on short-term oil market developments to the industry at large and the general public via the OPEC *Monthly Oil Market Report*, as well as other reports, presentations and related pod casts. And it prepares and contributes to reports to be submitted to the Economic Commission Board, the Board of Governors, the Ministerial Monitoring Sub-Committee, as well as papers for various OPEC publications.

### Objective of position:

The Oil Supply Analyst analyses and forecasts near to short-term non-OPEC oil supply and coordinates and consolidates relevant analyses and data, to calculate the Market Balance and the demand for OPEC crude as well as to analyse rig counts and to follow OPEC production and quota.

### Main responsibilities:

1. Studies and analyses non-OPEC oil supply.
2. Identifies and determines sources of data and information on non-OPEC oil supply and processes available data.
3. Forecasts short-term, non-OPEC supply.
4. Studies and analyses excess capacity on OPEC Member Countries and its impact on the oil market.
5. Monitors world rig count.
6. Consolidates findings of the above analyses and prepares reports, to be included in the Monthly Oil Market Report, as well as in the reports and presentations to the Economic Commission Board and Board of Governors.

### Required competencies and qualifications:

University degree (advanced degree preferred) in Petroleum Engineering or Economics. A minimum of eight years (six years in case of an advanced degree).

Training/specialization in modelling, near to short term non-OPEC oil supply model, designing and running using spread sheets/oil field development/discounted cash flow procedures in oil sector/development contracts. Competencies: Communication skills, analytical skills, presentation skills, interpersonal skills, customer service orientation, initiative and 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 Petroleum 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 a *résumé* and an application form which can be received from their Country's Governor for OPEC. In order for applications to be considered, they must reach the OPEC Secretariat through the relevant Governor not later than **March 16, 2013**.

## Systems/Network Specialist

### Main responsibilities:

Carries out research and troubleshooting of network related problems; improves the performance between software and infrastructure; finds peaks in DataStream and provides for bottlenecks; identifies future needs for software and hardware development. Develops and implements new procedures to improve computer network services and creates automated tasks to warn and prevent service errors and interruptions to limit total down time. Monitors all installed servers for performance and security, searches for bottlenecks and access peaks and investigates for software settings; adjusts software parameters and finds security compromising services and tasks. Maintains and upgrades software/hardware installations, installs regular security patches, determines necessary hardware extensions and prevents hardware related service interruption. Provides user support, troubleshoots user accounts and provides help to prevent further problems; identifies software errors and searches for software updates and patches. Keeps abreast of technological development and runs tests on new software and hardware to identify improvements for the Secretariat. Examines trade magazines and attends computer trade shows to obtain latest information on technology that will benefit the Secretariat.

### Requirements:

University degree in computer science, information technology or other science studies related to information technology. Professional certification in network operating systems and related technologies (preferably Microsoft OS). Four years of work experience.

### Skills and knowledge:

Networking concept. Microsoft and Unix. Exchange e-mail server. Firewall concept. Computer hardware. Video and Web Conferencing. Offer: Commensurate remuneration package (ie monthly basic salary of €3,425 x 12/year) with tax-free benefits and six weeks annual leave.

### Applications:

Applicants should kindly complete the "Application Form" which can be downloaded from our website and send it to: OPEC, Finance & Human Resources Department, Helderstorferstrasse 17, A-1010 Vienna, Austria, or email: [recruitment@opec.org](mailto:recruitment@opec.org). Online applicants should quote "Job Code 10.3.04" in the "Subject" field. An automatic reply will be sent to them to confirm the successful submission of the documents.

The deadline for receipt of applications is Sunday, **February 17, 2013**. Acknowledgements will only be sent to short-listed candidates.

This section includes highlights from the OPEC Monthly Oil Market Reports (MOMR) for December 2012 and January 2013, published by the Petroleum Studies Department of the Secretariat, with additional graphs and tables. 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.

## December 2012

### Crude oil price movements

In line with global crude oil prices, the monthly average price of the OPEC Reference Basket slipped for a second month in a row in November, despite a late-month improvement in the global figure.

Lingering concern about the struggling world economy and its impact on oil consumption weighed on prices earlier in the month. However, from mid-November on, the focus shifted back to concern about disruptions to Middle East supplies following a flare up of geopolitical tensions in the region.

Furthermore, crude markets continued to balance up risks to demand from the United States' 'fiscal cliff' (\$600 billion in automatic budget reductions and expiring tax cuts at the end of 2012) against concern about disruptions to Middle East supplies.

The Basket fell by \$1.50 to settle at a monthly average of \$106.86/b in November, down by 1.38 per cent, but remained above the key \$105/b level. Year-to-date, the Basket averaged \$109.76/b, compared with 2011's average

of \$107.44/b for the same period, a year-on-year increase of \$2.32/b, or 2.15 per cent.

The Basket's Latin American components, Ecuador's Oriente and Venezuela's Merey, averaged below \$100 for the second month in a row. Merey plunged \$4.22 to \$93.28/b, while Oriente slipped \$1.59 to \$97.15/b. African grades Saharan Blend, Es Sieder, Bonny Light and Girassol or Brent-related crudes fell by \$2.24 to an average of \$109.55/b, down by two per cent from the previous month.

The multi-destination Basket components, namely Arab Light, Basrah Light, Kuwait Export and Iran Heavy, lost almost one per cent in November to \$106.89, representing a drop of around \$1/b from the previous month. Meanwhile, the Middle Eastern crudes Murban and Qatar Marine fell by almost 1.5 per cent, or \$1.59, to an average of \$108.41/b.

On December 10, the Basket price stood at \$105.01/b, \$1.85 below November's average.

Crudes oil futures softened again in November, registering two consecutive months of losses on a monthly average basis. There was large day-to-day volatility in the upside and downside trading environment throughout the month. Economic concern continued to gain an upper hand, on worries about supply distribution

due to the Middle Eastern geopolitical tensions. Some easing in geopolitical tensions helped cool the concern that had boosted prices in the middle of the month.

Month-on-month, the Intercontinental Exchange (ICE) Brent front-month price shed almost \$2/b, or around 1.75 per cent, to settle at \$109.53/b, which was below the key \$110/b level.

Meanwhile, the New York Mercantile Exchange (Nymex) West Texas Intermediate (WTI) front-month crude price dropped by over three per cent, or \$2.83, to average \$86.73/b.

The ICE Brent front-month year-to-date average was 0.7 per cent higher at \$111.93/b, compared with the 2011 level of \$111.18/b. WTI's front-month year-to-date average price was almost unchanged from 2011 at \$94.75/b.

Crude oil futures prices continued to slide in the first week of December. On December 10, Nymex WTI and ICE Brent stood at \$85.56/b and \$107.33/b, respectively.

### Commodity markets

For November, commodity prices reported diverse trends. Energy and non-energy prices

**OPEC Reference Basket:** An average of Saharan Blend (Algeria), Girassol (Angola), Oriente (Ecuador), Iran Heavy (IR Iran), Basra Light (Iraq), Kuwait Export (Kuwait), Es Sider (SP Libyan AI), Bonny Light (Nigeria), Qatar Marine (Qatar), Arab Light (Saudi Arabia), Murban (UAE) and Merey (Venezuela).

declined by 1.6 per cent and 2.0 per cent m-o-m, respectively. Food prices dropped by 1.9 per cent m-o-m, base metals fell by 3.3 per cent and gold prices fell by 1.43 per cent.

Commodity prices seem to have been relatively mute to some improvements in the macro-economic data released in November, especially the renewed optimistic sentiment about Chinese and US GDP growth and the expectations of better performances in the fourth quarter of 2012 and in 2013.

October macroeconomic data for China was slightly better than expected, with industrial production growth up to 9.6 per cent y-o-y, versus two per cent in September. Likewise, fixed asset investment growth continued to recover, picking up to 20.7 per cent y-o-y. There was also 14.5 per cent y-o-y growth in nominal retail sales, with robust consumer sentiment which may point to the stabilization of the Chinese economy.

Other encouraging factors were an improvement in manufacturing data out of China, Japan and even the Euro-zone, which pointed to a rebound in that global industry.

**“The Basket fell by \$1.50 to settle at a monthly average of \$106.86/b in November, down by 1.38 per cent, but remained above the key \$105/b level.”**

Nevertheless, the base metal price recovery in the last weeks of November was related mainly to short-covering, and as fundamentals have shown little sign of strengthening, the rebound in this complex of prices was not expected to be sustained, since these markets were hampered by growing stocks in China.

The Henry Hub natural gas price rose by 6.7 per cent m-o-m in November, compared with 16 per cent in the previous month. Bearish factors were warmer-than-normal weather and weak fundamentals on the supply side, as production remained at very high levels.

The agricultural price index decreased by 2.1 per cent m-o-m in November, compared with a fall of 2.96 per cent a month earlier, with food prices reporting a 1.9 per cent drop, less than the fall of 3.99 per cent in the previous month.

In the last week of November, agricultural markets, especially grain prices, benefited from a better macro data release, bullish results of the United States Department of Agriculture export sales data and weather concerns for some commodities. Grain prices remained almost flat in November.

Corn prices recovered in the last week of November, supported by US corn export sales which were higher than expected for the week ending November 15.

US wheat prices went up by 1.8 per cent m-o-m in November. The gains were concentrated in the last week of the month, supported by dry weather in the US which had led to a historically low crop-rating.

The World Bank's base metal price index decreased by 3.3 per cent m-o-m in November, despite the complex being supported by some positive macroeconomic news which boosted long-covering.

Some of the positive macro developments in November were: the agreement by Euro-zone leaders to release the next tranche of aid to Greece and some positive comments about agreement on the US fiscal cliff; positive news about the Chinese economy, where the November manufacturing Purchasing Managers' Index (PMI) rose above 50, establishing a record for the last 13 months; and a recovery in the US housing sector for October, this being the highest recovery since 2008.

Concerning aluminium, most traders continue to be explicitly bearish, regardless of the price rises in November due to the surplus in the market.

Copper prices declined further by 4.3 per cent m-o-m in November from the previous month. The relatively poor performance of copper prices was related greatly to signals of weak domestic demand in China.

Gold prices declined by 1.43 per cent m-o-m in November. Gold prices have been moving up and down, due to geopolitical tensions and

a growing appetite for risk with a recovering equity market performance and dollar strength. Nevertheless, a fragile physical market remains a bearish factor.

It is expected that a resolution to the US fiscal cliff, as well as the risk of deflation, will have a positive impact on the gold market.

## World oil demand

Demand for OPEC crude for 2012 remained unchanged from the previous report, as demand and non-OPEC supply saw only minor adjustments.

Within the quarters, the first, second and fourth quarters experienced upward revisions of 100,000 b/d each, while the third quarter was revised down by 100,000 b/d from the previous assessment.

Demand for OPEC crude stood at 30.1m b/d in 2012, representing a decrease of 100,000 b/d from a year earlier. The first quarter is expected to have declined by 500,000 b/d versus a year ago, the second quarter to have increased by 400,000 b/d and the third quarter to have declined by 200,000 b/d, while the estimate for the fourth quarter remained broadly unchanged.

Demand for OPEC crude for 2013 remains unchanged from the previous report to stand at 29.7m b/d. This represents negative growth of 400,000 b/d, compared with 2012.

Within the quarters, the first, second, and fourth quarters have seen upward adjustments of 100,000 b/d each, while the third quarter has seen a downward revision of 200,000 b/d from the previous assessment.

The first quarter is estimated to increase by 300,000 b/d versus the same quarter last year, while all other quarters are expected to see negative growth, with the bulk of the decrease coming from the third quarter, which is seen falling by 700,000 b/d. The second and fourth quarters are forecast to drop by 600,000 b/d and 500,000 b/d, respectively.

Meanwhile, rebuilding efforts in the aftermath of Hurricane Sandy in the US contributed to the country's oil demand growth in early December. Not only has US oil consumption

grown, albeit slightly, but Indian oil demand has also risen drastically, pushing total world oil use to 90.3m b/d in December. Cold winter weather would affect mainly middle distillate consumption.

Normal year-end winter intensity remains at the level of natural gas use and slightly affecting heating oil demand. This is expected to go hand-in-hand with the world's winter oil demand seasonality.

The challenge in OECD economies has had a negative effect on world oil demand. Furthermore, the future economic prospects in both OECD Europe and the OECD Pacific remain uncertain.

Although there is good news regarding industrial activity in Germany, other areas are producing negative economic signals. While China's economy has shown signs of stagnation in the past few months, the December data suggests a better performance.

Furthermore, the transportation sector was expected to see an inching-up of fuel consumption during the holidays.

World oil demand growth in 2012 is estimated at 800,000 b/d, to average 88.8m b/d. There were no major differences to the previous report.

As a result of the summer power shutdown and seasonal agricultural activity, Indian diesel demand has soared since August; however, diesel usage has been slowing slightly in December. The use of crude and fuel oil by Japanese power plants is also slowing.

In reviewing the year 2012, the report noted that the world financial crisis had a negative impact on the world economy, especially the OECD, since 2009. Nevertheless, the oil demand forecast for 2012 was not as ambiguous as the one for 2010, but a bit more complicated than that of 2011.

Low growth in the US economy, along with a deceleration in other OECD economies, pushed down world GDP growth to 3.0 per cent for the year, versus 3.6 per cent in 2011.

Hence world oil demand suffered the negative consequences of weakening economies to achieve growth of only 800,000 b/d for 2012.

Unlike the previous year, the downward

revision to oil demand growth was not confined to mainly the OECD, but occurred in China as well. Japan shut down almost all its nuclear power plants, forcing the country to use other types of energy. Japanese oil use in power plants increased from 7.5 per cent of total energy use to 19.7 per cent. This denotes growth of 300,000 b/d for the country in 2012 and made up 40 per cent of annual world oil demand growth.

Almost all the petroleum product demand growth in Japan was in the form of fuel and crude oil. Some upward revisions occurred in the non-OECD areas of strongest growth, namely India and the Middle East.

Indian oil demand was heavily affected by the massive electricity shutdown and the summertime agricultural season. The use of independent power-generators led to massive diesel usage country-wide.

The fall in the grid left 600 million people without electricity. Excessive uploads to the electricity line crippled the total system a number of times, leading to the use of independent diesel-operated power-generation. As a result, diesel usage increased by a massive 200,000 b/d in the third quarter.

Industrial, including petrochemical, and transport fuels showed the largest increases during the year, as a result of energy-intensive projects in the non-OECD region. The petrochemical industry, especially in Asia (China), featured substantial increases during the year.

Product-wise, transportation fuel consumption was the dominant feature, with consumption exceeding 50 per cent of the total oil used.

Diesel demand (transport and industrial) grew by 400,000 b/d in 2012, to average 27m b/d worldwide. This was greatly affected by the massive Indian consumption by independent electricity-generators.

Gasoline demand, on the other hand, halted its decline and achieved growth of 0.4 per cent during the year, averaging 22m b/d. The main reason for gasoline's strong performance was the increase in US demand late in the year.

Increased taxes on, and retail prices of, transportation fuel in some OECD countries and the removal of price subsidies in some non-OECD countries suppressed the use of such products.

Japan's natural disaster last year hiked the country's fuel oil demand by 150,000 b/d y-o-y; this came about as nuclear power plants were totally shut down.

China's oil demand grew as forecast in all quarters, except the third, rising by 3.2 per cent y-o-y to average 9.7m b/d. Several factors interfered with China's demand, such as slower industrial manufacturing, lower exports, increased petroleum product prices and the government's obstacles to new car registrations in major cities.

Two factors played a major role in US oil demand in 2012, leading to a contraction of 250,000 b/d in North America. Retail oil prices and the developments in the US economy were major variables in the region's demand during the year.

**“Demand for OPEC crude for 2013 remains unchanged from the previous report to stand at 29.7m b/d. This represents negative growth of 400,000 b/d, compared with 2012.”**

US demand has been the 'wild card' in global oil consumption over the past few years. Following rather devastating first and third quarters, US consumption settled down in the final quarter.

Product-wise, consumption of distillates declined by almost four per cent y-o-y, as a result of slowing industrial manufacturing. In addition, gasoline usage has been in a much better situation this year than last year.

Last year's gasoline demand declined by 2.7 per cent; however, demand this year is almost flat. Overall, US oil demand declined by around 1.6 per cent in 2012.

The 'Big Four' European countries (Germany, France, Italy and the United Kingdom) have continued their weak oil consumption patterns during the last eight years. This has caused OECD

Europe's demand to lose 20 per cent of its value since 1998.

As seen last year, the Euro-zone debt problem has been battering the OECD Europe economy and forcing its total oil demand to lose half a million barrels in 2012.

In all the OECD European countries, the sectors that were hit the most were transport and industry, resulting in lower consumption for distillates and gasoline. This move was seen in the past few years too.

Despite Germany's strong economy, this country's oil demand fell by 70,000 b/d y-o-y. Germany is the largest oil-consuming country in Europe and its energy policies have a major effect on the region's oil demand. Its announcement of a total abandonment of nuclear usage will alter its future energy map after 2020.

Japan's natural disaster last year affected all aspects of the country. Despite the decline in manufacturing activity, the extra use of crude and fuel oil by power plants rose by 300,000 b/d. Furthermore, the rebuilding efforts contributed to the total increase in energy demand in the year.

In the third quarter, China's oil demand experienced its second-weakest growth since the first quarter of 2009. Most of the easing in the country's oil demand is a result of the slowing economy.

A cap that was introduced by the authorities on new car registrations in major cities played a significant role in the country's gasoline consumption this year.

Other factors led to this weak performance, such as high retail prices and the government's five-year energy-saving programme, which was introduced during the year. As economic activity rebounded in the fourth quarter, China's oil usage rose by 400,000 b/d and was expected to end the year with 3.2 per cent growth.

Indian diesel consumption boomed substantially in the third quarter as a result of the total electricity shutdown. Consequently, the use of independent electricity-generators led to a huge use of diesel in the summer.

The transportation (increases in new car registrations) and industrial sectors displayed

solid growth during the year, including the petrochemical and power plant industries. As a result of India's oil demand, Other Asia's oil demand grew by 300,000 b/d for the year.

Energy-intensive projects in the Middle East, especially Saudi Arabia, raised the region's oil demand by 3.3 per cent in 2012; this was 100,000 b/d higher than the growth seen in 2011.

The region's oil demand has been growing at a steady rhythm in the past few years. The product consumed the most was diesel, which was used by both the transport and industrial sectors.

The OECD Pacific's and the non-OECD region's oil demand accounted for all the oil demand growth in 2012, totalling 1.4m b/d y-o-y. Unlike the previous year, 2012's strongest growth was seen in Other Asia, followed by China, the Middle East and Latin America.

North America's oil demand is projected to have decreased by 250,000 b/d in 2012.

The year 2012 looked generally quite disappointing for US consumption, with contractions in all product categories and the worst seen in distillates and residual fuel oil.

The main factors influencing US consumption were weak industrial production, the struggling economy, high retail fuel prices, especially in the first half of the year, and fuel-switching, particularly towards natural gas.

The outlook for US oil consumption for 2013 remains rather pessimistic, especially when taking into consideration the development of the economy and fuel-switching.

For 2012, European oil consumption is expected to have shrunk by 500,000 b/d, as a result of the severe economic turbulence on the continent.

OECD Pacific oil consumption was expected to have grown by 360,000 b/d in 2012, with the bulk of the increase resulting from direct crude/fuel oil burning for electricity-generation and substituting nuclear plants.

India's oil demand growth was estimated at 200,000 b/d for 2012. The early forecast was set at 3.4 per cent demand growth for the year; however, the latest revision has put this at 4.4 per cent for 2012.

Given the strong oil demand by India, Other Asia's oil demand growth is estimated at 300,000 b/d y-o-y in 2012.

Oil consumption in the Middle East has been growing strongly, reaching around 2.9 per cent annually. Most of this growth is attributed to the transport and industrial sectors. It is estimated that the Middle East consumed 7.8m b/d at the end of 2012, denoting growth of 250,000 b/d y-o-y.

Developing countries' oil demand is forecast to have grown by 700,000 b/d in 2012, to average 28.5m b/d.

China's oil demand growth is estimated at 3 per cent, or 300,000 b/d, in 2012.

In 2013, world oil demand is set to grow by 800,000 b/d in 2013, to average 89.6m b/d.

A high level of anticipated risk in the world economy next year is placing a large amount of uncertainty on the world oil demand assessment. This uncertainty is not confined to OECD economies, but is also expected in non-OECD countries, such as China and India.

Hence, the forecast oil demand growth has a downside risk, especially in the first half of the year.

Some factors that are affecting the 2013 oil demand forecast are the current vagueness in the world GDP assessment, retail petroleum prices and abnormal weather, and this could all lead to a revision of the world oil demand assessment later in the year.

The outlook for US oil consumption for 2013 remains somewhat pessimistic. This also applies to European oil consumption. Furthermore, China's oil demand, the second largest in the world, can alter the forecast for world oil use if a further decline in industrial activity occurs, or any new policies are introduced by the government.

Japan's oil demand forecast for 2013 indicates that the usage of fossil fuels for electricity-generation will continue to dominate, since there are no other options, apart from nuclear, for covering the country's large electricity requirements.

During 2013, OECD Pacific oil consumption is projected to remain at the same level as in 2012.



## World oil supply

Preliminary data indicates that global oil supply increased by 330,000 b/d in November to average 90.45m b/d.

Non-OPEC supply experienced growth of 540,000 b/d, while OPEC crude oil production decreased by 210,000 b/d.

The share of OPEC crude oil in global supply declined slightly to 34 per cent in November from 34.3 per cent in the previous month. The estimate is based on preliminary data for non-OPEC supply, estimates for OPEC NGL and OPEC crude oil production from secondary sources.

Meanwhile, non-OPEC production is expected to have increased by 480,000 b/d in 2012, to average 52.93m b/d; this represents a minor downward revision of 10,000 b/d from the previous report.

The supply profiles of the US, Mexico, Australia, Malaysia and Russia were revised up, while the production outlooks for Canada, Norway, the UK, India, Indonesia, Brazil, Oman, Syria, Yemen, South Sudan and Sudan, and Azerbaijan were revised down.

Various unplanned outages, as well as political and weather-related factors, are among the main aspects behind the downward revision to the non-OPEC 2012 figure, while the continued strong growth from US shale production, as well as Russian oil supply, supported the upward revision.

North America remains the region with the highest expected supply growth in 2012, followed by China and the former Soviet Union (FSU), while OECD Western Europe, Africa and the Middle East remain the regions with the highest expected declines.

The US is expected to show the largest production increase among all the non-OPEC producers in 2012, followed by Canada, Russia and China. South Sudan and Sudan, Syria and the UK are likely to encounter the largest output drops among the non-OPEC countries.

According to preliminary, actual and estimated data, total non-OPEC supply rose by 470,000 b/d during the first three quarters of 2012, compared with the same period of

2011. The growth came in all the three quarters. The second quarter experienced the highest growth.

On a quarterly basis, non-OPEC supply in 2012 is expected to have averaged 53.23m b/d, 52.65m b/d, 52.40m b/d and 53.44m b/d, respectively.

Total OECD oil output is seen to have increased by 750,000 b/d in 2012, the highest increase since 1994, to average 20.91m b/d, indicating an upward revision of 45,000 b/d from the previous month.

The expected strong growth in 2012 is significantly higher than the average of the last five years of 10,000 b/d.

North America's oil supply is driving the growth in the OECD, with a minor increase from the OECD Pacific, while OECD Western Europe's supply is seen to decline.

On a quarterly basis, OECD supply in 2012 is estimated to have averaged 21.06m b/d, 20.82m b/d, 20.62m b/d and 21.15m b/d, respectively.

North America's oil production is estimated to increase by 980,000 b/d in 2012 to average 16.51m b/d, the highest level of growth on record and the highest among all the non-OPEC regions, indicating an upward revision of 70,000 b/d from the previous report.

The strong estimates for both the US and Canada constituted the main factor behind the expected growth.

On a quarterly basis, North America's oil supply in 2012 is expected to have averaged 16.48m b/d, 16.38m b/d, 16.45m b/d and 16.75m b/d, respectively.

US oil production is estimated to increase by 810,000 b/d in 2012, the largest growth among all the non-OPEC countries and the largest in US history, to average 9.85m b/d, constituting an upward revision of 100,000 b/d from the previous month.

During the first nine months of 2012, North Dakota's supply averaged 632,000 b/d, an increase of 244,000 b/d over the same period a year earlier, while the Gulf of Mexico's and Alaska's supply declined by 95,000 b/d and 38,000 b/d, respectively, during the same period.

A shift from gas to liquid drilling is seen

to continue to support the growth in US supply. Moreover, increased production from shale activity in Texas, Oklahoma, Wyoming, Colorado and Utah further supported the upward revision, with horizontal drilling and hydraulic fracturing continuing to drive the growth.

Texas supply during the first nine months of 2012 saw growth of 500,000 b/d from the same period a year earlier. This was driven mainly by shale activity from the Eagle Ford and Permian basins.

In addition, US natural gas liquids (NGLs) supply experienced strong growth, in support of the figures. This increased by 200,000 b/d during the first nine months of the year, compared with the same period in 2011.

**“Preliminary data indicates that global oil supply increased by 330,000 b/d in November to average 90.45m b/d.”**

During the third quarter, US oil supply averaged 9.85m b/d, a growth level of 940,000 b/d from the same period a year earlier.

On a quarterly basis, US supply in 2012 is seen to have stood at 9.75m b/d, 9.77m b/d, 9.85m b/d and 10.02m b/d, respectively.

Canada's oil output is expected to grow by 190,000 b/d in 2012 to average 3.75m b/d, constituting a downward revision of 40,000 b/d from the previous report.

During the first three quarters of the year, Canada's supply averaged 3.72m b/d, an increase of 230,000 b/d from the same period a year earlier.

On a quarterly basis, the country's production in 2012 is estimated to have stood at 3.81m b/d, 3.68m b/d, 3.68m b/d and 3.83m b/d, respectively.

Mexico's oil supply is seen to average 2.92m b/d in 2012, denoting a decline of 20,000 b/d

from 2011 and a minor upward revision of 5,000 b/d from the previous report.

During the first three quarters of the year, Mexico's supply averaged 2.92m b/d, a decline of 20,000 b/d from the same period of 2011.

The national operator reported that, in 2013, Mexico's supply will experience some growth.

On a quarterly basis, Mexico's oil production in 2012 is seen to have averaged 2.92m b/d, 2.93m b/d, 2.92m b/d and 2.91m b/d, respectively.

Total OECD Western Europe oil supply is estimate to drop by 270,000 b/d in 2012 to average 3.80m b/d, the lowest level since 1983 and depicting a downward revision of 35,000 b/d from the previous report.

During the first three quarters of the year,

decline by 150,000 b/d in 2012 to average 970,000 b/d, the lowest level since 1977 and constituting a downward revision of 10,000 b/d from the previous report.

On a quarterly basis, the UK's oil supply in 2012 is expected to have averaged 1.08m b/d, 1.01m b/d, 830,000 b/d and 960,000 b/d, respectively.

Total OECD Asia Pacific oil output is expected to increase by 30,000 b/d in 2012 to average 600,000 b/d, denoting an upward revision of 15,000 b/d from the previous month.

On a quarterly basis, the region's oil supply in 2012 is seen to stand at 510,000 b/d, 530,000 b/d, 690,000 b/d and 670,000 b/d, respectively.

Australia's oil supply is expected to increase by 30,000 b/d in 2012 to average 520,000 b/d, constituting an upward revision of 15,000 b/d from the previous report.

During the first nine months of the year, Australia's oil supply averaged 490,000 b/d, an increase of 10,000 b/d over the same period a year earlier.

On a quarterly basis, Australia's oil supply in 2012 is seen to have averaged 430,000 b/d, 450,000 b/d, 600,000 b/d and 590,000 b/d, respectively.

Total developing countries' oil supply is estimated to decline by 460,000 b/d in 2012, compared with the previous year, and to average 12.20m b/d, the lowest level since 2007; this means a downward revision of 55,000 b/d from the previous report.

This decline would be the highest on record. The revision came from Middle Eastern, African and Latin American supply, while projections for Other Asia production remained relatively steady.

All the region's oil supply is expected to decline in 2012 from the previous year. Africa is currently expected to be the region with the second-highest supply decline, following OECD Western Europe.

During the first three quarters of 2012, regional oil production averaged 12.18m b/d, a decline of 510,000 b/d from the same period a year earlier.

On a quarterly basis, developing country

oil supply in 2012 is expected to have averaged 12.34m b/d, 12.11m b/d, 12.08m b/d and 12.29m b/d, respectively.

Other Asia's oil supply is expected to average 3.61m b/d in 2012, the lowest annual level since 1994 and depicting a decline of 20,000 b/d from the previous year, albeit unchanged from the previous month.

Among the region's countries, only Vietnam's, Thailand's and Malaysia's oil supply is expected to increase in 2012, while the rest of the countries are seen to decline.

During the first three quarters of this year, Other Asia's oil production dropped by 20,000 b/d from the same period in 2011.

On a quarterly basis, the region's oil supply in 2012 is expected to have averaged 3.65m b/d, 3.56m b/d, 3.59m b/d and 3.64m b/d, respectively.

Indonesia's oil supply is expected to decline by 60,000 b/d in 2012 to average 960,000 b/d, denoting a downward revision of 5,000 b/d from the previous report.

Malaysia's oil supply is estimate to average 650,000 b/d in 2012, an increase of 10,000 b/d from the previous year and an upward revision of 10,000 b/d from the previous report.

Latin America's oil supply is estimate to remain more or less steady in 2012, with a minor decline of 10,000 b/d to average 4.74m b/d, meaning a small downward revision of 10,000 b/d from the previous report.

Argentina's oil production is expected to average 740,000 b/d in 2012, flat from the previous year and steady from the previous month.

During the first three quarters of 2012, the country's oil supply remained steady with a minor increase of 10,000 b/d from the same period of 2011.

Colombia's oil production is estimated to increase by 30,000 b/d in 2012 to average 950,000 b/d, unchanged from the last report.

During the first three quarters of 2012, Latin America's oil supply increased by 10,000 b/d from the same period of 2011.

On a quarterly basis, the region's oil production in 2012 averaged 4.85m b/d, 4.71m b/d, 4.65m b/d and 4.76m b/d, respectively.

Brazil's oil production is projected to

## “Total developing countries’ oil supply is estimated to decline by 460,000 b/d in 2012, compared with the previous year.”

the region's oil supply dropped by 260,000 b/d from the same period the previous year. The heaviest decline came in the third quarter, when supply fell by 370,000 b/d.

On a quarterly basis, OECD Western Europe's oil supply in 2012 is seen to have stood at 4.07m b/d, 3.91m b/d, 3.499m b/d and 3.73m b/d, respectively.

Norway's oil supply is projected to decline by 120,000 b/d in 2012 and average 1.92m b/d, a downward revision of 20,000 b/d from the previous month.

During the first three quarters of the year, Norway's oil production declined by 100,000 b/d from the same period a year earlier.

On a quarterly basis, Norway's oil production in 2012 is expected to have averaged 2.08m b/d, 1.98m b/d, 1.75m b/d and 1.87m b/d, respectively.

The UK's oil production is estimated to

decrease by 20,000 b/d in 2012 to average 2.62m b/d, depicting a downward revision of 10,000 b/d from the previous report.

During the first three quarters of 2012, Brazil's oil supply remained steady, compared with the previous year, and averaged 2.61m b/d.

On a quarterly basis, the country's oil supply in 2012 is expected to have averaged 2.72m b/d, 2.58m b/d, 2.54m b/d and 2.63m b/d, respectively.

The Middle East's oil supply is estimated to have averaged 1.51m b/d in 2012, a decline of 180,000 b/d from the previous year and indicating a downward revision of 20,000 b/d from the previous report.

Oman's oil production is estimated to have averaged 920,000 b/d in 2012, denoting growth of 30,000 b/d from the previous year and a downward revision of 5,000 b/d from the last report.

Syria's oil supply is expected to decline by 160,000 b/d in 2012 to average 200,000 b/d, constituting a downward revision of 10,000 b/d from the previous month.

The risks associated with Syria's oil supply forecast are very high due to the lack of production data and other supply-related information. The government's budget pointed to a production level of 224,000 b/d in 2013, but this remains under a great deal of uncertainty.

Yemen's oil supply is estimated to average 180,000 b/d in 2012, a decline of 40,000 b/d from the previous year and a downward revision of 5,000 b/d from the previous month.

During the first three quarters of 2012, the Middle East's oil output decreased by 240,000 b/d from the same period of 2011.

On a quarterly basis, the region's oil supply in 2012 is estimated to have averaged 1.44m b/d, 1.54m b/d, 1.53m b/d and 1.52m b/d, respectively.

Africa's oil supply is predicted to average 2.34m b/d in 2012, a decline of 250,000 b/d from the previous year and a downward revision of 15,000 b/d from the previous month.

This revision concerned South Sudan and Sudan. South Sudan and Sudan's oil supply is expected to decrease by 300,000 b/d in 2012

to average 130,000 b/d, a downward revision of 15,000 b/d from the previous month.

During the first three quarters of the year, Africa's oil supply declined by 270,000 b/d, compared with the same period of 2011.

On a quarterly basis, the continent's oil supply in 2012 is seen to have stood at 2.40m b/d, 2.30m b/d, 2.31m b/d and 2.36m b/d, respectively.

Total FSU oil supply is estimated to increase by 70,000 b/d in 2012 to average 13.31m b/d, unchanged from the previous month's assessment.

Russia and Other FSU remain as the drivers of growth in the FSU, while Azerbaijan's and Kazakhstan's supply is seen to decline in 2012.

During the first three quarters of the year, FSU oil supply increased by 20,000 b/d from the same period of 2011.

On a quarterly basis, total FSU supply in 2012 is estimated to have averaged 13.36m b/d, 13.25m b/d, 13.19m b/d and 13.43m b/d, respectively.

Russia's oil supply is anticipated to have increased by 100,000 b/d in 2012 to average 10.37m b/d, an upward revision of 15,000 b/d from the previous month.

Production reached a fourth consecutive monthly record in November as per preliminary data, and this required the revision.

During the first 11 months of 2012, Russia's oil supply increased by 100,000 b/d from the same period a year earlier.

On a quarterly basis, Russia's oil supply in 2012 is expected to have averaged 10.34m b/d, 10.32m b/d, 10.36m b/d and 10.45m b/d, respectively.

Kazakhstan's oil output is expected to average 1.58m b/d in 2012, a decline of 20,000 b/d from the previous year and unchanged from the previous month.

During the first three quarters of 2012, Kazakhstan's oil supply decreased by 30,000 b/d from the same period of 2011.

On a quarterly basis, the country's oil supply in 2012 is expected to have averaged 1.62m b/d, 1.57m b/d, 1.52m b/d and 1.62m b/d, respectively.

Azerbaijan's oil supply is seen to decline by

30,000 b/d in 2012 to average 920,000 b/d, the lowest level since 2007 and denoting a downward revision of 15,000 b/d from the previous month.

During the first three quarters of 2012, Azerbaijan's oil supply decreased by 70,000 b/d from the same period of 2011.

On a quarterly basis, the country's oil supply in 2012 is estimated to have averaged 960,000 b/d, 920,000 b/d, 880,000 b/d and 930,000 b/d, respectively.

Other Europe's oil supply is estimated to have remained flat from 2011 and averaged 140,000 b/d in 2012.

China's oil supply is projected to average 4.20m b/d in 2012, an increase of 80,000 b/d

**“Meanwhile, in 2013, non-OPEC oil supply is forecast to grow by 900,000 b/d to average 53.83m b/d, constituting a minor downward revision of 20,000 b/d.”**

over the previous year and steady from the previous year.

During the first three quarters of the year, China's oil supply increased by 30,000 b/d from the same period of 2011.

On a quarterly basis, the country's oil supply in 2012 is estimated to have stood at 4.16m b/d, 4.16m b/d, 4.20m b/d and 4.27m b/d, respectively.

Meanwhile, in 2013, non-OPEC oil supply is forecast to grow by 900,000 b/d to average 53.83m b/d, constituting a minor downward revision of 20,000 b/d from the previous report.

Non-OPEC oil supply is expected to experience increases in all the quarters in 2013 on an annual basis. On a regional basis, North America is expected to have the highest growth, followed by Latin America and the FSU, while Western Europe is seen to decline.

Growth is expected to come mainly from

the US, Canada, South Sudan and Sudan, Brazil, Australia and Russia, while oil supply from Norway, Syria, Mexico and the UK is seen to decline.

The risk and uncertainties associated with the supply forecast remain high on both sides, especially for the US, Russia, Brazil, Syria, Yemen, South Sudan and Sudan, China and Mexico.

On a quarterly basis, non-OPEC oil supply in 2013 is expected to average 53.48m b/d, 53.48m b/d, 53.81m b/d and 54.54m b/d, respectively.

In addition to historical revisions, there were a few offsetting adjustments to the 2013 non-OPEC supply forecast.

US oil supply growth in 2013 was revised up, as well as that of Mexico, Australia, Malaysia and

Output of OPEC NGLs and non-conventional oils is expected to have increased by 380,000 b/d in 2012 to average 5.75m b/d. In 2013, production of OPEC NGLs is forecast to grow by 240,000 b/d over 2012 to average 5.99m b/d.

## Downstream activity

Product markets in November continued declining, due to further losses at the top and bottom of the barrel.

Gasoline cracks continued to plummet worldwide, following seasonal low demand amid increasing supplies as refineries returned from maintenance. An over-supply of fuel oil at a time of lower bunker demand intensified bearish sentiment at the bottom of the barrel. These factors led to a fall in refinery margins across the board.

US Gulf Coast refining margins plummeted during November to the lowest level seen so far in the year, due mainly to the sharp loss of more than \$12 in gasoline, which had been under pressure since the end of the driving season amid increasing supplies, allowing inventories to recover and reach the typical average level at the end of the month. Additional pressure came from the demand side being affected by the impact of Hurricane Sandy on the East Coast.

In contrast, the winter season has not yet lent sufficient support to distillates to offset the market's generally bearish mood.

The margins for West Texas Intermediate (WTI) fell, due to the plummeting gasoline crack, and lost almost \$7 to remain at around \$25/b. The margins for Light Louisiana Sweet and Arabian Heavy crudes on the US Gulf Coast suffered sharp drops of more than \$8, to stand at around \$8/b and \$5/b, respectively, in November, the lowest levels seen so far in the year.

European gasoline cracks continued in free fall during November, due to improving supplies and weak demand, as bearish signals from the US affected the European market.

In addition, market sentiment turned bearish across the barrel, as the return of several refineries from maintenance eased the tight

situation in the region, while mild weather kept heating oil demand lacklustre.

The refinery margin for Brent crude in North-West Europe showed a sharp loss of \$4 to average \$3.9/b, the lowest level seen in the last seven months.

Refinery margins in Asia lost the ground gained in recent months, because of a bearish performance at the bottom of the barrel, with the fuel oil crack continuing to lose ground due to the worldwide slump in bunker demand. In addition, the return of refineries from maintenance exerted pressure on the supply side.

With the exception of naphtha, losses were recorded across all parts of the barrel, as the market remained under pressure from rising supplies outweighing regional demand.

These developments caused refinery margins in Singapore to show a sharp loss of more than \$2 to average \$2/b in November, the lowest level seen in five months.

US refinery utilization remained at the same level as in recent months as several refineries were affected when Hurricane Sandy struck the East Coast. However, during the last few weeks, utilization rates have started moving up again. Furthermore, around the globe, several refineries are back from maintenance, thus increasing product supply.

US refinery runs remained at around 87 per cent in November, and this was at the same level of the last two months. This was due in part to some maintenance, but mainly to the impact of Hurricane Sandy.

However, during the past few weeks, several refineries, amounting to more than 500,000 b/d of capacity, have been resuming operations in the aftermath of shutdowns caused by the hurricane.

This situation, along with high export levels, continued to keep product inventories below the five-year average, mainly middle distillates, while gasoline inventories showed a sharp recovery to reach the typical average level.

After the end of the driving season, gasoline demand dropped in the Atlantic Basin, causing margins to fall from the high level seen in previous months.

Due to the heavy maintenance season in

**“Total OPEC crude oil production decreased by 210,000 b/d in November, compared with the previous month, to average 30.78m b/d ...”**

Russia, while oil supply from Canada, Norway, the UK, Oman, Yemen, Syria, South Sudan and Sudan, and Azerbaijan was revised down. US oil supply in 2013 is now expected to increase by 410,000 b/d to average 10.26m b/d.

## OPEC oil production

Total OPEC crude oil production decreased by 210,000 b/d in November, compared with the previous month, to average 30.78m b/d, according to secondary sources.

Crude oil output experienced declines from Nigeria, the United Arab Emirates (UAE), Saudi Arabia and Angola in November, compared with the previous month.

OPEC crude oil production, not including Iraq, stood at 27.61m b/d in November, a decrease of 220,000 b/d from the previous month.

Europe, although the region's refineries continued with their throughputs on the rise, refinery utilization averaged more than 82 per cent in October, which was lower than in the previous month when it hit the highest level seen so far this year of around 85 per cent.

In Asia, activity in most of the refineries rose during October after a heavy maintenance season, and Singapore, China and India both increased their runs by three per cent to reach an average of 93 per cent each.

Japanese throughputs increased by two per cent to average around 72 per cent of capacity in November, after the restart of some refineries.

US gasoline demand stood at around 8.7m b/d in November, increasing by 150,000 b/d from the previous month and up by around 200,000 b/d from the same month last year.

Despite the recent rise due to the Thanksgiving holiday, US gasoline demand continued to be seasonally low, being depressed further by the impact of Hurricane Sandy, while supply also tightened due to the disruptions caused by this disaster.

Demand for gasoline continues to increase from Latin America, mainly Brazil demanding growing quantities of refinery-based gasoline and will do so increasingly towards the end of the year due to higher seasonal requirements.

Middle distillate demand stood at around 4.0m b/d in November, which was 370,000 b/d above the previous month and around the same level as a year ago.

Latin American demand for diesel continued to be the main factor contributing to the market. Demand for diesel came mainly from Mexico, Chile, Ecuador, Panama and El Salvador, causing US distillate stocks to continue falling.

During the last few weeks, heating oil demand started to increase, with lower temperatures registered in some regions and total middle distillate demand reaching its highest level this year, at above 4m b/d.

Product market sentiment turned bearish in Europe, as gasoline continued to be hit by lower demand in the Atlantic Basin, and the return of several refineries from maintenance eased the tight situation in the region, with mild weather keeping heating oil demand lacklustre.

Looking ahead, the important German market is currently at lower-than-average levels, but its buying activity should improve when colder weather arrives in Europe.

The Asian market retreated under the pressure of increasing supplies, easing the tight situation seen in previous months, and the cracks weakened across the barrel, with the exception of naphtha, which remained healthy on the back of stronger petrochemical demand, despite increasing inflows into the region.

At the top the barrel, gasoline witnessed a decline, with the market under pressure from ample supplies in the region and the expectations of higher gasoline exports from Taiwan. However, the downside was limited by strong regional demand, mainly from Indonesia – due to the heavy turnaround schedule – the Philippines and Malaysia as well as India, where gasoline consumption improved significantly to a four-month high. In South Korean, gasoline demand declined.

Naphtha kept the ground gained during the last months and continued to show a positive development, with sentiment remaining healthy in the region.

Looking forward, some support is likely to stem from Indonesia's import requirements during the maintenance of that country's refineries and from the firm demand from the petrochemical sector, although this could be offset by maintenance at the naphtha cracker of Japan's Kawasaki complex and the rising supplies from the Middle East, which will weigh on the market.

## Oil trade

Preliminary data shows that US crude oil imports dropped for the third consecutive month in November, by around 300,000 b/d, or 3.7 per cent, from the previous month to average 8m b/d.

On an annual basis, this reflects a loss of 726,000 b/d, or eight per cent, from a year earlier. US crude imports in November were found to be the lowest since January 2000.

US product imports saw no major change from the previous month to average 2.08m b/d,

down by 2.8 per cent m-o-m, while, on an annual basis, they dropped by 409,000 b/d, or 18.8 per cent.

In a year-to-date comparison, crude and product imports declined by 4.2 per cent and 17 per cent, respectively.

In contrast, US product exports in November registered a minor gain from a month earlier of 14,000 b/d, or 0.5 per cent, to average 2.8m b/d. This figure reflects an annual gain of 319,000 b/d, or 10 per cent.

Consequently, total US net imports declined in November to an average of 7.3m b/d – a loss of 3.5 per cent from the previous month and ten per cent from a year earlier.

The last monthly release for September shows that US crude imports fell to their lowest

**“... US crude oil imports dropped for the third consecutive month in November, by around 300,000 b/d, or 3.7 per cent ...”**

level since February 2011. This drop was equal to three per cent on a monthly basis and six per cent y-o-y, and was due to higher domestic production.

Japan's crude oil imports declined in October by 306,000 b/d, or 8.5 per cent, to average 3.3m b/d. This was the lowest level since June. In a y-o-y comparison, they decreased in October by 3.6 per cent.

Japan's oil product imports increased by 44,000 b/d in October to average 738,000 b/d, showing a gain of 6.4 per cent m-o-m and 16.7 per cent y-o-y.

The country's oil product exports fell by 25 per cent, or 124,000 b/d, in October to average 376,000 b/d, the lowest level since February. Annually, this meant a similar loss of 22 per cent.

As a result, Japan's net oil imports declined in October by 138,000 b/d to average 3.6m b/d,

constituting a monthly drop of four per cent and yet an annual gain of 2.5 per cent.

China's crude oil imports rose in October by 677,000 b/d, or 14 per cent, from the previous month to average 5.6m b/d. That was the highest level since China's crude imports soared in May.

In an annual comparison, the country's crude oil imports rose by 849,000 b/d, or 18 per cent, from levels seen the previous year.

China's oil product imports saw a decrease of 83,000 b/d, or 9.5 per cent, from the previous month to average 786,000 b/d.

China's crude oil exports increased by 32,000 b/d, or 64 per cent, to average 82,000 b/d in October to reach their highest level since February.

## **“Preliminary data for October shows that total OECD commercial oil stocks fell by 12.3m b to stand at 2,721m b ...”**

On the other hand, the country's oil product exports declined by 74,000 b/d, or 14 per cent, to average 449,000 b/d.

As a result, China's net oil imports rose on a monthly and annual basis by 12 per cent and 13 per cent, respectively, to reach 5.8m b/d, the highest level since May.

India's crude oil imports in October averaged 3.38m b/d, 137,000 b/d, or 3.9 per cent, lower than in the previous month, when they had risen to a multi-month high. Yet the monthly figures showed a gain of 14 per cent over the same month a year earlier.

India's oil product imports saw a similar pattern, decreasing m-o-m by 9.5 per cent, while y-o-y they increased by 47,000 b/d, or 18.8 per cent, to stand at 295,000 b/d.

India's oil product exports increased by 209,000 b/d, or 16.1 per cent, in October to average 1.5m b/d.

Consequently, India's net oil imports in the month declined by 377,000 b/d to average 2.17m b/d, which was 15 per cent lower than the level seen in September, yet 10.7 per cent higher than a year earlier.

FSU crude oil exports declined by 77,000 b/d, or 1.18 per cent, in October to average 6.4m b/d.

Total FSU oil product exports declined by 448,000 b/d, or 14.9 per cent, from the previous month to average 2.6m b/d.

## **Stock movements**

Preliminary data for October shows that total OECD commercial oil stocks fell by 12.3m b to stand at 2,721m b, after rising by more than 15m b in September.

The total stock-draw came from products, which declined by 17.2m b, while crude rose by 4.9m b. Despite the fall in total stocks, inventories stood at a comfortable level, with a surplus of 75.0m b over a year ago and a gain of 38.0m b compared with the five-year average.

Nonetheless, within the components, tightness remained in products, which were 2.8m b below last year's level in the same period and 17.7m b lower than the five-year average. Meanwhile, crude stocks showed a surplus of 78.3m b with last year and of 55.3m b with the seasonal norm.

On a regional basis, North America's oil stocks declined by 24.4m b, with crude rising by 4.9m b, while products abated this build, falling by 30.3m b. The build in US commercial crude stocks reflected higher growth in light, tight oil supply in the US, as well as higher imports from Canada.

At 686m b, North America's commercial crude oil stocks stood at comfortable levels, denoting a surplus with the five-year average of 55.2m b, as well as being 78.3m b more than a year ago.

However, product stocks remained 30.0m b below both the historical average and a year ago. Middle distillates in that region accounted for the bulk of the deficit, since higher exports were keeping stocks at lower levels.

OECD Europe's inventories saw a build of 10.5m b, driven mainly by an increase of 10.0m b in products, as crude rose by only 500,000 b. With this total build, the region's commercial stocks raised the y-o-y surplus to 35.3m b in October from 14.3m b a month earlier, while remaining 4.0m b below the last five-year average.

Both crude and products showed gains over a year ago at 15.2m b and 20.0m b, respectively, while, when compared with the last five-year average, they saw an opposite picture, with crude stocks 12.7m b below the seasonal norm and product stocks 8.7m b above the seasonal average.

The OECD Pacific's commercial stocks rose in October for the second consecutive month, by 1.6m b, driven by an increase of 3.2m b in products as crude abated this build and declined by 1.5m b. The region's commercial stocks stood at 15.9m b above the last five-year average and were 26.3m b higher than the same time a year ago.

Within the components, commercial crude stood 12.8m b above the historical average and 19.6m b higher than the same period a year ago. Product stocks in the OECD Pacific at the end of October showed surpluses of 3.2m b with the five-year average and 6.7m b with a year earlier.

In terms of days of forward cover, OECD commercial stocks in October stood at 59.5 days, displaying gains of 2.4 days, compared with the last five-year average, and of 1.7 days, compared with the same period in the previous year.

This comfortable level of days of forward cover for the OECD is not expected to fall, since demand in OECD countries is projected to decline further in the coming year during a continued good performance for non-OPEC supply. Indeed, OECD demand for 2013 is expected to fall by 200,000 b/d *vis-à-vis* 2012, while that of non-OPEC is forecast to increase by around 900,000 b/d.

The latest available data for October shows that European stocks reversed the draw of the previous month and experienced a strong contra-seasonal build of 10.5m b to stand at 1,076.8m b.

At this level, they ended the month 30.2m b, or 2.9 per cent higher than a year ago, but they were still 20m b, or 1.8 per cent, below the five-year average. The bulk of the build in total inventories came from products, which increased by 9.9m b, while crude stocks rose by only 600,000 b.

European crude inventories rose by 600,000 b in October, reversing the drop of the previous month, and finished at 458.2m b. At this level, they were 26.3m b, or 6.1 per cent, above the year before, although they were still 5.6m b, or 1.2 per cent, below the last five-year average.

The build was attributed to the large drop in refinery runs. Indeed, autumn refinery maintenance cut European throughputs by almost 600,000 b/d in October to 10.5m b/d, after three months of crude runs of above 11.0m b/d.

This corresponded to a utilization rate of 82.5 per cent, down from 86.5 per cent in the third quarter. However, reduced supply of Russian Urals from the Baltic, as well as the delay at the UK's Buzzard field, limited a further build in crude oil stocks.

Product stocks in Europe posted a significant build of nearly 10m b to end October at 618.7m b, the highest level since April. At this level, they were 3.9m b, or 0.6 per cent, above the same period last year, which was the first surplus since July 2010 when product stocks were above the year-ago level.

However, when compared with the five-year average, European stocks remained 15m b, or 2.3 per cent lower. Within products, all the components experienced builds, with the bulk coming from middle distillates which increased by 6.0m b.

At 382.5m b, distillate stocks stood 8.5m b, or 2.3 per cent, above a year ago and 2.0m b, or 0.5 per cent, above the seasonal average.

Continued weak demand in European countries, combined with higher diesel imports from the US, was behind this build. However, a drop in refinery output limited a further build in distillate stocks.

Gasoline stocks rose by 1.4m b to finish October at 108.3m b, showing a surplus of 1.6m b, or 1.5 per cent, with a year ago, while they

were 6.0m b, or 5.5m b, below the five-year average.

Weakening gasoline fundamentals, following reduced demand in the region, as well as lower transatlantic exports, were behind the build in gasoline inventories.

Fuel oil stocks rose for the third consecutive month, by 2.2m b, to end October at 94.5m b, which were 4.7m b below the same period last year and 13.0m b lower than the five-year average. The stock-build was driven mainly by weaker bunker demand.

US total commercial oil stocks fell in November for the second consecutive month, by 6.4m b, to stand at 1,092.5m. Despite this stock-draw, they were 16.7m b, or 1.6 per cent, above the same period a year ago and 35.1m b, or 3.3 per cent, higher than the five-year average. The fall was attributed to both crude and products, which declined by 3.1m b and 3.4m b, respectively.

In November, US commercial crude stocks reversed the build of the past two months and fell by 3.1m b to stand at 371.8m b. Despite this draw, they showed a surplus with a year ago of 34.1m b, or 10.1 per cent, and they were 42.5m b, or 12.6 per cent, above the five-year average.

It should be noted that the bulk of the stock-draw in crude occurred during the week ending November 30, when crude oil fell by 2.4m b from the previous week, reflecting higher crude runs.

On a monthly basis, the fall in US crude stocks came about from lower imports, which declined by 280,000 b/d to average 7.9m b/d and were almost 800,000 b/d lower than in the same period the previous year.

The increase of 240,000 b/d in crude oil refinery inputs in November from the previous month also contributed to the drop in crude stocks. At 15.2m b/d, US crude runs were also higher than during the same period a year ago, by more than 200,000 b/d.

In November, US refineries operated at around 87 per cent, which was 1.3 per cent above the same month the previous year. In contrast with the draw on total crude commercial stocks, inventories in Cushing showed an increase of about 2.7m b to stand at 45.6m b, well above the same period last year.

Oil product inventories fell by 3.4m b in November, following the substantial draw in the previous month. At 720.8m b, they were 17.4m b, or 2.4 per cent, below last year's level and 7.4m b or 1.0 per cent lower than the five-year average.

Within products, the picture was mixed. Distillates, jet fuel and other unfinished products saw declines, while gasoline and residual fuel oil experienced builds.

Gasoline stocks continued their build of three consecutive months, increasing by 9.7m b to end November at 212.1m b, the highest level since March. Despite this build, they were still 8.9m b, or 4.0 per cent, below those of a year ago, although they were in line with the seasonal average.

**“US total commercial oil stocks fell in November for the second consecutive month, by 6.4m b, to stand at 1,092.5m.”**

Distillate stocks fell for the second consecutive month, by 3.0m b, ending November at 115.1m b. With this draw, distillates are now 28.9m b, or 20.1 per cent, below the year-ago level and 34.5m b, or 23.1 per cent, lower than the seasonal norm.

Higher demand in November was behind the drop in distillate stocks. Indeed, apparent demand for distillates rose by 280,000 b/d and they were almost at the same level as in the same period last year. The continued strength of distillate exports also supported the draw on distillates. However, higher production, reaching 4.7m b/d, limited the drop in distillate stocks.

Jet fuel stocks fell for the second consecutive month, by 3.3m b. At 40.1m b, they were 1.9m b, or 4.5 per cent, lower than a year ago, showing a deficit of 1.2m b, or 2.8 per cent, with the seasonal norm.

Residual oil stocks rose by 800,000 b in November to finish the month at 38.4m b. At this level, they were 900,000 b, or 2.2 per cent, lower than the same month a year ago and 300,000 b, or 0.7 per cent, below the latest five-year average.

In Japan, total commercial oil stocks in October increased for the second consecutive month, by 1.6m b, to stand at 183.0m b, the highest level since the end of December 2008.

With this build, inventories widened the surplus with last year to 2.7 per cent from 1.4 per cent a month earlier, while they remained around 1.9m b, or 1.1 per cent, above the five-year average. The total stock-build came solely from products, which increased by 3.1m b, while crude declined by 1.5m b.

Japanese commercial crude oil stocks declined by 1.5m b, reversing the build of the previous month, and ended October at 102.6m b. At this level, they were 1.6m b above the same time a year ago and 3.6m b above the seasonal average.

The stock-draw came as crude imports decreased by more than 300,000 b/d or 8.5 per cent from a month earlier. At 3.3m b/d, Japanese crude imports were also 3.6 per cent lower than a year ago at the same time.

Lower crude throughputs limited a further draw in October. Indeed, crude throughputs fell by around 150,000 b/d or 4.5 per cent to stand at 3.1m b/d, and were 1.1 per cent below the same period a year ago.

Japanese refineries were running at 69.4 per cent, which was 3.3 per cent lower than in the previous month and 0.1 per cent below the same period last year. Direct crude burning in power plants fell by 2.8 per cent to end October at around 241,750 b/d, but still showed an increase of 9.7 per cent when compared with the same period last year.

Japan's total product inventories continued their upward trend, rising for the seventh consecutive month, by 3.1m b, to end October at 80.3m b, the highest level since December 2008.

With this build, they switched the deficit of 2.2 per cent of the previous month to a surplus of 4.0 per cent. However, the deficit with the seasonal average remained at 2.0 per cent.

The build in total products came as total oil product sales in October fell for the first time in 11 months, as warmer temperatures curbed demand for heating fuel.

Within products, the bulk of the build came from distillates and naphtha, as other products remained almost unchanged.

In Singapore at the end of October, oil product stocks rose for the second consecutive month, by 1.5m b, and ended the month at 39.0m b, the highest level since June. Despite this build, they were still 1.3m b, or 3.1 per cent, below the same time a year ago.

Within products, middle distillate and fuel oil stocks saw builds, while light distillates experienced a draw.

Oil products stocks in the ARA region fell slightly by 200,000 b in October following a 2.6m b decrease a month earlier, ending the month at 29.2m b. At this level, they were 200,000 b, or 0.7 per cent, below the same time last year.

Within products, with the exception of fuel oil, all other products witnessed a draw, with the bulk of this coming from gasoil.

## January 2013

### Oil price movements

In December, the OPEC Reference Basket decreased marginally to settle at \$106.55/b. However, in annual terms, the Basket posted its third consecutive yearly gain to reach a record high of \$109.45/b in 2012. The Basket rose \$1.99 or 1.85 per cent over the previous year. The y-o-y increase was well below the significant 30 per cent rise witnessed in 2011.

Despite the stagnation in global economic growth, the upward movement in prices in 2012 was supported throughout the year by supply disruptions in the North Sea fields and geopolitical factors.

In contrast, the downward movement of the Basket in December was driven mainly by the easing of winter crude oil demand, especially in Northeast Asia, which negatively affected the

performance of the Dubai-related components of the Basket.

On a monthly basis, the OPEC Reference Basket slipped slightly to an average of \$106.55/b in December, representing a decline of 31¢/b, or 0.29 per cent, from the previous month.

The performance of Basket components in December was mixed. While Brent-related crudes improved, Dubai-related Middle Eastern grades fell over the month along with Venezuela's Meresy.

Brent-related crudes, Saharan Blend, Es Sider and Bonny Light, improved by almost 30¢. Middle Eastern spot components and multi-destination grade values fell by around 85¢ and 35¢, respectively. In Latin American, while Ecuador's Oriente registered a hefty \$1.53 gain in December, Meresy values slipped by over \$1.60 as WTS – which is used to calculate its pricing formula – is currently trading at a steep discount to WTI.

On January 15, the Basket price stood at \$108.35/b, \$1.80 above December's average.

The crude oil futures markets ended December and the year moving in a different direction. While posting a gain in December, front-month WTI registered its first annual loss since 2009. In contrast, the front-month ICE Brent posted its third consecutive annual gain, despite slipping marginally in December.

On the Nymex, the WTI front-month contract improved by \$1.49 to average \$88.23/b in December, while ICE Brent decreased by 31¢ to average \$109.22/b, below the key \$110/b level.

Compared with the gains of over 30 per cent in the previous year, the front-month WTI average was down by almost one per cent in 2012 at \$94.20/b, while ICE Brent was slightly higher by 0.73 per cent at \$111.70/b.

On January 15, ICE Brent stood at \$110.30/b and Nymex WTI at \$93.28/b.

### Commodity markets

In December, energy and non-energy prices rose by 0.4 per cent and 1.1 per cent m-o-m, respectively. Agriculture prices declined by 0.6



per cent m-o-m with food prices falling by 1.3 per cent m-o-m. Precious metals fell by two per cent m-o-m, while base metals posted a sharp gain of 4.8 per cent.

Some commodity prices, especially base metals, benefited somewhat from an improvement in the macroeconomic data released in November and December, particularly on renewed positive sentiment on China and US GDP growth.

Nevertheless, the remaining macroeconomic uncertainties represent a risk. Chinese exports to the EU declined by 7.9 per cent in the fourth quarter and strong risk aversion still remains.

The Henry Hub natural gas price index declined by 5.6 per cent m-o-m, compared with a 6.7 per cent fall in November, due to warmer-than-normal winter weather and weak fundamentals on the supply side, as stocks have been increasing.

The agricultural price index decreased slightly by 0.6 per cent m-o-m in December, compared with a 2.1 per cent drop in the previous month, with food prices retreating by 1.2 per cent in the month, compared with a 1.9 per cent fall in November, due to strong price losses in grains, sugar and oilseed.

The World Bank's base metal price index went up by 4.8 per cent m-o-m in December, following a fall in November. Additional positive macroeconomic data on China and the performance of the US, as well encouraging signs coming from Euro-zone leaders and agreement on the US fiscal cliff, boosted a short-lived rise in prices for December.

Base metal markets reacted to improving sentiment regarding Chinese and US growth. Nevertheless, falling foreign exports remain a challenge for Chinese growth in 2013. Chinese exports to the EU declined by 7.9 per cent in the fourth quarter. There is an outlook for surpluses in the base metals markets for 2013, except for tin.

Gold prices declined by 2.1 per cent, compared with 1.4 per cent in the previous month, owing to a better macroeconomic outlook, weak Asian demand and a steep decline in ETP buying. Nevertheless, the outlook for the second quarter of 2013 is that a potential catalyst still

exists that could lead to higher prices at the end of the first three months, while the US fiscal cliff issue persists.

## World oil demand

Demand for OPEC crude in 2012 saw a slight downward revision from the previous report as demand and non-OPEC supply saw minor adjustments.

Within the quarters, the first and second quarters remained unchanged, while the third and fourth quarters were both revised down by 100,000 b/d.

Demand for OPEC crude stood at 30.1m b/d in 2012, representing a decrease of 200,000 b/d from a year earlier. The first quarter is estimated to have declined by 500,000 b/d, versus the same quarter the previous year, the second quarter is estimated to have increased by 400,000 b/d, while the third and fourth quarters saw a decline of 300,000 b/d and 200,000 b/d, respectively.

Demand for OPEC crude in 2013 has been revised down by 100,000 b/d from the previous report to stand at 29.7m b/d. This represents a contraction of 400,000 b/d compared with 2012.

The downward revision came from the upward adjustment in non-OPEC supply, as world oil demand remained unchanged.

Within the quarters, the first and third quarters were revised down by 200,000 b/d, while the second and fourth quarters were adjusted lower by 100,000 b/d.

The first quarter is estimated to increase by 100,000 b/d versus the same quarter last year, while the second and third quarters are expected to see negative growth of 800,000 b/d. The fourth quarter is seen dropping by 200,000 b/d.

Meanwhile, world economic turbulence has affected oil demand in the past few years. Nevertheless, its effect on this year's oil demand is not expected to be as sharp as last year, but instead considerably milder. As in the previous year, oil demand will grow in 2013, but not without some degree of uncertainty.

The US economy is seen to achieve two per cent growth, leading to more stable oil consumption. The Euro-zone was able to somewhat contain its unknown fate of uncertainty. The spillover effect on other economies will certainly be felt, especially in China.

Given the positive momentum in some OECD economies, China's exports and investments are picking up and showing better results. The OECD region will consume less oil than last year; however, the decline will be reduced by almost a half.

The non-OECD region will consume about one million barrels/day more than last year. It is worth noting that some parts of the non-OECD region will experience less economic prosperity than anticipated. Their demand will grow,

**“... the OPEC Reference Basket slipped slightly to an average of \$106.55/b in December, representing a decline of 31¢/b, or 0.29 per cent, from the previous month.”**

but at a slightly slower pace than last year. The transportation and industrial sectors will consume most of the oil this year, and most of the growth will be related to both industries.

World oil demand growth is estimated at 800,000 b/d for 2012 and forecast to see similar growth in 2013, to average 89.6m b/d.

After taking into consideration weekly data for November and December, the year 2012 turned out to be generally quite disappointing for US consumption, with contractions taking place in product categories.

The main factors influencing US consumption for most of 2012 were weak industrial production, the struggling economy, high fuel prices in the first half of the year, and fuel-switching, particularly towards natural gas.

Preliminary weekly data showed a slight increase in US oil consumption for December

at 1.8 per cent. In November, gasoline consumption increased for the first time since August.

The outlook for US consumption in 2013 remains rather pessimistic, especially taking into consideration economic developments. However, the momentum from rather stable economic factors has injected some hope into the country's oil demand for this year. Indeed, the fate of US demand will be greatly influenced by the country's economic developments.

The latest reports about Mexico's November oil consumption showed a significant increase of around 5.2 per cent, compared with the same month the previous year.

Improved industrial and economic activity in general provided the main factors behind

## “Demand for OPEC crude in 2013 has been revised down by 100,000 b/d from the previous report to stand at 29.7m b/d.”

this increase. Residual fuel oil and distillates were the most consumed products in November. Moreover, gasoline faced small shrinkages, as a result of seasonal trends.

Similarly, Canadian data showed oil demand increasing by a strong 9.3 per cent, compared with the previous year; oil usage in transportation, as well as some industrial products, dominated this increase.

Given the decline in US oil demand, demand in the region is estimated to have decreased by 240,000 b/d in 2012, while consumption during 2013 is projected to increase marginally by 40,000 b/d.

European oil consumption contracted in November for the 15th month in a row, reflecting the region's struggling economy. Consumption in the 'Big Four' countries – Germany, France, Italy and UK – fell, with the bulk of the decreases seen in transportation and industrial fuels, as a result of the weak economy.

Undoubtedly, the short- and medium-term development of European consumption does not appear to be positive, as continuing debt problems in several European economies do not seem to have been settled. The Big Four's demand decreased by 120,000 b/d y-o-y in November.

As for the entire 2012, European consumption is expected to have shrunk by 510,000 b/d, as a result of the economic turbulence in several of the region's economies, while consumption in 2013 is projected to fall again, but at a slower rate of 240,000 b/d.

The slowing decline is due to two main factors. The first is that efficiency has reached its bottom level for the medium term. Additionally, the continent's economy is expected to perform slightly better than last year.

The latest monthly data for November for Japan showed decreasing and flat consumption of crude and residual fuel oil direct use, as a result of the high baseline and mild weather.

The consumption of other product categories differed; gasoline and jet fuel fell slightly, while liquefied petroleum gas (LPG) and distillates were flat and kerosene increased sharply. The earlier prognosis that direct crude and residual fuel burning for electricity production would continue at least throughout 2012 has certainly been verified.

As for 2013, current indications suggest that the usage of fossil fuels for electricity generation will continue to be the only available option – apart from nuclear – to cover the country's large electricity requirements.

In South Korea, oil demand increased by 1.2 per cent y-o-y in October. The rises occurred in transportation fuels, especially gasoline and industrial products, notably naphtha.

OECD Asia Pacific oil consumption is estimated to have grown by 350,000 b/d in 2012, with the bulk of the increase resulting from direct crude/fuel oil burning for electricity generation and substituting nuclear plants in Japan.

During 2013, OECD Asia Pacific's oil consumption is projected to remain at the same level as in 2012. Japan is not expected to use more crude oil than its consumption level last year.

Furthermore, the latest approved stimulus

plan for Japan could provide added impetus to the economy. Rebuilding efforts, along with improving economic activity, are expected to prevent the country's oil demand from further declining.

This past summer in India, a massive power shutdown pushed the country's diesel demand past the 200,000 b/d growth level for three months. Nevertheless, this trend was repeated last month, resulting from different factors.

Indian diesel demand bounced back strongly, due to industrial, transport and agricultural sector activity, increasing by seven per cent, or 200,000 b/d, in November y-o-y. This led to the country's total oil demand growing by more than 300,000 b/d during the month.

Therefore, demand for 2012 exceeded early forecasts by 100,000 b/d. As for 2013, Indian demand is not expected to experience the same summer electricity shutdown; therefore, the country's demand forecast is around four per cent.

Indonesia was estimated to have consumed 1.4m b/d of oil by the end of 2012, denoting 4.5 per cent annual y-o-y growth.

Given the strong Indian oil demand, Other Asia's oil demand growth is estimated at 300,000 b/d y-o-y in 2012. As for 2013, demand is forecast to grow according to the normal trend; hence the region's oil demand growth will return to 200,000 b/d.

Oil consumption within the Middle East has grown strongly, reaching around 2.9 per cent annually. Most of the growth is attributed to the transport and industrial sectors. It was forecast that the Middle East would consume 7.6m b/d of oil in 2012, denoting growth of 260,000 b/d for the year.

As for 2013, the region's demand growth will be in the same range, albeit at a slight lower level. Energy-intensive long-term projects are keeping oil demand at a similar level in the mid-term.

Pushed by transport fuel demand, Venezuelan oil demand is forecast to achieve total annual growth of 20 per cent in 2012. Heavy subsidies for domestic fuel use resulted in strong oil demand growth within the country. A booming economy also contributed to this growth in fuel usage.

Developing countries' oil demand growth is estimated at 700,000 b/d y-o-y in 2012, to average 28.0m b/d.

China's oil demand inched up in November to 4.7 per cent growth, adding another 450,000 b/d y-o-y. This level of growth fell within the forecast range. It was attributed to gasoline (315,000 b/d), fuel oil and diesel (100,000 b/d each). Demand was forecast to have grown by 3.2 per cent in 2012 y-o-y.

The same trend is expected for this year, provided that there are no new government policies directed towards a reduction in transport fuel consumption.

## World oil supply

Preliminary data indicates that global oil supply dropped by 100,000 b/d in December compared with the previous month. The decline in OPEC crude oil production in December impacted the global oil output which was partially offset by the increase in non-OPEC supply. The share of OPEC crude oil in global production declined slightly to 33.6 per cent in December. The estimate is based on preliminary data for non-OPEC supply, estimates for OPEC NGLs and OPEC crude production from secondary sources.

Meanwhile, non-OPEC oil supply is estimated to have averaged 52.98m b/d in 2012, an increase of 540,000 b/d over 2011, indicating an upward revision of 50,000 b/d from the previous assessment.

In 2012, non-OPEC supply experienced various improvements and setbacks throughout the year. The initial forecast called for growth of 680,000 b/d; however, different upstream dynamics brought many changes to the original outlook.

OECD America's oil supply growth estimate of 1.07m b/d in 2012 was the highest on record, while, in the opposite direction, the declines of 260,000 b/d and 180,000 b/d, respectively, in Africa and the Middle East were also the largest contractions.

The strong growth in OECD America was supported by shale and oil sand developments, while the declines in the other regions were

driven mainly by political, technical and weather factors.

Disruptions were mainly seen affecting output from South Sudan and Sudan, Syria, the UK, Norway, Indonesia, Yemen, Azerbaijan and Brazil.

On a quarterly basis, non-OPEC supply in 2012 is estimated at 53.22m b/d, 52.65m b/d, 52.47m b/d and 53.59m b/d, respectively.

In 2013, non-OPEC supply is forecast to increase by 930,000 b/d over the previous year to average 53.92m b/d. The current supply expectation indicates an upward revision of 85,000 b/d to total non-OPEC supply, while anticipated growth was revised up by 30,000 b/d from a month earlier.

On a quarterly basis, non-OPEC supply in 2013 is expected to average 53.84m b/d, 53.61m b/d, 53.91m b/d and 54.49m b/d, respectively.

OECD total oil supply in 2013 is expected to average 21.53m b/d, the highest level since 2003, indicating an increase of 520,000 b/d over the previous year and an upward revision of 180,000 b/d from the previous report.

Within the OECD, supply in America and the Asia Pacific is forecast to show growth in 2013, while that of Europe is expected to decline.

On a quarterly basis, total OECD supply is seen to stand at 21.49m b/d, 21.43m b/d, 21.44m b/d and 21.73m b/d, respectively. According to preliminary data, OECD supply averaged 21.42m b/d in the fourth quarter of 2012, showing growth of 570,000 b/d over the same period of 2011.

OECD America's oil supply is projected to increase by 610,000 b/d in 2013 over the previous year, the highest growth among all the non-OPEC regions, to average 17.23m b/d, representing an upward revision of 180,000 b/d from the previous month.

Both US and Canadian supply are expected to grow in 2013, while that of Mexico is estimated to decline.

On a quarterly basis, OECD America's oil supply this year is forecast to average 17.10m b/d, 17.17m b/d, 17.24m b/d and 17.40m b/d, respectively.

US oil supply is projected to increase by 490,000 b/d in 2013, the highest figure among all the non-OPEC countries, to average 10.44m


b/d, representing an upward revision of 180,000 b/d from the previous report.

On a quarterly basis, US oil supply this year is expected to stand at 10.35m b/d, 10.42m b/d, 10.45m b/d and 10.53m b/d, respectively.

Canada's oil production is forecast to average 3.92m b/d in 2013, showing growth of 180,000 b/d over the previous year and unchanged from the previous month.

On a quarterly basis, Canada's oil supply this year is expected to average 3.84m b/d, 3.87m b/d, 3.93m b/d and 4.02m b/d, respectively.

Mexico's oil supply is expected to decline by 70,000 b/d in 2013 from 2012 to average 2.86m b/d, indicating a minor downward revision of 10,000 b/d from the last report.



**“In 2013, non-OPEC supply is forecast to increase by 930,000 b/d over the previous year to average 53.92m b/d.”**

On a quarterly basis, Mexico's oil supply this year is seen to average 2.89m b/d, 2.86m b/d, 2.85m b/d and 2.83m b/d, respectively.

OECD Europe's oil supply is seen to decline by 160,000 b/d from the previous year to average 3.62m b/d in 2013, indicating a downward revision of 20,000 b/d from the previous report.

Output from the region in 2013 is expected to continue the downward trend, yet at a lower rate than the unplanned shutdown effect on output in 2012.

OECD Europe is expected to see quarterly supply in 2013 of 3.73m b/d, 3.57m b/d, 3.50m b/d and 3.66m b/d, respectively.

Norway's oil supply is forecast to drop by 80,000 b/d from the previous year to average 1.83m b/d in 2013, indicating a minor downward revision of 10,000 b/d from the previous report.

On a quarterly basis, Norway's oil production

## “UK oil output is forecast to average 910,000 b/d in 2013, the lowest level since 1977 and representing a decline of 50,000 b/d from the previous year ...”

this year is seen to average 1.90m b/d, 1.81m b/d, 1.76m b/d and 1.86m b/d, respectively.

UK oil output is forecast to average 910,000 b/d in 2013, the lowest level since 1977 and representing a decline of 50,000 b/d from the previous year, while being flat from the previous report.

On a quarterly basis, UK oil output this year is expected to average 940,000 b/d, 880,000 b/d, 870,000 b/d and 930,000 b/d, respectively.

OECD Asia Pacific oil supply is expected to increase by 70,000 b/d in 2013 to average 680,000 b/d, representing an upward revision of 20,000 b/d from the previous month.

Australia's oil supply is likely to drive growth in 2013, while New Zealand's production is forecast to remain unchanged from a year earlier.

On a quarterly basis, total OECD Asia

growth in 2013 is expected after the significant decline in 2012, which was due mainly to political, technical and weather factors.

On a quarterly basis, total oil supply in the developing countries is projected to average 12.13m b/d, 12.24m b/d, 12.49m b/d and 12.64m b/d, respectively. According to preliminary data, supply averaged 12.16m b/d in the fourth quarter of 2012, a decline of 410,000 b/d from the same period in 2011.

Other Asia's oil production is expected to increase by 20,000 b/d in 2013 to average 3.62m b/d, representing a downward revision of 50,000 b/d from the previous report.

This revision was made to the forecasts for Indonesia, Malaysia, Thailand and Vietnam. India's oil supply is expected to increase by 10,000 b/d in 2013 to average 890,000 b/d, unchanged from the previous month.

On a quarterly basis, Other Asia's oil supply this year is forecast to average 3.59m b/d, 3.61m b/d, 3.61m b/d and 3.64m b/d, respectively.

Indonesia's oil production is expected to decline by 40,000 b/d in 2013 to average 920,000 b/d, representing a minor downward revision of less than 10,000 b/d from the previous report.

Malaysia's oil supply is projected to experience the largest increase in the region in 2013 of 40,000 b/d to average 690,000 b/d, constituting a downward revision of 20,000 b/d from the last report.

Vietnam's oil supply is forecast to increase by 10,000 b/d in 2013 to average 400,000 b/d.

Latin America's oil supply is forecast to grow by 130,000 b/d in 2013, the second-highest growth level among all the non-OPEC regions, to average 4.84m b/d, representing a minor downward revision of 10,000 b/d from the previous report.

The expected growth is supported by Brazil and Colombia, while output from Argentina is likely to experience a minor decline in 2013 of 10,000 b/d to average 700,000 b/d.

On a quarterly basis, Latin America's oil supply this year is expected to stand at 4.76m b/d, 4.78m b/d, 4.89m b/d and 4.95m b/d, respectively. Brazil's oil supply is projected to average 2.72m b/d in 2013, an increase of 100,000 b/d

over the previous year and unchanged from the previous report.

On a quarterly basis, Brazil's oil supply this year is expected to stand at 2.65m b/d, 2.66m b/d, 2.76m b/d and 2.80m b/d, respectively.

Middle East oil supply is estimated to decrease by 20,000 b/d in 2013 from the previous year to average 1.50m b/d, steady from the previous report.

Oman's supply is expected to increase by 30,000 b/d in 2013 to average 940,000 b/d, while Syria's output is expected to drop by 70,000 b/d in 2013 to average 140,000 b/d. Yemen's production is expected to average 200,000 b/d in 2013, an increase of 20,000 b/d from 2012.

On a quarterly basis, Middle East oil supply this year is seen to average 1.47m b/d, 1.46m b/d, 1.50m b/d and 1.55m b/d, respectively.

Africa's oil supply is projected to average 2.42m b/d in 2013, an increase of 90,000 b/d from the previous year and a downward revision of 30,000 b/d from the previous report.

South Sudan and Sudan's oil supply is expected to average 240,000 b/d in 2013, an increase of 120,000 b/d from the previous year and a downward revision of 20,000 b/d from the previous report. The expected growth from South Sudan and Sudan is associated with a high level of risk, as the agreement between the two nations regarding oil transport is yet to be realized.

Ghana's oil supply is expected to increase in 2013 on the back of full production from the Jubilee project during the year.

Oil supply from Chad, Egypt, Equatorial Guinea, Gabon and South Africa is expected to experience a minor decrease in 2013 due to natural declines and limited new developments.

On a quarterly basis, Africa's oil supply this year is expected to average 2.32m b/d, 2.40m b/d, 2.47m b/d and 2.49m b/d, respectively.

Total FSU oil supply is projected to increase by 100,000 b/d in 2013 to average 13.41m b/d, depicting a minor downward revision of 15,000 b/d from the previous month.

All the major producers in the FSU are expected to show supply growth in 2013, except for Azerbaijan.

Pacific oil supply this year is expected to average 670,000 b/d, 690,000 b/d, 690,000 b/d and 680,000 b/d, respectively.

Australia's oil supply is forecast to increase by 70,000 b/d in 2013 to average 600,000 b/d, indicating an upward revision of 20,000 b/d from the last report.

On a quarterly basis, Australia's oil supply this year is seen to stand at 590,000 b/d, 610,000 b/d, 610,000 b/d and 600,000 b/d, respectively.

Total developing countries' oil production is projected to grow by 220,000 b/d over the previous year to average 12.37m b/d in 2013, representing a downward revision of 90,000 b/d from the previous month.

This growth is supported mainly by Latin America, Africa and Other Asia, while Middle East supply is seen to drop during the year. The

On a quarterly basis, total oil supply from the FSU this year is seen to average 13.40m b/d, 13.35m b/d, 13.39m b/d and 13.51m b/d, respectively.

Russia's oil supply is expected to increase by 50,000 b/d in 2013 to average 10.42m b/d, representing a minor downward revision of 10,000 b/d from the previous report.

According to preliminary data, Russia's oil supply averaged 10.47m b/d in the fourth quarter of 2012, an increase of 130,000 b/d over the same period of 2011.

On a quarterly basis, Russian oil supply this year is projected to average 10.43m b/d, 10.42m b/d, 10.42m b/d and 10.42m b/d, respectively.

Kazakhstan's oil supply is predicted to increase by 70,000 b/d over the previous year to average 1.66m b/d in 2013, indicating an upward revision of 10,000 b/d from the previous report.

On a quarterly basis, Kazakhstan's oil supply this year is expected to average 1.62m b/d, 1.61m b/d, 1.65m b/d, and 1.73m b/d, respectively.

Azerbaijan's oil supply is forecast to decrease by 40,000 b/d over the previous year to average 870,000 b/d in 2013, representing a downward revision of 15,000 b/d from the previous report.

On a quarterly basis, Azerbaijan's oil supply this year is seen to stand at 900,000 b/d, 860,000 b/d, 850,000 b/d and 870,000 b/d, respectively.

Other Europe oil supply is likely to remain steady in 2013 at 140,000 b/d.

China's oil production is projected to increase by 50,000 b/d over the previous year to average 4.26m b/d in 2013, indicating an upward revision of 15,000 b/d over the previous month.

On a quarterly basis, China's oil supply this year is forecast to average 4.27m b/d, 4.24m b/d, 4.24m b/d and 4.26m b/d, respectively.

## OPEC oil production

According to secondary sources, total OPEC crude oil production averaged 30.37m b/d in December, a decline of 460,000 b/d from

the previous month. Crude oil output saw an increase from Nigeria and Angola, while production fell in Saudi Arabia, Iraq, and Iran.

According to secondary sources, OPEC crude production, not including Iraq, stood at 27.35m b/d in December, a decrease of 270,000 b/d over the previous month.

Production of OPEC NGLs and non-conventional oils are estimated to have averaged 5.75m b/d in 2012, representing growth of 380,000 b/d over the previous year. In 2013, output of OPEC NGLs is projected to average 5.99m b/d, an increase of 240,000 b/d over the previous year.

## Downstream operations

Product markets in December continued declining in the Atlantic Basin as sentiment remained bearish with supplies increasing, following the return of refineries from seasonal maintenance.

A lack of support from the winter season, with the mild weather keeping heating oil demand lacklustre, hit the cracks in the middle of the barrel and caused the margins to fall further.

Meanwhile, in Asia, refinery margins exhibited a slight recovery on the back of rising seasonal demand, supporting middle distillates and fuel oil.

US Gulf Coast refining margins continued to fall during December, due mainly to middle distillates losing ground again during the month as demand fell below the five-year average, despite some support coming from a combination of disruptions caused by Hurricane Sandy.

Inventories also continued to fuel bearish sentiment, with higher-than-average temperatures across the USA contributing to the current unsupportive environment for middle distillates.

The margin for West Texas Intermediate (WTI) fell \$2 to remain at around \$23/b. The margins for Light Louisiana Sweet and Arabian Heavy crude on the US Gulf Coast lost \$1 to stand at around \$6/b and \$4/b, respectively, in December, the lowest levels seen this year.

Refining margins in Northwest Europe and the Mediterranean declined again in the month

under review as supplies increased following the return of some European refineries from seasonal maintenance and with demand remaining weak.

Meanwhile, lower demand for diesel continued to be reported in several European countries.

The refinery margin for Brent crude in Northwest Europe showed a sharp loss of \$2 to average \$1.6/b, the lowest level seen this year.

Refinery margins in Asia showed a slight recovery on the back of firm seasonal demand supporting middle distillates and fuel oil. In addition, the expectations of tighter regional supplies allowed the cracks to improve across the barrel.

**“According to secondary sources, total OPEC crude oil production averaged 30.37m b/d in December, a decline of 460,000 b/d from the previous month.”**

Light distillate naphtha also gained ground, mainly on the back of healthy buying interest from the petrochemical sector, despite falling LPG prices.

These developments caused refinery margins in Singapore to show a slight recovery of 30¢ to average \$2.3/b in December. Although this level remains low, it was the only margin which did not fall during December.

US refinery utilization rates hit a four-month high as most of the refineries recovered from the effects of Hurricane Sandy. In addition, in recent weeks, several refineries around the globe returned from maintenance, thus increasing product supply.

US refinery runs recovered from the damage caused by the hurricane and rose by 2.5 per cent of throughput to reach 91 per cent of capacity, a four-month high. This rise could continue

**“Product markets in December continued declining in the Atlantic Basin as sentiment remained bearish with supplies increasing, following the return of refineries from seasonal maintenance.”**

with the start of Valero's Port Arthur and Motiva refineries.

This situation, along with low domestic demand, allowed product inventories to continue recovering, and gasoline reached a level of inventories above the five-year average, while middle distillates continued to recover, although below average.

During the last quarter, gasoline demand dropped in the Atlantic Basin, causing margins to fall from the high levels seen in previous months. In addition, the mild weather had not supported demand in the Atlantic so far this winter and the margins in Europe have kept falling, causing the region's refineries to continue their moderated throughputs. The refinery utilization averaged above 82 per cent in December.

In Asia, activity in most of the refineries rose during the last few months after a heavy maintenance season, with Singapore, China and India all continuing to run above 93 per cent of capacity to meet the increasing demand in the region during the winter season.

Chinese refineries, in particular, hit a record high throughput of above 10m b/d in November. Japanese throughputs increased by nine per cent to average around 81 per cent of capacity in December, rising to face increasing seasonal demand.

US gasoline demand stood at around 8.5m b/d in December, falling 90,000 b/d from the previous month and down by around 125,000 b/d from the same month the year before.

US gasoline demand continued to be

seasonally low, although the gasoline crack posted a slight gain.

In Latin America, gasoline demand was healthy from countries like Brazil and Argentina, which, along with the lack of arbitrage from Europe to the East Coast, allowed the gasoline crack to strengthen.

Despite imports weakening considerably, higher runs and seasonally low demand pushed gasoline stocks up to reach the highest level since the first quarter of 2012, capping the recovery.

The middle of the barrel continued losing ground over the month.

Middle distillate demand stood at around 3.7m b/d in December, which was 250,000 b/d below the previous month and around 180,000 b/d below the same month the year before.

Diesel was on a downward trend on low demand, which fell below the five-year average after some support came from a combination of disruptions caused by Hurricane Sandy.

Higher-than-average temperatures across the US contributed to the current unsupportive environment for middle distillates.

The gasoil market received some support from the strong export opportunities to Latin America, mainly Chile and Venezuela.

Product market sentiment remained bearish in Europe, as supplies increased following the return of refineries from seasonal maintenance and a lack of support from the winter season, with the mild weather keeping heating oil demand lacklustre.

Meanwhile, increasing stock levels at ARA also weighed on the naphtha market, with arrivals from Russia and the UK helping boost stocks.

The gasoil/diesel market continued bearish as mild weather helped suppress demand, with heating oil demand yet having to pick up in the important German heating oil market. Meanwhile, lower demand for gasoil continued to be reported in France, Switzerland and the Benelux countries.

In contrast, the supply side exerted pressure on ultra-low sulphur diesel over the month, as increased production, following the autumn refinery maintenance season, began to affect the market.

Looking ahead, Russian exports of this product from Primorsk are estimated to be increasing, and this should add further pressure to the European market in the coming months.

On the supply side, the Grangemouth-Scotland and Pembroke-Wales refineries, returning from maintenance during December, added further pressure to the market.

The Asian market showed a slight recovery on the back of firm seasonal demand supporting middle distillates and fuel oil.

Meanwhile, supplies were observed rising in the region as Singapore onshore light distillate stocks expanded. On the other hand, in Sri Lanka, gasoline retail prices have recently been increased by 6.7 per cent to a record high, which could have an adverse impact on gasoline demand.

Fellow light distillate naphtha also gained ground, mainly on the back of healthy buying interest from South Korea and Taiwan, in concert with limited supplies from the Middle East.

Fundamentals are likely to have received support from Malaysian buying interest for the petrochemical sector, and, additionally, Japanese naphtha imports have increased in recent months. However, falling LPG prices could dent demand for naphtha as a feedstock in the coming period and could also lead to increased Western arbitrage inflows into Asia, exerting pressure on the naphtha market.

On the demand side, buying interest was seen from Sri Lanka, Australia and the Philippines and, in the Middle East, from Egypt. Furthermore, Chinese diesel demand also remained upbeat, in line with gradually improving manufacturing and industrial activity.

Kerosene became stronger, with the main supporting factor being healthy demand amid colder temperatures. Demand for heating was high, especially in South Korea and Japan, with temperatures in Seoul reaching the lowest levels seen in 27 years.

Looking forward, the market could receive support from a potential increase in diesel demand in China, ahead of the Lunar Year holidays.

## Oil trade

According to preliminary data, US crude oil imports averaged 8.03m b/d in December, up by 39,500 b/d, or 0.5 per cent, from a month earlier and down by 674,000 b/d, or eight per cent, from the same month the previous year.

In 2012, US crude oil imports averaged 8.5m b/d, reflecting a decline of 416,000 b/d, or five per cent, from the same period last year.

US oil product imports increased by 125,000 b/d, or six per cent, from the previous month, while they decreased on an annual basis by 144,000 b/d, or six per cent, from a year ago.

US product exports increased by 99,000 b/d, or four per cent m-o-m, yet registered a decline of 741,000 b/d, or 20 per cent y-o-y.

US net oil imports decreased in December to average 7.3m b/d, reflecting a monthly and annual gain of 0.9 per cent.

In Japan, crude oil imports remained unchanged, averaging 3.3m b/d. On an annual comparison, crude imports dropped by 269,000 b/d, or eight per cent.

The country's oil product imports declined in November both on a monthly and an annual basis. M-o-m, the decline was equal to 133,000 b/d, or 18 per cent, while on a yearly comparison it amounted to 38,000 b/d, or six per cent.

Japan's oil product exports increased in November by 37,000 b/d, or 10 per cent, m-o-m and by 9,000 b/d, or 2.3 per cent, y-o-y.

Year-to-date, oil product exports were 59,000 b/d, or 12 per cent, lower.

As a result, Japan's net trade oil imports declined by 165,000 b/d, or 4.5 per cent, to average 3.5m b/d, the lowest level of net imports seen since June 2012. Additionally, this reflected a higher drop of eight per cent on an annual basis.

China's crude oil imports rose for the third consecutive month in November by 111,000 b/d, or two per cent, to average 5.7m b/d, the highest level since May 2012.

On an annual comparison, crude imports increased by 165,000 b/d, or three per cent, from the previous year's level. Year-to-date, the numbers showed an increase of 369,000 b/d, or 7.3 per cent.

China's crude oil imports increased in November as crude refining volumes soared to a record-high level and as refineries added to their stocks in preparation for the Chinese New Year Holidays in February.

China's oil product imports also rose from the previous month to average 888,000 b/d, the highest level since March 2012, gaining 101,000 b/d, or 13 per cent, m-o-m, while dropping by 275,000 b/d, or 24 per cent, y-o-y.

Similarly, China's oil product exports saw a monthly gain of 97,000 b/d, or 20 per cent, while decreasing by 84,000 b/d, or 13 per cent, from the previous year.

Accordingly, China's net oil trade increased by 169,000 b/d, or three per cent, on a monthly basis, while it declined by 23,000 b/d, or 0.4 per cent, from a year ago.

India's crude oil imports increased in November, both on a monthly and an annual basis. M-o-m, the increase was equal to 298,000 b/d, or nine per cent, while y-o-y it saw a slight increase of 1.5 per cent to average 3.69m b/d.

India's oil product imports increased as well in November by 15,000 b/d, or 5.1 per cent, to average 310,000 b/d, a drop of 15,000 b/d, or five per cent, from an annual perspective.

The oil product imports' monthly gain came as a result of increased imported volumes of fuel oil, naphtha and LPG. Fuel oil saw the greatest increase in the monthly import volume, growing by 68 per cent from the previous month as a result of its increased usage for power generation.

With regard to India's product exports, the figure reflected a gain, both on a monthly and annual basis. In November, India's oil product exports increased by 5.4 per cent to average 15.29m b/d, a record-high level, while the increase from a year earlier equaled 279,000 b/d, or 21 per cent.

The monthly gain in oil product exports resulted from higher export volumes of all products, except fuel oil exports, which declined by 21 per cent from a month earlier.

As a result, India's net oil imports increased by 233,000 b/d, or 10.7 per cent, m-o-m, while declining by 241,000 b/d, or nine per cent, y-o-y, in November to average 24m b/d.

In November, total FSU crude oil exports declined by 62,000 b/d, or 0.97 per cent, to average 6.4m b/d.

On the other hand, total FSU oil product exports increased in November by 543,000 b/d, or 21.3 per cent, to average 3.1m b/d. Exports rose for all products ranging between 13 per cent and 30 per cent from the previous month. The only exception was seen on jet fuel and VGO, which fell by 74 per cent and six per cent, respectively, from a month earlier.

## Stock movements

Preliminary data for November shows that total OECD commercial oil stocks fell seasonally by 15.3m b to stand at 2,706m b. Despite the fall in total stocks, inventories showed a surplus of 33.6m b over a year ago and a gain of 16.0m b compared with the five-year average.

**“According to preliminary data, US crude oil imports averaged 8.03m b/d in December, up by 39,500 b/d, or 0.5 per cent, from a month earlier ...”**

The total stock-draw came from products as they declined by 16.0m b with crude showing a small build of 700,000 b.

Within the components, crude stocks stood at comfortable levels, indicating a surplus of 51.0m b with last year and nearly 48.7m b with the seasonal norm. However, products remained tight, showing a deficit of 28.8m b with the previous year and 32.7m b with the seasonal norm.

On a regional basis, North America's stocks declined in November by 8.8m b, with crude and products falling by 3.7m b and 5.1m b, respectively.

The fall in US commercial crude stocks in November reflected a higher refinery utilization rate, combined with lower crude imports, averaging less than 8.0m b/d.

At 690m b, North America's commercial crude oil stocks stood at comfortable levels, denoting a surplus with the five-year average of 65.6m b, as well as being 51.0m b more than a year ago.

However, product stocks remained 8.1m b below the historical average and 15.5m b less than a year ago. Middle distillates accounted for the bulk of the deficit, indicating 32m b below the seasonal norm, while gasoline stocks started to improve, showing a surplus of 6.0m b with the five-year average.

**“The latest available data for December shows that European stocks reversed the build of the previous month and fell by 12.6m b to stand at 1,065.0m b.”**

OECD Europe's inventories saw a build of 4.2m b in November, reversing the fall of the previous two months, driven mainly by the build of 8.1m b in crude, as products abated the build and declined by 3.9m b.

Despite the total stock-build, the region's commercial stocks remained 44m b below the five-year average and stood 9.7m b below a year ago at the same time.

Both crude and products showed a deficit with the five-year average at 19.0m b and 27m b, respectively. Product stocks stood at 15.0m b below a year earlier, while crude stocks indicated a surplus of 5.3m b with the previous year.

In November, total commercial oil stocks in the OECD Pacific declined by 10.7m b after

remaining almost unchanged in October and ending the month at 417m b.

Despite the stock-draw, the region's commercial stocks stood at 2.6m b above the last five-year average and were 7.7m b higher than at the same time a year ago.

Both crude and product stocks went down in November by 3.7m b and 7.0m b, respectively. Within the components, commercial crude stood 2.1m b above the historical average and 6.1m b higher than over the same period a year ago.

Product stocks in the OECD Pacific at the end of November showed a slight surplus of 500,000 b with the five-year average and 1.7m b with a year earlier.

In terms of days of forward cover, OECD commercial oil stocks in October stood at nearly 58 days, a loss of one day compared with the previous month, but they displayed a gain of nearly two days over the five-year average and a gain of around one day over the average a year ago at the same time.

The latest available data for December shows that European stocks reversed the build of the previous month and fell by 12.6m b to stand at 1,065.0m b. At this level, they ended the month 4.2m b, or 0.4 per cent, below a year ago at the same time and were 63.2m b, or 5.7 per cent, below the five-year average.

Most of the stock-draw came from crude, which declined by 11.1m b, while product stocks decreased only by 1.5m b.

European crude inventories fell by 11.1m b in December, reversing the build of 8.1m b of the previous month, and finished at 451.7m b, an eight-month low. At this level, they were 26.0m b, or 5.4 per cent, above a year earlier, although still 13.0m b, or 2.9 per cent, below the five-year average.

A higher increase in demand from refiners, averaging 10.5m b/d, almost 90,000 b/d above the November level, was behind the draw in European crude stocks. Average refinery utilization edged above 82 per cent of capacity, but was well down on the summer peak of 87 per cent.

Product stocks in Europe fell by 1.5m b after the fourth consecutive month of a build and

ended December at 600.6m b, leaving them at 34.0m b, or 5.4 per cent, below the same period the previous year and showing a deficit of 50.7m b, or 7.8 per cent, with the five-year average.

Within products, and with the exception of middle distillates which remained unchanged, all components experienced draws. Gasoline stocks saw a slight fall of 100,000 b to end the month of December at 105.2m b and were 4.9m b, or 4.4 per cent, less than a year ago and 15.6m b, or 12.9 per cent, below the seasonal average.

The drop in gasoline stocks reflects mainly higher exports to the US to temporarily replace the output lost from US East Coast refineries as demand in Europe continued to remain weak.

Fuel oil stocks were lower by 600,000 b, ending the month of December at 91.7m b, which was 4.1m b below the same period the previous year and 16.3m b lower than the five-year average.

Higher exports to Singapore led to the stock-draw in residual fuels. Middle distillates remained unchanged in December to stand at 373.5m b. At this level, they were 4.1m b, or 4.3 per cent, below a year ago and 16.2m b, or 4.2 per cent, below the seasonal average.

Higher demand in the Mediterranean region was offset by higher distillate production.

In a country breakdown, US total commercial oil stocks fell in December by 3.0m b, following a strong drop of 22m b in November to stand at 1,089.5m b. Despite this stock-draw, they were 35.4m b, or 3.4 per cent, above the same period a year ago and 54.7m b, or 5.3 per cent, higher than the five-year average. The fall was attributed to crude, which declined by 11.8m b, while products abated the draw, increasing by 8.8m b.

In December, US commercial crude stocks declined by 11.8m b for the second consecutive month to stand at 359.9m b. Despite this draw, crude commercial oil stocks remained at comfortable levels, indicating a surplus of 29.3m b, or 8.8 per cent, with a year ago and 40m b, or 12.5 per cent, with the five-year average.

On a monthly basis, the fall in US crude stocks came about from higher crude oil refinery



inputs which rose by nearly 400,000 b/d to 15.4m b/d, much higher than at the same time last year, indicating growth of 750,000 b/d.

In December, US refineries operated at around 90.6 per cent, which was 2.4 per cent above November and 5.8 per cent higher than the same month last year.

In December US crude imports averaged nearly 8.0m b/d, almost unchanged from a month earlier, but lower than the level of December 2011, when imports reached 8.4m b/d.

Oil product inventories rose by 8.8m b in December after four consecutive months of stock-draw. At 729.6m b, the deficit incurred in the month switched to a surplus of 6.1m b, or 0.8 per cent, from a year earlier to stand higher by 14.7m b, or 2.1 per cent, compared with the seasonal average.

Within products, the picture was mixed. Distillates and gasoline saw builds, while residual fuel, jet fuel stocks and other unfinished products witnessed declines.

Gasoline stocks continued their build of four consecutive months, increasing by 13.6m b to end December at 225.7m b, the highest level since March.

Distillate stocks reversed the fall of the last two months and increased by 8.9m b to end the month of December at 124.0m b.

Jet fuel stocks fell for the second consecutive month, by 1.0m b. At 39.2m b, they were 2.3m b, or 5.5 per cent, lower than a year ago.

Residual oil stocks also declined by 2.0m b in December to finish the month at 36.4m b.

In November, total commercial oil stocks in Japan reversed the build of the last two months and declined by 10.7m b to stand at 172.3m b, the lowest level since the end of March 2012.

With this stock draw, they switched the surplus of the previous month to a deficit of 2.3 per cent with a year ago, and were 7.8m b, or 4.4 per cent, below the five-year average. Both crude and product stocks went down.

Japanese commercial crude oil stocks fell by 3.7m b for the second consecutive month and ended November at 98.9m b. At this level, they stood at 500,000 b above a year ago at

the same time, while they remained 500,000 b below the seasonal average.

The stock-draw in crude came as crude throughput rose by 106,000 b/d, or 3.4 per cent, from a month earlier. However, at 3.2m b/d, Japanese crude oil runs were 5.0 per cent less than a year ago at the same time. Japanese's refiners were running at 71.8 per cent, 2.4 per cent higher than in the previous month, but 3.5 per cent below the same period the previous year.

In November, Japanese crude oil imports stood at 3.3m b, unchanged from the previous month, but were 7.6 per cent less than a year ago at the same period.

Japan's total oil product inventories reversed their upward trend of seven consecutive months and declined in November by 7.0m b. At 733m b, Japanese product stocks stood at 4.5m b, or 5.8 per cent, below a year ago at the same period and 7.3m b, or 9.1 per cent, less than the five-year average.

The stock-draw in total products came as total oil product sales in November rose by 8.5 per cent from a month earlier to reach 3.5m b/d. At this level, they are 2.0 per cent higher than a year earlier. The increase in oil product sales was supported by firm fuel oil demand combined with higher kerosene consumption driven by colder-than-normal weather.

All products experienced a stock-draw with the bulk coming from distillate fuel. Indeed, distillate stocks fell by 3.1m b to end the month of November at 34.4m b.

Within distillate components, kerosene and gasoil oil stocks went down by 14.6 per cent and 0.5 per cent, respectively, while jet oil fuel stocks rose by 1.2 per cent.

The strong fall in kerosene stocks is attributed to very high consumption with almost double from last month, due to colder weather. Gasoline stocks fell by 1.3m b to end the month at 12.7m b. Residual fuel oil stocks fell by 1.7m b to stand at 15.5m b. Naphtha inventories saw a stock draw of 1.0m b, ending November at 10.7m b.

At the end of November, product stocks in Singapore rose by 1.2m b for the third

consecutive month and ended the month at 42.7m b, the highest level since August 2011. At this level, they were at 3.4m b, or 8.6 per cent, above a year ago at the same time.

Within products, fuel oil saw the bulk of the build increasing by 1.7m b, followed by a 400,000 b build in light distillate stocks, while middle distillates declined by 1.0m b.

Light distillate stocks rose to 9.6m b at the end of November. Residual fuel oil climbed to 22.7m b, nearly an eight-month high, while middle distillate stocks fell in November to stand at 10.4m b.

Products stocks in Amsterdam-Rotterdam-Antwerp (ARA) fell by 1.9m b in November for the third consecutive month and ended the month

**“In November, total commercial oil stocks in Japan reversed the build of the last two months and declined by 10.7m b to stand at 172.3m b ...”**

at 27.3m b. At this level, they stood at 3.5m b, or 11.3 per cent, below last year at the same time.

Within products, the picture was mixed, fuel oil, gasoil and gasoline saw a drop, while naphtha and jet fuel oil increased.

Fuel oil stocks fell by 1.6m b, reversing the build of last month, and ended the month of November at 5.0m b. Gasoil stocks also fell by 800,000 b to stand at 13.7m b, the lowest level since the end of November 2008, when demand was down sharply in the midst of the financial crisis.


Naphtha and jet fuel oil stocks rose both by 300,000 b to stand at 1.3m b and 2.3m b, respectively. Meanwhile, gasoline stocks saw a minor decline and ended the month of November at 5.1m b, almost the same level as November 2011. The stock draw was driven by higher exports outpacing the arrivals in ARA. 

Table A: World crude oil demand/supply balance															m b/d
World demand	2007	2008	2009	2010	2011	1Q12	2Q12	3Q12	4Q12	2012	1Q13	2Q13	3Q13	4Q13	2013
<b>OECD</b>	50.1	48.4	46.3	46.9	46.5	46.3	45.6	46.0	46.6	46.1	46.3	45.1	45.8	46.4	45.9
North America	25.8	24.5	23.7	24.1	24.1	23.5	23.8	23.9	24.0	23.8	23.6	23.7	24.0	24.1	23.9
Western Europe	15.6	15.5	14.7	14.7	14.3	13.7	13.8	13.8	13.9	13.8	13.6	13.5	13.6	13.6	13.6
Pacific	8.7	8.3	8.0	8.1	8.1	9.1	8.0	8.2	8.7	8.5	9.1	7.9	8.3	8.7	8.5
<b>Developing countries</b>	24.2	25.0	25.6	26.5	27.2	27.3	27.8	28.5	28.1	27.9	27.9	28.3	29.1	28.6	28.5
<b>FSU</b>	4.0	4.1	4.0	4.2	4.3	4.2	4.1	4.5	4.7	4.4	4.3	4.2	4.6	4.8	4.5
<b>Other Europe</b>	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.7	0.7
<b>China</b>	7.6	8.0	8.3	9.0	9.4	9.5	9.9	9.5	10.0	9.7	9.8	10.2	9.9	10.3	10.1
<b>(a) Total world demand</b>	<b>86.6</b>	<b>86.1</b>	<b>84.8</b>	<b>87.1</b>	<b>88.0</b>	<b>88.0</b>	<b>88.0</b>	<b>89.2</b>	<b>90.1</b>	<b>88.8</b>	<b>88.9</b>	<b>88.5</b>	<b>90.0</b>	<b>90.8</b>	<b>89.6</b>
<b>Non-OPEC supply</b>															
<b>OECD</b>	20.0	19.6	19.8	20.0	20.2	21.1	20.9	20.7	21.4	21.0	21.5	21.4	21.4	21.7	21.5
North America	14.3	14.0	14.4	15.0	15.5	16.5	16.4	16.5	17.1	16.6	17.1	17.2	17.2	17.4	17.2
Western Europe	5.2	4.9	4.7	4.4	4.1	4.1	3.9	3.5	3.6	3.8	3.7	3.6	3.5	3.7	3.6
Pacific	0.6	0.6	0.6	0.7	0.6	0.5	0.5	0.7	0.7	0.6	0.7	0.7	0.7	0.7	0.7
<b>Developing countries</b>	11.9	12.2	12.4	12.7	12.6	12.3	12.1	12.1	12.2	12.2	12.1	12.2	12.5	12.6	12.4
<b>FSU</b>	12.5	12.6	13.0	13.2	13.2	13.4	13.2	13.2	13.4	13.3	13.4	13.3	13.4	13.5	13.4
<b>Other Europe</b>	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
<b>China</b>	3.8	3.8	3.8	4.1	4.1	4.2	4.2	4.2	4.3	4.2	4.3	4.2	4.2	4.3	4.3
<b>Processing gains</b>	2.0	2.0	2.0	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
<b>Total non-OPEC supply</b>	50.4	50.4	51.1	52.3	52.4	53.2	52.7	52.5	53.6	53.0	53.6	53.6	53.9	54.5	53.9
<b>OPEC NGLs and non-conventionals</b>	3.9	4.1	4.3	5.0	5.4	5.6	5.7	5.8	5.9	5.7	5.9	6.0	6.0	6.0	6.0
<b>(b) Total non-OPEC supply and OPEC NGLs</b>	<b>54.4</b>	<b>54.5</b>	<b>55.5</b>	<b>57.3</b>	<b>57.8</b>	<b>58.8</b>	<b>58.3</b>	<b>58.3</b>	<b>59.5</b>	<b>58.7</b>	<b>59.6</b>	<b>59.6</b>	<b>59.9</b>	<b>60.5</b>	<b>59.9</b>
<b>OPEC crude supply and balance</b>															
<b>OPEC crude oil production<sup>1</sup></b>	30.2	31.3	28.8	29.2	29.8	31.2	31.5	31.2	30.7	31.2					
Total supply	84.6	85.8	84.2	86.6	87.6	90.0	89.8	89.5	90.2	89.9					
<b>Balance<sup>2</sup></b>	-2.0	-0.3	-0.5	-0.6	-0.4	2.0	1.9	0.4	0.2	1.1					
<b>Stocks</b>															
<b>OECD closing stock level<sup>m b</sup></b>															
Commercial	2,578	2,701	2,664	2,693	2,621	2,664	2,701	2,738							
SPR	1,528	1,530	1,568	1,565	1,536	1,536	1,539	1,542							
Total	4,106	4,231	4,232	4,257	4,158	4,200	4,240	4,280							
Oil-on-water	948	969	919	871	825	787	812	797							
<b>Days of forward consumption in OECD</b>															
Commercial onland stocks	53	58	57	58	57	58	59	59							
SPR	32	33	33	34	33	34	33	33							
<b>Total</b>	85	91	90	92	90	92	92	92							
<b>Memo items</b>															
FSU net exports	8.5	8.5	9.0	9.1	8.9	9.1	9.1	8.7	8.7	8.9	9.1	9.2	8.8	8.7	8.9
<b>[(a) – (b)]</b>	32.2	31.6	29.3	29.8	30.2	29.2	29.6	30.9	30.5	30.1	29.3	28.9	30.1	30.3	29.6

1. Secondary sources.

2. Stock change and miscellaneous.

Note: Totals may not add up due to independent rounding.

**Table A** above, prepared by the Secretariat's Petroleum Studies Department, shows OPEC's current forecast of world supply and demand for oil and natural gas liquids.

The monthly evolution of spot prices for selected OPEC and non-OPEC crudes is presented in **Tables 1 and 2** on page 73, while **Graphs 1 and 2** on page 74 show the evolution on a weekly basis. **Tables 3 to 8** and the corresponding graphs on pages 75–76 show the evolution of monthly average spot prices for important products in six major markets. (Data for Tables 1–8 is provided courtesy of Platt's Energy Services.)

**Table 1: OPEC Reference Basket crude oil prices**

\$/b

Crude/Member Country	2011		2012										Weeks 48-52/12 (week ending)					
	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Nov 30	Dec 7	Dec 14	Dec 21	Dec 28
Arab Light – Saudi Arabia	107.96	112.82	118.01	123.43	118.94	108.48	94.51	99.90	109.94	111.32	109.09	108.47	108.35	109.67	108.64	107.16	108.27	109.22
Basrah Light – Iraq	106.06	110.21	116.21	121.96	116.26	105.94	92.02	98.16	108.68	109.39	106.66	105.45	105.04	106.53	105.22	104.01	105.15	105.62
Bonny Light – Nigeria	110.71	113.08	122.36	127.98	122.36	112.87	97.19	104.24	114.63	114.06	113.31	110.91	111.19	111.51	110.98	110.76	111.98	110.85
Es Sider – SP Libyan AJ	108.66	111.28	120.26	126.03	120.71	111.27	96.04	102.89	112.18	112.16	111.41	109.01	109.29	109.61	109.08	108.86	110.08	108.95
Girassol – Angola	109.07	113.01	120.51	126.30	121.32	111.20	96.44	103.01	113.08	113.14	111.00	108.91	108.92	110.08	108.83	108.21	109.46	109.14
Iran Heavy – IR Iran	106.83	111.77	116.51	122.46	117.78	107.06	93.09	98.81	109.36	110.99	108.11	106.80	106.56	107.96	106.86	105.36	106.49	107.46
Kuwait Export – Kuwait	107.06	112.00	116.79	122.32	117.53	107.55	93.32	98.75	108.91	110.02	107.56	106.82	106.19	108.04	106.59	104.85	106.12	107.08
Marine – Qatar	107.36	110.65	116.99	122.80	117.39	107.79	94.86	99.47	108.57	111.17	108.63	107.12	106.25	108.40	106.70	104.75	106.24	107.21
Merey* – Venezuela	101.44	107.77	109.26	112.07	108.62	99.97	87.52	91.86	99.89	101.84	97.50	93.28	91.68	93.96	91.70	90.64	91.84	92.60
Murban – UAE	109.49	113.03	119.31	125.61	120.44	110.58	96.76	101.48	110.88	113.57	111.36	109.69	108.90	111.04	109.41	107.49	108.90	109.73
Oriente – Ecuador	100.99	104.11	112.44	118.26	113.86	102.25	89.22	94.13	102.21	102.81	98.74	97.15	98.68	98.64	98.27	97.01	98.74	100.45
Saharan Blend – Algeria	108.56	111.43	120.36	126.13	120.81	110.27	94.69	99.64	112.23	112.06	111.41	109.36	109.89	109.96	109.68	109.46	110.68	109.55
<b>OPEC Reference Basket</b>	<b>107.34</b>	<b>111.76</b>	<b>117.48</b>	<b>122.97</b>	<b>118.18</b>	<b>108.07</b>	<b>93.98</b>	<b>99.55</b>	<b>109.52</b>	<b>110.67</b>	<b>108.36</b>	<b>106.86</b>	<b>106.55</b>	<b>107.92</b>	<b>106.74</b>	<b>105.48</b>	<b>106.68</b>	<b>107.18</b>

**Table 2: Selected OPEC and non-OPEC spot crude oil prices**

\$/b

Crude/Member Country	2011		2012										Weeks 48-52/12 (week ending)					
	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Nov 30	Dec 7	Dec 14	Dec 21	Dec 28
Minas – Indonesia <sup>1</sup>	114.35	120.41	126.31	133.85	130.15	120.21	104.83	106.62	115.46	113.06	111.47	108.26	108.96	109.32	109.14	107.35	109.18	110.10
Arab Heavy – Saudi Arabia	106.61	111.73	116.21	121.84	116.62	106.89	92.67	98.24	108.47	109.76	106.91	106.13	104.79	107.37	105.30	103.33	104.74	105.71
Brega – SP Libyan AJ	109.76	111.18	119.86	125.73	120.11	110.57	95.49	102.69	111.78	111.76	110.89	108.61	108.99	109.21	108.78	108.56	109.78	108.65
Brent – North Sea	107.86	110.58	119.56	125.33	119.71	110.27	95.19	102.59	113.48	112.86	111.61	109.11	109.29	109.71	109.08	108.86	110.08	108.95
Dubai – UAE	106.43	109.86	116.17	122.47	117.30	107.71	94.44	99.15	108.62	111.22	108.80	107.22	106.34	108.47	106.85	104.87	106.29	107.26
Ekofisk – North Sea	109.01	112.25	121.02	126.48	120.59	111.24	95.96	103.49	114.05	113.29	112.49	110.46	110.66	111.43	110.13	110.21	111.39	110.97
Iran Light – IR Iran	107.06	109.76	117.05	122.83	117.35	107.69	93.35	99.97	111.30	112.24	109.60	107.77	107.61	109.25	107.86	106.78	107.97	107.91
Isthmus – Mexico	110.27	110.02	114.42	120.46	116.04	107.20	93.16	99.63	107.22	107.90	104.39	99.37	99.03	100.69	98.76	97.81	99.33	100.18
Oman – Oman	107.28	110.91	117.15	122.92	117.44	107.76	94.49	99.43	108.92	111.31	108.83	107.23	106.34	108.47	106.85	104.88	106.29	107.26
Suez Mix – Egypt	104.15	106.91	115.60	119.34	114.58	106.21	90.46	99.66	110.23	109.08	107.42	105.38	105.35	106.30	105.19	104.89	106.02	105.29
Tia Juana Light <sup>2</sup> – Venez.	108.28	108.04	112.36	118.41	114.07	105.16	91.48	98.04	105.61	105.85	102.20	97.28	96.95	98.57	96.69	95.75	97.24	98.07
Urals – Russia	107.31	109.91	118.50	122.41	117.69	109.21	93.81	102.63	113.18	111.92	110.26	108.23	108.21	109.13	108.00	107.74	109.02	108.05
WTI – North America	98.58	100.30	102.35	106.31	103.35	94.45	82.33	87.79	94.08	94.55	89.47	86.59	88.23	<b>87.69</b>	<b>87.52</b>	<b>86.23</b>	<b>88.54</b>	<b>90.37</b>

Note: As per the decision of the 109<sup>th</sup> ECB (held in February 2008), the OPEC Reference Basket (ORB) has been recalculated including the Ecuadorian crude Oriente retroactive as of October 19, 2007. As per the decision of the 108<sup>th</sup> ECB, the ORB has been recalculated including the Angolan crude Girassol, retroactive January 2007. As of January 2006, monthly averages are based on daily quotations (as approved by the 105<sup>th</sup> Meeting of the Economic Commission Board). As of June 16, 2005 (ie 3W June), the ORB has been calculated according to the new methodology as agreed by the 136<sup>th</sup> (Extraordinary) Meeting of the Conference. As of January 2009, the ORB excludes Minas (Indonesia).

\* Upon the request of Venezuela, and as per the approval of the 111<sup>th</sup> ECB, BCF-17 has been replaced by Merey as of January 2009. The ORB has been revised as of this date.

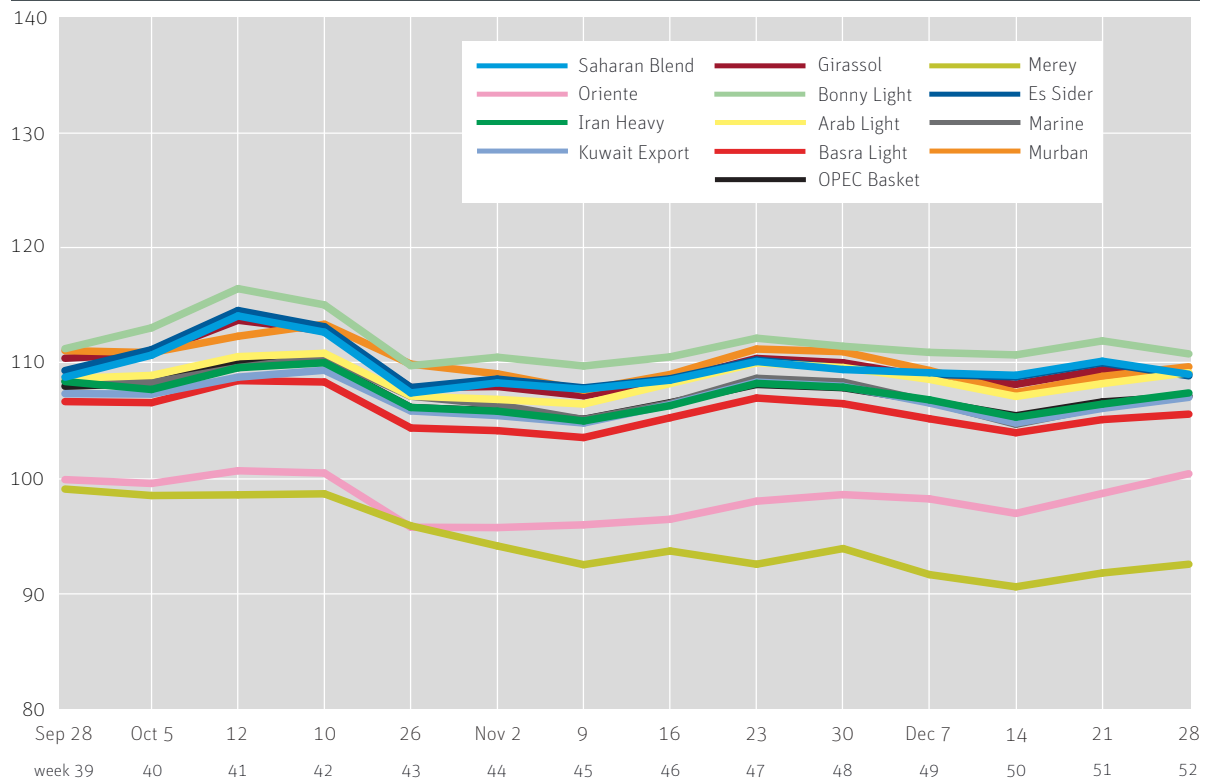
1. Indonesia suspended its OPEC Membership on December 31, 2008.

2. Tia Juana Light spot price = (TJL netback/Isthmus netback) x Isthmus spot price.

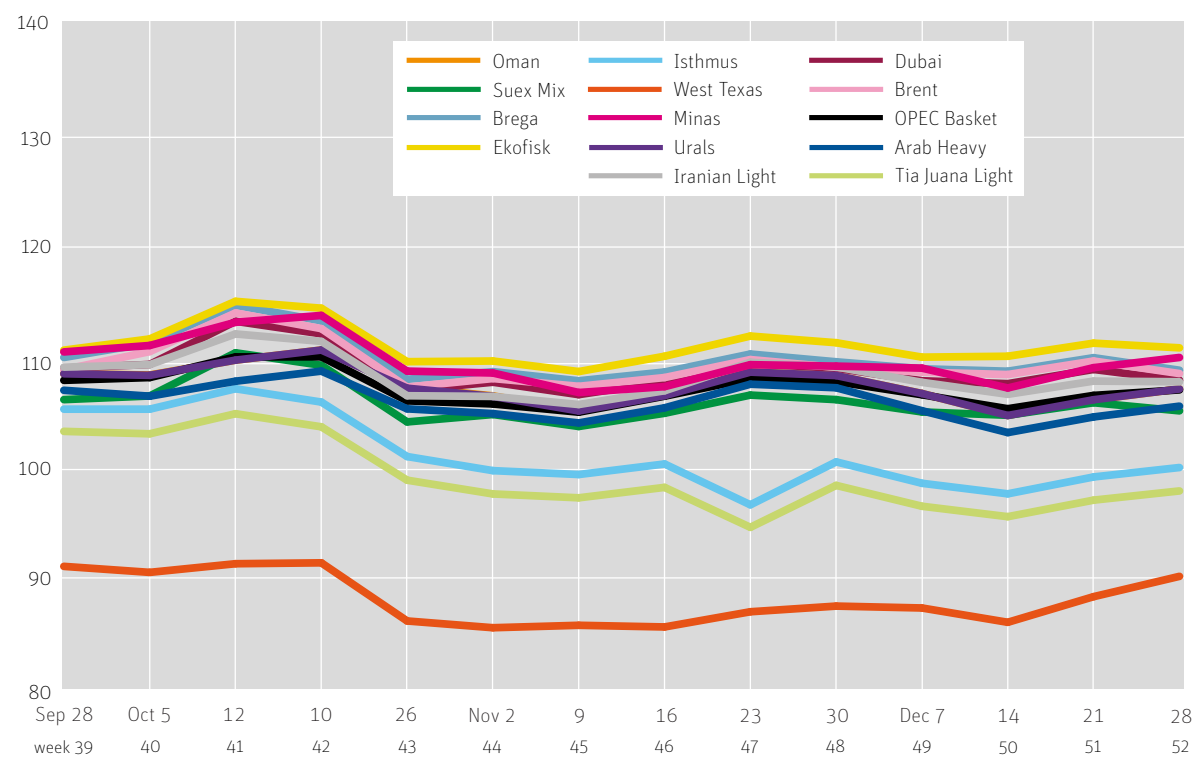
Brent for dated cargoes; Urals cif Mediterranean. All others fob loading port.

Sources: The netback values for TJL price calculations are taken from RVM; Platt's; Secretariat's assessments.

Graph 1: Evolution of the OPEC Reference Basket crudes, 2012 \$/b



Graph 2: Evolution of spot prices for selected non-OPEC crudes, 2012 \$/b

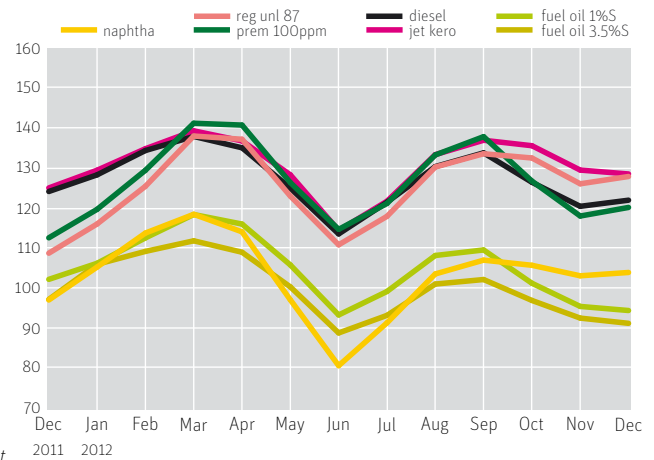


Note: As per the decision of the 109<sup>th</sup> ECB (held in February 2008), the OPEC Reference Basket (ORB) has been recalculated including the Ecuadorian crude Oriente retroactive as of October 19, 2007. As per the decision of the 108<sup>th</sup> ECB, the basket has been recalculated including the Angolan crude Girassol, retroactive January 2007. As of January 2006, monthly averages are based on daily quotations (as approved by the 105<sup>th</sup> Meeting of the Economic Commission Board). As of June 16, 2005 (ie 3W June), the ORB has been calculated according to the new methodology as agreed by the 136<sup>th</sup> (Extraordinary) Meeting of the Conference. As of January 2009, the ORB excludes Minas (Indonesia). Upon the request of Venezuela, and as per the approval of the 111<sup>th</sup> ECB, BCF-17 has been replaced by Mery as of January 2009. The ORB has been revised as of this date.

**Table and Graph 3: North European market – spot barges, fob Rotterdam**

\$/b

		naphtha	regular gasoline unleaded	premium gasoline 50ppm	diesel ultra light	jet kero	fuel oil 1 per cent S	fuel oil 3.5 per cent S
<b>2011</b>	December	96.97	108.63	112.46	124.00	124.89	102.11	97.12
<b>2012</b>	January	105.18	115.91	119.56	128.15	129.31	106.12	105.87
	February	113.65	125.30	129.29	134.21	134.66	112.44	109.08
	March	118.32	137.82	141.01	137.72	139.12	118.27	111.72
	April	113.95	137.02	140.55	134.89	136.61	115.89	108.87
	May	97.01	122.85	126.22	124.84	128.15	105.70	100.23
	June	80.61	110.72	114.57	113.43	114.30	93.24	88.76
	July	91.27	117.81	121.02	121.32	121.58	99.09	93.14
	August	103.46	130.10	133.11	130.21	133.19	108.06	100.94
	September	106.90	133.41	137.67	133.63	136.77	109.44	102.07
	October	105.62	132.35	126.60	126.30	135.41	101.15	96.86
	November	103.00	125.92	117.89	120.31	129.34	95.37	92.46
	December	103.83	127.74	120.03	121.84	128.37	94.35	91.16

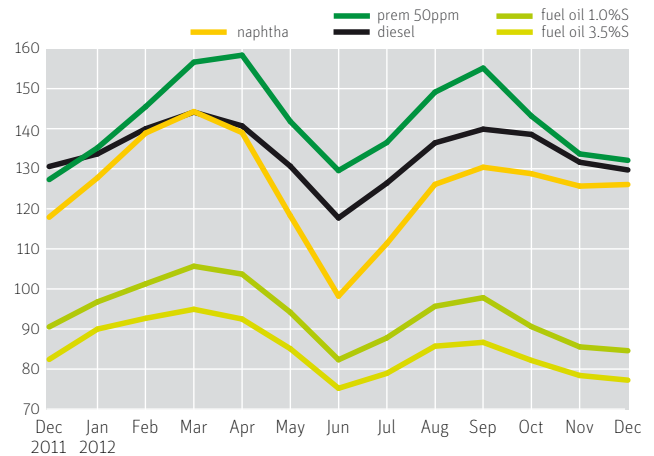


Note: Prices of premium gasoline and diesel from January 1, 2008, are with 10 ppm sulphur content.

**Table and Graph 4: South European market – spot cargoes, fob Italy**

\$/b

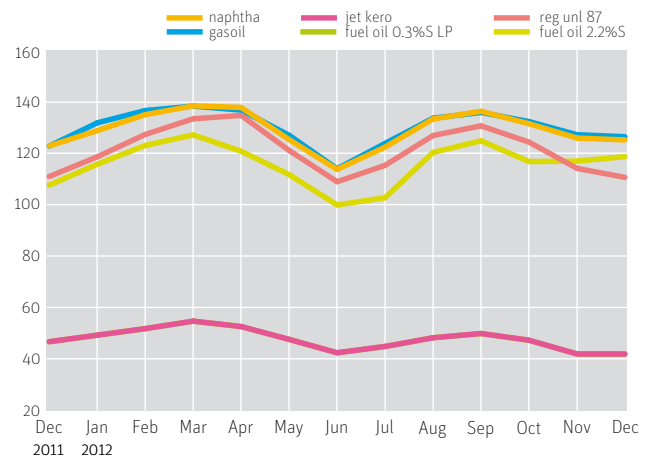
		naphtha	premium gasoline 50ppm	diesel ultra light	fuel oil 1 per cent S	fuel oil 3.5 per cent S
<b>2011</b>	December	117.90	126.62	130.56	90.53	82.41
<b>2012</b>	January	127.73	134.52	133.70	96.77	89.97
	February	138.90	144.80	139.98	101.27	92.67
	March	144.28	155.92	144.14	105.67	94.92
	April	139.02	157.66	140.70	103.70	92.49
	May	118.29	141.12	130.64	94.17	85.08
	June	98.22	128.86	117.72	82.32	75.20
	July	111.30	135.85	126.39	87.78	78.92
	August	126.09	148.43	136.46	95.66	85.71
	September	130.38	154.44	139.88	97.82	86.67
	October	128.77	142.47	138.57	90.60	82.16
	November	125.67	133.02	131.63	85.54	78.40
	December	126.07	131.41	129.70	84.58	77.23



**Table and Graph 5: US East Coast market – spot cargoes, New York**

\$/b, duties and fees included

		naphtha	regular gasoline unleaded 87	gasoil	jet kero	fuel oil 0.3 per cent S	fuel oil 2.2 per cent S
<b>2011</b>	December	107.57	110.93	122.84	122.77	46.65	40.45
<b>2012</b>	January	115.69	118.60	128.78	131.82	49.19	43.33
	February	123.01	127.29	135.00	136.61	51.74	46.16
	March	127.14	133.40	138.44	138.34	54.65	47.90
	April	120.76	134.72	137.81	136.77	52.55	46.35
	May	111.69	121.08	125.31	127.00	47.54	42.40
	June	99.86	108.91	113.70	113.95	42.35	36.78
	July	102.69	115.26	122.36	123.81	44.79	39.35
	August	120.32	126.88	133.35	133.64	48.18	42.32
	September	124.84	130.65	136.32	135.87	49.84	45.78
	October	116.75	124.33	131.48	132.32	47.23	40.54
	November	116.92	114.12	125.90	127.22	41.88	35.24
	December	118.67	110.59	125.17	126.42	41.87	35.23

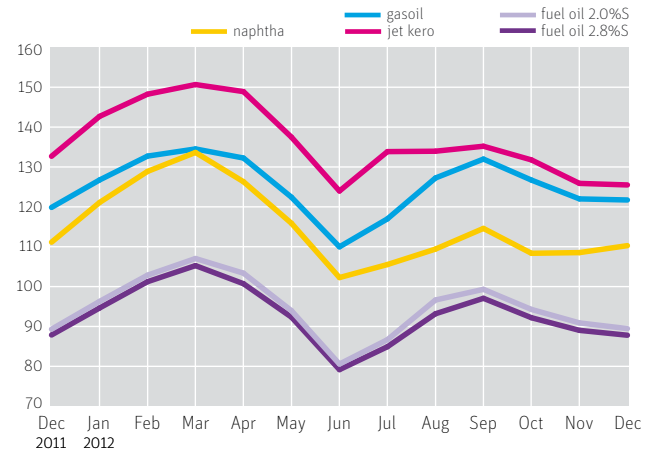


Source: Platts. Prices are average of available days.

**Table and Graph 6: Caribbean market – spot cargoes, fob**

\$/b

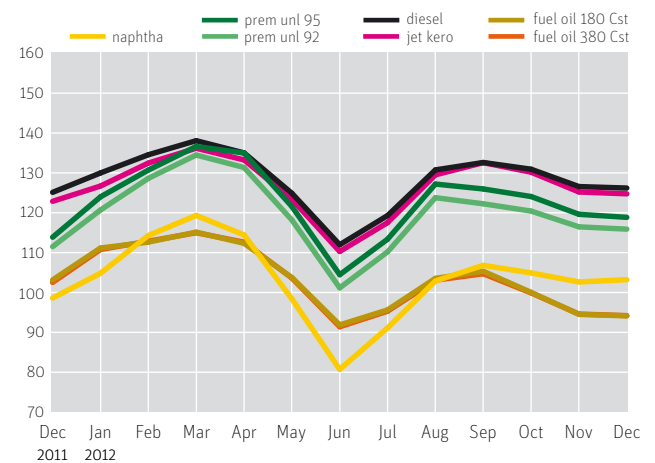
	naphtha	gasoil	jet kero	fuel oil 2 per cent S	fuel oil 2.8 per cent S
<b>2011</b> December	111.13	119.85	132.68	89.31	87.86
<b>2012</b> January	121.08	126.73	142.68	96.27	94.62
February	128.88	132.72	148.25	102.86	101.22
March	133.64	134.52	150.67	107.04	105.26
April	126.30	132.24	148.90	103.36	100.72
May	115.87	122.41	137.47	93.95	92.33
June	102.26	109.97	123.97	80.57	79.17
July	105.53	116.99	133.85	86.69	84.92
August	109.40	127.23	133.95	96.63	93.18
September	114.59	131.98	135.20	99.31	97.06
October	108.35	126.71	131.77	94.27	92.19
November	108.52	121.99	125.88	90.89	89.02
December	110.27	121.72	125.49	89.46	87.80



**Table and Graph 7: Singapore market – spot cargoes, fob**

\$/b

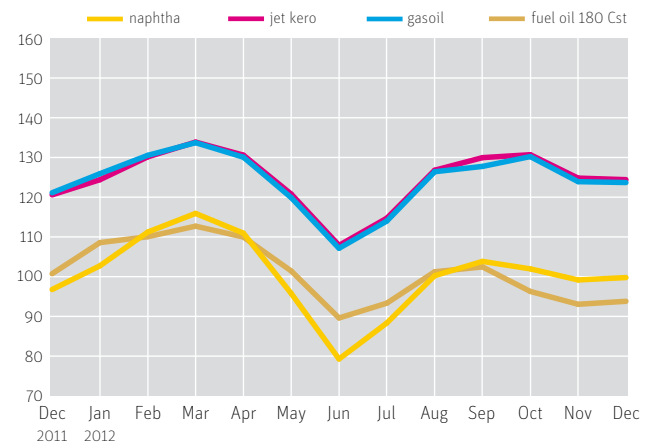
	naphtha	premium gasoline unl 95	premium gasoline unl 92	diesel ultra light	jet kero	fuel oil 180 Cst	fuel oil 380 Cst
<b>2011</b> December	98.61	113.86	111.50	125.12	122.87	103.16	102.52
<b>2012</b> January	104.82	123.99	120.69	129.98	126.70	111.16	110.79
February	114.29	130.70	128.63	134.55	132.46	112.64	112.87
March	119.33	136.64	134.48	138.08	136.18	115.14	114.99
April	114.44	134.98	131.36	135.02	133.26	112.34	112.63
May	98.40	121.57	118.19	124.89	123.38	103.75	103.62
June	80.72	104.46	101.16	111.98	110.29	91.87	91.40
July	91.13	113.37	110.19	119.30	117.52	95.63	95.30
August	102.89	127.20	123.78	130.75	129.51	103.55	103.09
September	106.81	125.97	122.25	132.61	132.57	105.32	104.70
October	104.91	124.07	120.42	130.92	130.17	100.04	99.89
November	102.64	119.61	116.47	126.57	125.21	94.51	94.59
December	103.21	118.85	115.89	126.20	124.75	94.14	94.20



**Table and Graph 8: Middle East Gulf market – spot cargoes, fob**

\$/b

	naphtha	gasoil	jet kero	fuel oil 180 Cst
<b>2011</b> December	96.76	121.12	120.59	100.74
<b>2012</b> January	102.73	125.92	124.40	108.57
February	111.22	130.54	130.15	110.05
March	115.92	133.72	133.87	112.71
April	110.95	130.07	130.59	109.97
May	95.77	119.89	120.79	101.43
June	79.27	107.14	107.88	89.60
July	88.34	114.00	114.72	93.33
August	100.24	126.41	126.79	101.23
September	103.84	127.75	129.96	102.45
October	101.96	130.22	130.70	96.28
November	99.17	123.91	124.81	93.05
December	99.77	123.69	124.42	93.80



Source: Platts. Prices are average of available days.

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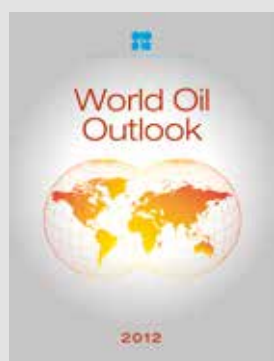


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