

OPEC bulletin

2/12



El-Badri at Chatham House

Europe hit by Arctic weather



Petroleum: Fuelling Prosperity

Supporting Sustainability

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Contact:
+44 7833 245 507
monique@moniquequant.com

MARKET STABILITY

BUILDING FOR THE FUTURE TODAY

Commentary

If there is one thing that is as important as stability in today's oil market, it is stability in tomorrow's oil market.

OPEC has known this for years. So have other responsible stakeholders in the energy industry.

We also know that future stability is something that needs to be worked on today. Upfront investment in new capacity, for example, can be huge and the lead-times long. And that is before we even start thinking about a net return on the investment. Periods of five-to-ten years and sometimes much longer spring to mind here. Therefore, we need to plan well ahead to provide an appropriate structural base for future market stability.

But there is more to it than that. Producers need to have a clear idea at all times of the rate at which oil will be required from their reserves for the world market, since this constitutes a major source of revenue that can be invested in developing and expanding their economies — indeed, for some countries, petroleum sales provide well over 90 per cent of total export revenue. Consumers, for their part, need to be assured of steady, secure supplies of oil at all times, in order to support their economic welfare and growth. This reminds us again of the closed loop between security of demand and security of supply. Whether producer or consumer, critical choices must be made about investment, and improving our understanding of today's market and its likely course in the years ahead will help guide all of us in our decision-making.

What we are talking about here is information, analysis, transparency, cooperation, dialogue.

Recent years have seen much progress in these important areas. The International Energy Forum stands out as a specialist body primed for producer-consumer dialogue at the highest ministerial levels, and it has already achieved much success, particularly in tandem with OPEC and the International Energy Agency (IEA). Separate dialogues abound too at many different levels, and the century so far has witnessed some definitive steps forward in this respect between OPEC and, for example, the European Union, China, Russia, the IEA, the International Monetary Fund, the World Bank and non-OPEC oil-producing countries. The industry at large has benefited from all this.

What is more, dialogue is an ongoing process, and, to

illustrate this, let us look at a series of activities involving OPEC on the issue of investment that has taken place at the start of this year. Five important events in five weeks.

January 23 saw the Second IEF/OPEC/IEA Symposium on Energy Outlooks in Riyadh, which provided a chance to compare and discuss the findings from the latest annual issues of OPEC's *World Oil Outlook* and the IEA's *World Energy Outlook*, with horizons extending into the second quarter of the century. Complementing this five weeks later is a planned workshop on the creation of an Asian Energy Outlook that is due to be hosted by OPEC in Vienna on February 28 on behalf of the Asian Ministerial Energy Roundtable.

On January 30, OPEC Secretary General, Abdalla Salem El-Badri, addressed the Middle East and North Africa 2012 Energy Conference at Chatham House, in London, where, in the second half of his speech, he focused on the issues of investment, technology and cooperation. At one point, he referred to a topic — *The growing use of enhanced oil recovery techniques* — that itself provided the theme of another gathering a week later in Kuwait City, on February 7–8, the *IEA-OPEC Carbon Dioxide-Enhanced Oil Recovery Kuwait workshop*.

Common to these four meetings — and, indeed, essential to any discussion about investment — was the unyielding need for accurate, timely data, and this subject itself was examined in depth at the 11th OPEC Annual Statistical Meeting at the Secretariat on January 31–February 1.

Meetings such as these are a frequent occurrence for OPEC and its Member Countries, whether as host or participant, as they seek to provide the solid base from which the industry will benefit years and decades ahead.

Oil market stability does not just happen by itself, especially in an era when the financial sector has such a big influence on prices, fuelling so much volatility. It needs to be worked on at all times in the areas where dialogue and sound planning can make a difference — such as addressing the crucial balance between demand and supply in a transparent, predictable and sustainable way. And the industry as a whole shares the challenge of building for the future today. ■■

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Cover
This month's cover reflects the Arctic weather that hit Europe in January/February, when temperatures fell to just under -40°C , spurring fuel demand (see Market Spotlight on p4). Cover image courtesy Shutterstock.

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Publishers

OPEC
Organization of the Petroleum Exporting Countries
Helferstorferstraße 17
1010 Vienna, Austria
Telephone: +43 1 211 12/0
Telefax: +43 1 216 4320
Contact: The Editor-in-Chief, OPEC Bulletin
Fax: +43 1 211 12/5081
E-mail: prid@opec.org

Web site: www.opec.org

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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; SP Libyan AJ (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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The OPEC Bulletin welcomes original contributions on the technical, financial and environmental aspects of all stages of the energy industry, research reports and project descriptions with supporting illustrations and photographs.

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Editorial staff

Editor-in-Chief/Editorial Coordinator

Ulunma Angela Agoawike

Editor

Jerry Haylins

Associate Editors

Keith Aylward-Marchant, James Griffin,

Alvino-Mario Fantini, Steve Hughes

Production

Diana Lavnick

Design & Layout

Elfi Plakolm

Photographs (unless otherwise credited)

Diana Golpashin and Wolfgang Hammer

Distribution

Mahid Al-Saigh

Indexed and abstracted in PAIS International

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Demand for fuel soars as Arctic weather grips Europe

The extreme weather led to Russia's Gazprom cutting gas supplies to several European

Demand for fuel, including heating oil and natural gas, soared in early February as Europe was gripped by a severe cold spell that left the region looking more like Antarctica.

Several European countries reported reduced deliveries of Russian gas as the extreme weather sparked a surge in demand. And refining margins also widened as crude oil prices strengthened by around \$7/barrel in just under two weeks.

In some of the worst weather to hit the region in the month of February in 26 years, towns and villages in much of Eastern Europe struggled to cope with heavy snowfall, temperatures approaching minus 40° Celsius and icy conditions that left an estimated 600 people dead.

Ukraine, Poland, Russia, Bulgaria, Romania, Belarus and Latvia were among the countries most affected by the big freeze.

In Serbia, in just one week, the country set six historical records, both for the consumption and production of electricity to help cope with the cold.

Ironically, Europe had enjoyed a relatively mild winter up until the end of January. The Arctic weather, swinging in from the east, brought that to an abrupt end.

And as temperatures plummeted, the icy weather stretched well into the south with countries, including Italy, and even Algeria, in northern Africa, reporting heavy snowfall.

At least ten centimeters of precipitation fell in the Algerian capital, Algiers, in early February. The snowfall, the first in the city in eight years and the heaviest in decades, brought the Mediterranean port to a standstill.

Meanwhile, the Italian capital, Rome, also ground to a halt as drivers abandoned their cars in the city's heaviest snowfall in 26 years.

The United Nations World Meteorological Organization blamed the inclement weather on what it called the "negative Arctic oscillation"

— a phenomenon that results in extreme cold conditions in Europe and relatively warmer weather in the Arctic.

Rivers, lakes, beaches and even seas were iced over by the Siberian freeze.

For the first time in decades, parts of the Black Sea froze over near its shores leading to the Kerch Strait, which links the Azov Sea and the Black Sea, being closed to navigation.

And at least four nations — Bulgaria, Croatia, Romania and Serbia — suspended shipping on the Danube River because of the vast amount of ice flows on the waterway. At one point, they reported that up to 90 per cent of the river's surface was covered with floating ice.

The conditions made it extremely difficult to traverse what is Europe's main commercial waterway, which winds 2,860 km from Germany through ten European countries and is crucial for the region's transport, power, irrigation, industry and fishing.

In addition, the weather led to more than 2,000 industrial concerns suspending operations to limit the strain on coal-fired and hydropower generating plants, which were being affected by the build-up of ice.

All of this had a sudden effect on energy demand with the call for extra gas supplies and heating oil.

Russia cut gas exports to Europe as demand reached all-time highs, forcing countries like Italy to increase imports from Algeria and resort to gas in storage.

The Executive Commission of the European Union (EU) reported that gas supplies to Italy via the Austrian border were down by ten per cent, while Poland reported



Parts of the Danube River resembled an ice-rink as temperatures plummeted.



Even Algeria, in North Africa, felt the cold front, experiencing heavy snowfall.

a seven per cent decline. Slovakia indicated a 30 per cent drop in deliveries.

Russian gas export giant, Gazprom, said it had increased gas supplies to European countries to the maximum to try and cover the shortfall.

Fortunately, utilities in Germany, the United Kingdom, Austria, France and some other countries had ample gas supplies in storage, built up as a result of the mild temperatures seen during most of the winter months.

In recent years, the European Union has also taken measures to ensure increased levels of storage and improved infrastructure so available supplies can be shared between member states in times of emergency and high demand.

Figures showed that gas flows from Russia fell to around 82 million cubic metres, well below the 108.9m cu m normally requested. Austria, Italy, Slovakia and Poland announced that they had received reduced volumes.

And gas prices in Europe's biggest gas market, the UK, which does not depend on Russian gas, rose to levels not seen since January 2009.

Gazprom fully restored gas supplies contracted by Bulgaria, Slovakia, Austria, Hungary, Poland and Greece by the end of the first week of February and soon after that increased deliveries to Romania, Germany and Italy, although there were still some shortages reported.

The EU's Energy Commissioner, Guenther Oettinger, initially announced during the bad weather that there was no reason for concern over gas shortages, but later expressed concern that the cold weather disruption to European supplies underscored the need for streamlined regional energy links.

He was quoted as telling a Council of Energy Ministers'

Meeting in Brussels that the EU had made progress in breaking down barriers to energy supply across the 27 member bloc, but pointed out that some national divisions persisted.

Such divides, he said, had the potential to aggravate the impact of any disruption, as seen during the sudden cold snap, when energy demand spiked and Russia reduced its gas supplies.

"When it comes to transmission networks, particularly for electricity and gas, we are still living in a world of 19th century principalities," maintained Oettinger.

"After two-and-a-half weeks of quite cold weather, we have come to the brink of power outages. So, I am pleading with you that we should get together as a team."

Security of supply could be improved by better energy connections across borders, which would enable available supplies to flow to where they were most needed in such situations, the meeting heard.

The EU energy ministers were debating how to revamp the region's energy infrastructure with the help of €9.1 billion (\$12.03bn) allocated in the 2014–20 EU budget for projects of cross-border significance. It is the first time energy infrastructure is being earmarked for money in the budget.

As for crude oil prices during the deep freeze, the OPEC Reference Basket saw gains over eight successive trading days at the height of the cold snap. On February 1, the Basket stood at \$110.62/b. By February 13, it had risen to \$117.19/b.

In fact, such was the strength of the Basket, in the 21 trading sessions from January 25, the onset of the bad weather, when it was at \$110.70/b, to February 22, when it stood at \$120.88/b, the Basket only fell on two occasions.

And looking at futures trading, the price of dated North Sea Brent crude rose from \$111.93/b on February 1 to \$119.35/b 12 days later. On February 22, it had continued to rise to stand at \$124.01/b.

Over the same period, the US benchmark crude, West Texas Intermediate (WTI), increased from \$97.59/b to stand at \$100.68/b on February 13. On February 22, it was quoted at \$105.94/b.

According to traders, prices were mainly being supported by geopolitical tensions in the Middle East and the ongoing Euro-zone debt crisis, but the cold weather and subsequent surge in oil product demand had also contributed to market sentiment.



OPEC Secretary General addresses MENA Conference in London

El-Badri comfortable with \$100/b oil, but concerned about price volatility

By Sally Jones



Chatham House

OPEC Secretary General, Abdalla Salem El-Badri, recently spent a few days in London, primarily to attend the annual energy conference at Chatham House, which took place on January 30–31, but also to meet United Kingdom officials, industry executives and members of the international media.

At Chatham House — the London based Royal Institute of International Affairs — El-Badri gave his customary

keynote speech on the Middle East and North Africa (MENA) energy industry.

This year's two-day conference had as its theme, 'Investing for the future in turbulent times', and again highlighted the growing importance of the oil and gas resources of the MENA countries, eight of which are OPEC Members.

The region is considered crucial to satisfying the

world's energy demand in the years ahead, but many of the MENA states face the challenge of rapidly rising domestic energy consumption and demographic and budgetary pressure to generate economic growth.

And as pre-conference comments on the Chatham House website made clear, today the MENA region is facing unprecedented upheaval in having to respond to and deal with popular unrest.

"Established political dynamics are changing and rebalancing at a domestic, regional and international level," it stated.

It asked what the implications are of the so-called 'Arab Spring' for the future of global energy supplies and how relationships between all those involved in the energy sector — governments, national oil companies, international oil companies and service companies — will change as a result of developments.

The 2012 MENA conference, it added, aimed to offer new perspectives on the complex political and social issues confronting the region and was looking to provide a unique platform for policymakers, governments, commentators and key industry figures to assess the current situation and ask what lies ahead.

In his address to the conference, El-Badri issued an assurance that OPEC Member Countries would continue to strive to meet consumer demand at all times, while ensuring oil market stability.

In stressing the importance of the MENA region as a strategic trading partner and key source of oil for the rest of the world, he also pointed out that coordinated efforts were needed to make sure that global supply remained balanced, stating that "constructive actions can achieve great things."

The OPEC Secretary General was one of three keynote speakers at the conference. The other two were Adnan Al-Janabi, Chairman of the Iraqi parliament's Oil and Energy Committee, and Ali I Naimi, Minister of Petroleum and Mineral Resources of Saudi Arabia.

El-Badri had a busy schedule of meetings arranged on the sidelines of the Chatham House conference.

In discussions with the UK's Minister of State for the Department of Energy and Climate Change, Charles Hendry, he spoke about the latest geopolitical events surrounding the international oil industry.

He alerted the UK Minister to the fact that crude oil prices would inevitably be volatile as the market adjusted to the European Union's embargo on Iranian oil imports. El-Badri also reiterated OPEC's view that \$100/barrel oil was a fair price for both producers and consumers.

In a series of one-on-one interviews with leading business and energy media, the OPEC Secretary General again highlighted that oil markets would witness a series of price swings in the months ahead because it would take time for EU countries to find a replacement for the oil it normally imported from Iran.

But he stood firm on the fact that international oil markets remained well supplied.

In an exclusive interview with the *Financial Times*, he pointed to the fact that there was no shortage of oil anywhere in the world. He disclosed that OPEC was currently producing 30.6 million b/d of crude oil — 600,000 b/d more than the target it agreed at its December 2011 Ministerial Conference in Vienna.

Turning to oil prices, El-Badri also told the newspaper that under "normal circumstances", oil should be trading at \$100/b — a price he believed to be "suitable" for both producers and consumers.

However, he explained that the market was being driven upwards to a price of around \$111/b by the geopolitical situation in the MENA region and not by supply and demand fundamentals. He added that "geopolitics is a good instrument for speculation and hedging."

Speaking to the *Wall Street Journal*, the OPEC Secretary General took the oil price issue further, warning that escalating oil prices, again as a consequence of current geopolitical tensions, could hurt the world economy.

"If the price goes to \$150/b — then, yes, of course, it will hurt the world economy," he was quoted as saying. He also said the situation had the potential to be the "perfect storm" for the international oil markets.

El-Badri made it clear to the newspaper that he did not feel comfortable with OPEC Member Countries generating income as a result of conflict, adding that oil price volatility "is also bad for investment".

Speaking to *Reuters* on the Iranian situation, the OPEC Secretary General stipulated that an embargo was really not the best tool with which to talk to any country. He stressed that dialogue was "the only way we can solve any problem, rather than making a threat here and there."

In comments in an interview with *Bloomberg*, El-Badri said that, despite the current situation in MENA, sellers and buyers of oil would find a way to conduct their business. "The seller will look for an alternative home for its exports, and the buyer will look for another alternative," he said.

The OPEC Secretary General also gave interviews to London-based presenters for the leading television channels, *Al Arabiya*, *Al Jazeera* and *CNBC*.

He told *CNBC* that he did not want to contemplate a possible disruption in the Straits of Hormuz, because of the huge amount of crude and oil products that were transported through the waterway every day.

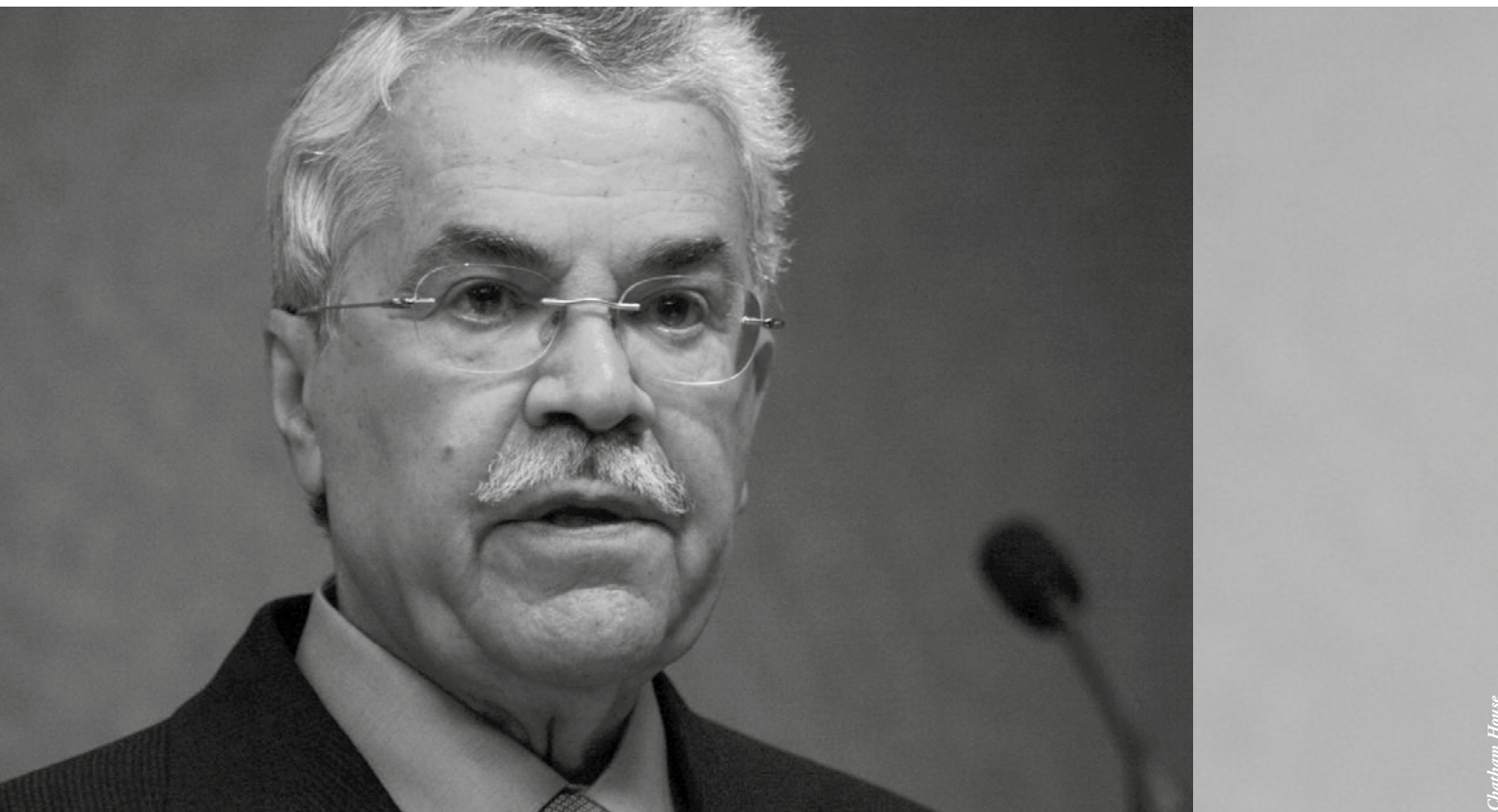
However, throughout his interviews, the OPEC Secretary General expressed optimism that tensions between Iran and the West would be resolved.

"My feeling is ... there will be no attack on Iran, there will be no closure of the Straits of Hormuz," he told the *Wall Street Journal*. "At the end of the day, wisdom will prevail and everything will go back to normal." ❖❖

NB. Reports covering the keynote addresses of El-Badri and Saudi Arabia's Naimi to the MENA conference can be found on the following pages.

Saudi Arabia committed to role as dependable supplier of world energy

— *Naimi*



Chatham House

Saudi Arabia will continue to be a stable supplier of crude oil to world markets for many decades to come, according to the Kingdom's Petroleum and Mineral Resources Minister, Ali I Naimi.

Speaking at the annual Middle East and North Africa (MENA) 2012 Energy Conference, at Chatham House, in London, at the end of January, he stressed that the Kingdom was continually investing in both its oil and gas industries to further consolidate its role as a reliable, steady and dependable supplier of energy to the world.

And Naimi issued an assurance that Saudi Arabia's economy, which was enjoying a period of rapid and

extraordinary growth, would not impact on its petroleum exports "now or in the future".

He told delegates at the conference, which this year had as its theme 'Investing for the future in turbulent times', that the Kingdom was also making great strides towards diversifying its economy away from over-reliance on fossil fuels.

"We are investing in our young people. We are giving them the opportunities they want to play an important part in the future economic prosperity and growth of our nation," he said.

Saudi Arabia had a young and fast-growing population

and a GDP growth rate currently at around seven percent. Industrialization was increasing and the Kingdom was witnessing an unprecedented expansion in its infrastructure, he added.

“We are taking unprecedented steps to ensure greater energy efficiency and we are investing in renewable sources of energy, particularly solar.”

Naimi pointed out that the modern state of Saudi Arabia was founded in 1932 — only a few years before he was born — and at that point it was one of the poorest nations in the world.

“Today, it is a member of the G20. Saudi Arabia has come a long way in a short space of time and is moving forward at a remarkable pace.”

Oil capacity expansion

The Minister said it was true that the Kingdom’s domestic energy demands were rising to keep pace with the growth, but this had been a trend for many years and, in his opinion, was normal for any growing economy.

“The same occurred in Europe, the same is happening in China. But ever-increasing economic growth is not exponential, as Europe and the United States are currently witnessing, and neither is increasing energy usage,” he affirmed.

Looking at the ongoing investments Saudi Arabia has been making in its oil and gas sector, Naimi said that in 2009 the Kingdom completed a massive programme to increase its oil production capacity.

This investment and effort was aimed at retaining Saudi Arabia’s position as number one supplier of oil to the world. And such investments were continuing.

“But Saudi Arabia does not stop at oil production. We are making large investments to increase refining capacity — both at home and abroad — and to broaden the range of refined goods created in the Kingdom, both for use on the domestic market and for export.”

In addition to oil, he said, there were four major gas fields under development and Saudi Arabia had also identified potential reserves of unconventional gas.

“This ongoing focus on gas, for use in domestic consumption, is one of Saudi Arabia’s economic priorities,” noted Naimi.

The Kingdom possessed proven gas reserves of 286 trillion cubic feet, the fourth-largest in the world, and finding additional gas reserves was one of its top priorities.

“We have increased gas production from 1.65 billion standard cu ft/day in 1981 to 10.7bn cu ft/day in 2011.

And we expect overall gas production capacity to be around 16bn cu ft/day by 2020. This increase will meet a large part of our energy consumption and will also free up even more oil for export.”

Turning to energy efficiency and measures Saudi Arabia was putting in place to support its promotion, Naimi said the efficient use of energy was as much an issue for the Kingdom, with its huge natural resources, as it was for all countries.

“Increased efficiency makes sense environmentally, but also economically,” he declared.

It was clear, said Naimi, that the Kingdom’s rapid economic growth was creating additional demands on existing energy systems.

As such, the country had embarked on a number of ambitious programmes to enhance energy efficiency in the industrial, government, commercial and residential sectors.

“We are striving, also, to raise awareness among the public and specifically addressing children and schools about the tangible benefits of energy efficiency.

“And we are investing manpower and brainpower in efforts to develop new thinking when it comes to energy efficiency.”

Naimi pointed to the Riyadh-based King Abdullah Petroleum Studies and Research Centre, which the Kingdom hoped and expected would rise to the level of an internationally renowned and respected think tank.

There was also the King Abdullah University for Science and Technology, near Jeddah, which the authorities anticipated would become a ‘House of Wisdom’ in the country, region and in global terms. It was already well on the way.

On Saudi Arabia’s commitment to renewable sources of energy, Naimi stressed that greenhouse gas emissions and global warming were among humanity’s most pressing concerns.

“Societal expectations on climate change are real and our industry is expected to take a leadership role. We are doing this in Saudi Arabia,” he affirmed.

“The fact remains that oil will continue to play a major role in the overall energy mix for many decades. It is clear that a petroleum-free transportation system is decades away.

“And if you look at the vast range of products derived from crude oil, everything from lubricants to asphalt, medicines to plastics — it is clear petroleum is here to stay,” he added.

The Minister said he saw renewable energy sources

as supplementing existing sources, helping to prolong the Kingdom's continued export of crude oil.

"This is why we are investing in solar energy, which we also have in abundance. The Kingdom experiences roughly 3,000 hours of sunshine per year, emitting about 7,000 watts of energy per square metre."

Huge solar potential

Saudi Arabia also featured empty stretches of desert that could host solar arrays and it was blessed with deposits of quartz that could be used in the manufacture of silicon photovoltaic cells, he explained.

"I know that many European countries are investing in solar technology, but that the economics of it are increasingly difficult to justify in these straightened times. It is an area where I see huge potential for collaboration and partnership between Saudi and European companies — and real potential for job creation," Naimi told delegates.

Looking at the general situation, the Minister said that they were living in dynamic times where collaboration, discussion and partnership were all vital. It was only by working together that countries could find solutions to the global problems.

He noted that unrest continued in some countries in the Middle East, while Europe's economy was facing another challenging year. And the balance of global economic power was increasingly tilting eastwards.

Dynamic change, he continued, was also taking place within the oil industry as the US and Canada increased domestic production, Brazil sought to unlock its large offshore reserves, and countries such as Iraq and Libya aimed to increase production.

"So, dynamic times, but also a time of opportunities. This is true for many countries, including the Kingdom of Saudi Arabia," he stated.

Concerning the oil sector, Naimi maintained that there would always be short-term supply issues somewhere in the world. But, in his view, it was not supply that would be a problem in the near future, it would be demand.

"Europe faces a difficult time and it is clear that its economic readjustment will result in falling demand for goods and services. This, in turn, will impact on oil demand and imports," he said.

But he said that the world did not begin and end in Europe. Going forward, he saw the potential for real prosperity and growth throughout the Middle East, in Asia, South America and Africa.

"So, dynamic times, yes, difficult times for some, yes, but also a time for optimism."

And Naimi said that in this time of dynamic change — in the region, the world and the oil industry — Saudi Arabia was committed to fulfilling its international role.

"And it will continue to play its part by providing the energy required to fuel prosperity in the region and the world," he reiterated.

However, the Kingdom's investment, he said, went far beyond oil and gas and beyond exploiting additional energy resources.

"We are investing in industrial parks and clusters which will create added value products from our natural resources — and opportunities for business.

"Plus, we have invested heavily in the King Abdullah Financial District in Riyadh which, at twice the area of London's Canary Wharf, is set to become a centre for finance in the region.

"We know that our ultimate resource is the young people of Saudi Arabia. In this we are no different from any other country, including the UK.

"We know that pumping oil out of the ground does not create many jobs. It does not foster an entrepreneurial spirit, nor does it sharpen critical faculties.

"So our investment is focused on creating jobs and employment opportunities."


Naimi pointed out that, for many years, the Kingdom had invested billions of dollars in educating its young people, investing in vocational training, and building educational establishments.

"We are also investing in research and development. I should add that we are also continuing to make further investments in other critical areas, particularly healthcare and physical infrastructure.

"I hope you can see how we are investing for the future, for Saudi Arabia's future and the future stability of global oil markets. It is because of our ongoing investment that Saudi Arabia is able to respond to shortages around the world," he stated.

"There is a great spirit of dynamism sweeping across Saudi Arabia. And I am sure that this will be a dynamic decade of growth in the region.

"Of course, the world will face many difficulties and challenges over the coming year, but I am confident that, through dialogue, partnership and trust, they can be overcome.

"And finally, I am sure that together, we can create a lasting legacy of prosperity for the people of Saudi Arabia, the region and the world," he concluded. 

“Cooperative exchanges and constructive actions can achieve great things”

Cultivating relationships vital for maintaining oil market stability

— *El-Badri*

OPEC Member Countries will continue to strive to meet consumer demand, while ensuring oil market stability, but ongoing coordinated efforts are needed to make sure that global supply remains balanced.

That was the view expressed by OPEC Secretary General, Abdalla Salem El-Badri, to the Middle East and North Africa (MENA) 2012 Energy Conference, held at Chatham House, London, at the end of January.

In a keynote address on the ‘MENA region in the international arena’, he warned that any situation of oversupply, for example, would be detrimental to the industry and could lead to the adverse situation the industry faced in the 1980s.

El-Badri told assembled delegates that through their Organization — which today produced two-fifths of global crude supply — OPEC Member Countries would also continue to use oil production allocations, or any other means, to respond to the market and ensure its stability.

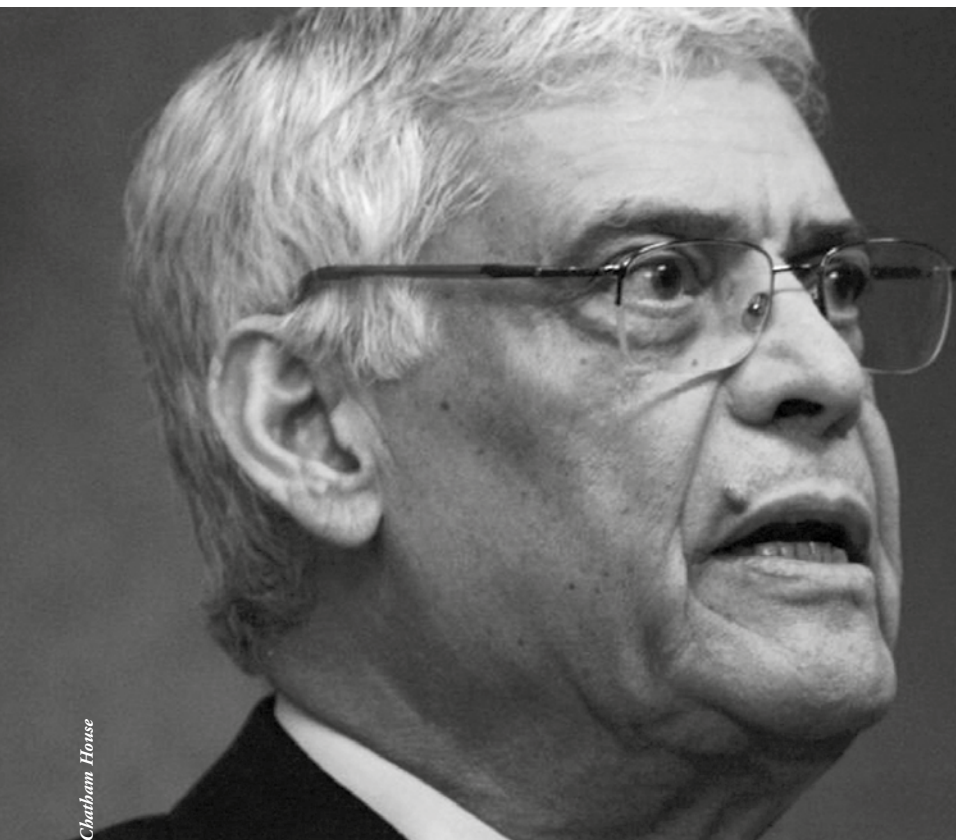
And by maintaining their overall commitment to energy investments in the oil sector, OPEC’s Members were not only safeguarding their oil revenues, but also importantly taking steps to ensure global supply.

El-Badri noted that at their last Ministerial Conference in Vienna, in December 2011, Member Countries agreed to produce an average of 30 million barrels/day of oil in 2012 “unless something drastic happens to disrupt the market.”

But he pointed out that there were other actions that OPEC Member Countries had taken to ensure supply and stability.

“The growing use of enhanced oil recovery techniques, for example, has helped many of them increase their proven reserves, keep older oil fields productive and be better prepared to respond to supply emergencies,” he affirmed.

“There is also an increased collaboration between



our Member Country national oil companies (NOCs) and the world's international oil companies (IOCs). And many things can be achieved together — especially in the area of technological know-how,” he maintained.

El-Badri noted that the role of OPEC NOCs had also been evolving. Many of them were now investing abroad, beyond their home countries, outside of their “comfort zone” and were engaging in healthy competition with IOCs in the international arena.

“This is a good development. It means we have more energy actors around the world and a more interesting global landscape. So, as our crude oil sources grow more diverse, the diversity of producers is expanding as well,” he affirmed.

Concentrating on the theme of his presentation — OPEC's Member Countries in MENA, including their role in the energy balance and their importance to the rest of the world — the OPEC Secretary General said the region's geographic position, together with its abundant natural resources, had given it immense strategic importance.

With an estimated population of more than 300 million, he said, the countries of the MENA region had a great diversity of people, languages and cultures. They also had many things in common, which gave them a strong sense of identity.

Important role in history

Some called the MENA region the “cradle of civilization”. Three of the world's major religions began there. And it had certainly played an important role in history.

“And its circumstances have become closely linked to the stability of the rest of the world. This is why it should always be kept in a state of peace and tranquility,” professed El-Badri.

Unfortunately, he said, this had not always been the case. Recent events had illustrated how delicate things were. Unrest of different sorts had spread across the MENA region for months and this had affected oil supply levels.

Thankfully, he continued, the enormous effort of OPEC's Member Countries — eight of which were located in the MENA region — had helped to mitigate the impact on oil supplies.

“In fact, many of OPEC's Members in the region are strategic trading partners with the rest of the world, especially as key suppliers of oil. Their overall resource endowments speak to their importance,” he said.

Offering some latest statistics, El-Badri informed the conference that OPEC Member Countries in the MENA region together possessed 840 billion b of proven crude oil reserves. They also had around 80 trillion cubic metres of proven gas deposits. This represented about 58 per cent and 43 per cent of the global totals, respectively.

For most of the MENA countries, oil and gas also formed the backbone of their economies and trade. Last year, said El-Badri, oil alone accounted for more than one-third of their combined GDP. The sector also represented more than two-thirds of their total exports.

“These exports are absolutely critical since their revenues are essential to meet the social and development needs of OPEC Member Countries.”

The OPEC Secretary General disclosed that the amount of oil supplied daily to the market by the Organization's Members in the MENA region was also substantial.

In 2011, the eight countries involved produced around 23.1m b/d of crude oil, which was more than 90 per cent of all oil production in the entire MENA region.

“The MENA region is obviously critical to satisfying the world's energy needs. This is why any uncertainty in the region is likely to have a serious global impact,” he observed.

Looking at the state of the global economy, coupled with the situation with world oil demand, El-Badri said that today the world could not afford any uncertainty. The lingering effects of the 2008 global economic crisis continued to negatively affect some of the world's biggest economies.

For example, he said, economic conditions in the United States remained weak, even though there were some positive signs. There was also persistent high unemployment across the OECD countries, while, more importantly, there was the ongoing sovereign debt crisis in the Euro-zone, where nine countries recently had their credit-ratings downgraded.

“If this situation continues without a solution, it may end up affecting the global economy dramatically,” he contended.

Then, continued El-Badri, there was the risk of a slowdown in the biggest developing countries, which was also weighing on global prospects. Even in China, GDP growth, which had slowed in the last quarter of 2011, was expected to decline further during the first quarter of this year. However, despite the economic uncertainty, the OPEC Secretary General pointed to the fact that the Organization's data showed long-term growth in energy consumption.

In its most recent *World Oil Outlook*, OPEC saw global energy demand increasing under all scenarios, with primary global energy demand to 2035 doubling in the Reference Case.

“Fossil fuels are seen as making up 82 per cent of this by 2035, having fallen slightly from 87 per cent today. The dominant growth here is expected to be demand in non-OECD developing countries,” said El-Badri.

In OPEC's Reference Case, overall oil demand was forecast to rise from 88m b/d in 2011 to 93m b/d by 2015 — reaching around 110m b/d by 2035. Around 80

per cent of this projected growth was slated to occur in developing Asia.

No increase, however, was expected from the OECD countries in the long-term to 2035.

“The key to this future oil demand growth will be the transportation sector in non-OECD countries, which will account for 88 per cent of the demand increase to 2035,” explained El-Badri.

Another source of rising oil demand, he said, was growing domestic demand in the MENA region.

“In fact, some countries in the region have some of the fastest-growing energy demand in the world. And domestic consumption of crude oil — primarily for power-generating purposes — has increased in several countries,” noted El-Badri.

“Of course, these countries realize that with local energy consumption rising, they need to find ways to expand and diversify their energy supplies. Otherwise, this may negatively affect their oil exports.”

El-Badri said that some OPEC Countries in MENA were already exploring for more oil and gas. Others were developing recent gas discoveries. But countries were also looking at other alternatives, including solar, wind and even nuclear power to meet rising domestic energy consumption.

“If the problem of satisfying domestic energy demand, while also keeping crude export levels, is left without a solution, it could seriously affect some MENA countries,” El-Badri maintained.

He told the conference that with energy demand growing both in the MENA region and developing Asia, the importance of maintaining upstream energy investments was clear.

In fact, he revealed, an estimated investment of \$525bn in oil, gas and electricity generation was envisaged over the next four or five years across the entire MENA region.

“More specifically, in OPEC’s Member Countries in MENA, we can see a strong commitment to upstream investments in crude oil, NGLs and GTLs.”

El-Badri said that the OPEC Members in the MENA region were expected to invest around \$200bn in 83 upstream projects through 2015, a programme that was expected to result in an estimated net increase of liquids capacity of about 4.6m b/d.

In addition, he said, downstream investment projects across the entire MENA region continued to point to the growing importance of oil and gas products.

Capital requirements for the oil and gas downstream,

for example, across the entire MENA region were expected to be in the range of \$207bn. This was seen as adding 1.4m b/d to the region’s overall refining capacity through 2015, with the majority expected to come from new grassroots projects, as well as several expansion schemes.

Turning to the global energy mix, the OPEC Secretary General maintained that the expansion of energy resources was good for the world, especially for the poor in the developing countries who still relied on the burning of biomass.

Most recently, OPEC had been monitoring with interest the development of shale gas in the Americas, especially since many of OPEC’s Members in the MENA region — Algeria, Iran, Libya, Qatar and Saudi Arabia — were also gas producers.

“Generally, we think shale gas holds great promise. We see it as part of diverse energy mix — something we have always welcomed,” said El-Badri.

But shale gas, he said, was still in the early stages of development and there were concerns about the potential environmental impact of hydraulic fracturing, especially on groundwater supplies.

“While technology and scientific innovation will help eventually solve these problems, it will take time,” he observed.

The contributions of technology and research and development (R&D) also remained critical to the oil industry. In fact, said El-Badri, OPEC continued to participate in R&D conferences with other energy stakeholders.

“Sharing experiences with new technology can benefit everyone. We have seen this happen with efforts to reduce the industry’s environmental impact,” he affirmed.

Carbon capture and storage (CCS) technology, for example, had been discussed and shared by many in the industry. It had been recognized as having important climate change mitigation potential, he said.

In concluding remarks, the OPEC Secretary General told delegates that behind everything lay the importance of relationships — relationships between producers and consumers, the IOCs and NOCs, and among all stakeholders. “Bringing us together is a commitment to keeping the market stable,” he professed.

He said it was important to stress once more just how important the MENA region was to the rest of the world. It certainly had its share of challenges and difficulties, but in terms of energy, it was vital, which was why all concerned should always strive to ensure peace, cooperation and stability there.

“Cooperative exchanges and constructive actions can achieve great things. Soon even Libyan production will be back and we hope we can then look forward to stability — not just in the MENA region, but in the global markets.

“We hope 2012 does not turn out to be a challenging year. But, as in the past, we in OPEC are always ready to continue that ‘quest’ to meet the world’s energy needs and, when necessary, take actions that are of benefit to all,” he added.



Dr Daniel Yergin

A reasonable optimist



*The OPEC Bulletin's Alvino-Mario Fantini talks to **Daniel Yergin** about his new book, **The Quest: Energy Security and the Remaking of the Modern World**. Yergin, who is Chairman of IHS Cambridge Energy Research Associates and is the author of numerous books about political economy and energy, was in Vienna to visit OPEC Secretary General, Abdalla Salem El-Badri. His 1991 book, **The Prize: The Epic Quest for Oil, Money and Power**, is widely regarded as the definitive history of the oil industry.*

One doesn't often get an opportunity to meet people like Daniel Yergin, one of the world's top experts in energy, economics and geopolitics. But on a recent visit to the OPEC Secretariat, with mild winter winds blowing outside, he found time to talk to me about his career, the energy industry and the challenges of writing a 700-page book. From the outset, he admits that "to do a book like this, you can only do it if you like to write."

Yergin is known for his talent at understanding — and for making understandable — the complex dynamics of the energy industry. With his team at Cambridge Energy Research Associates (CERA), a consulting firm he founded in 1983, he has long advised governments and companies on energy trends and geopolitical events.

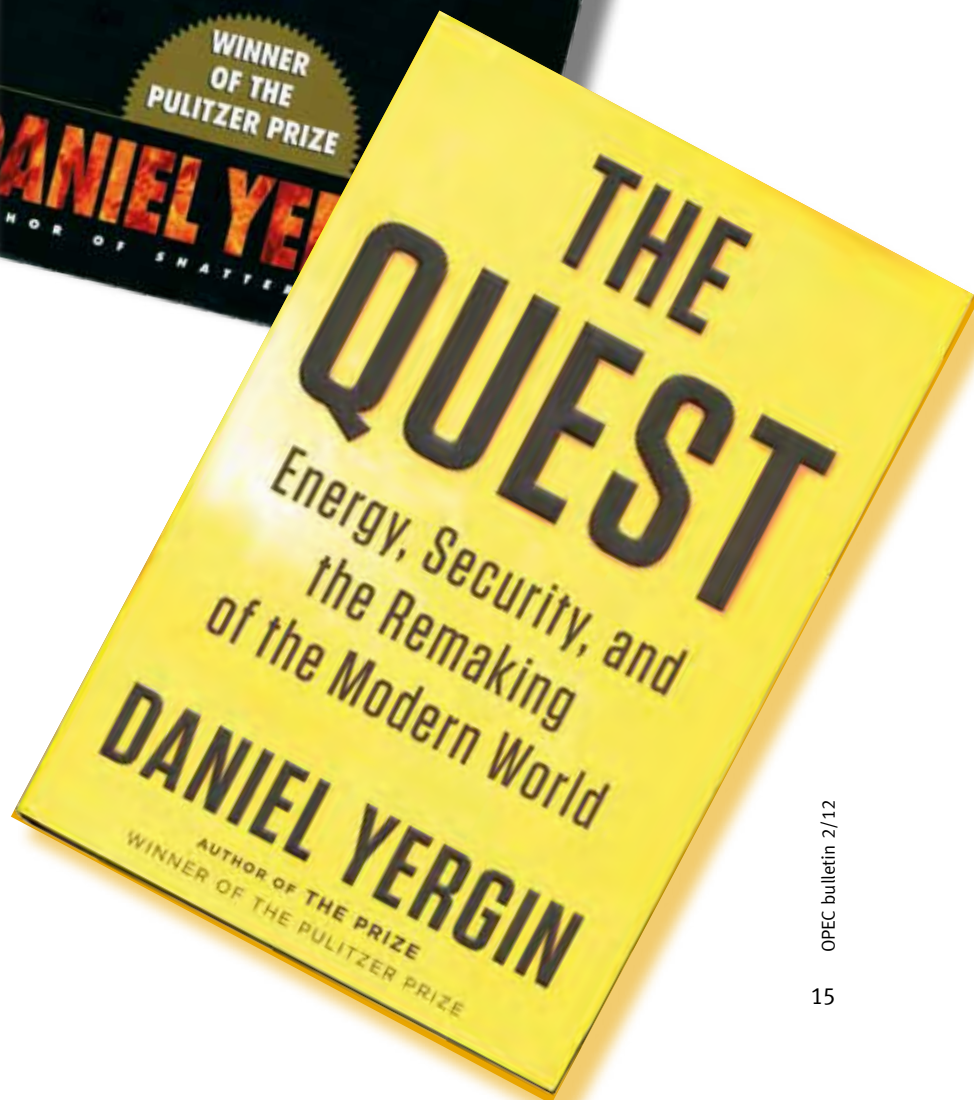
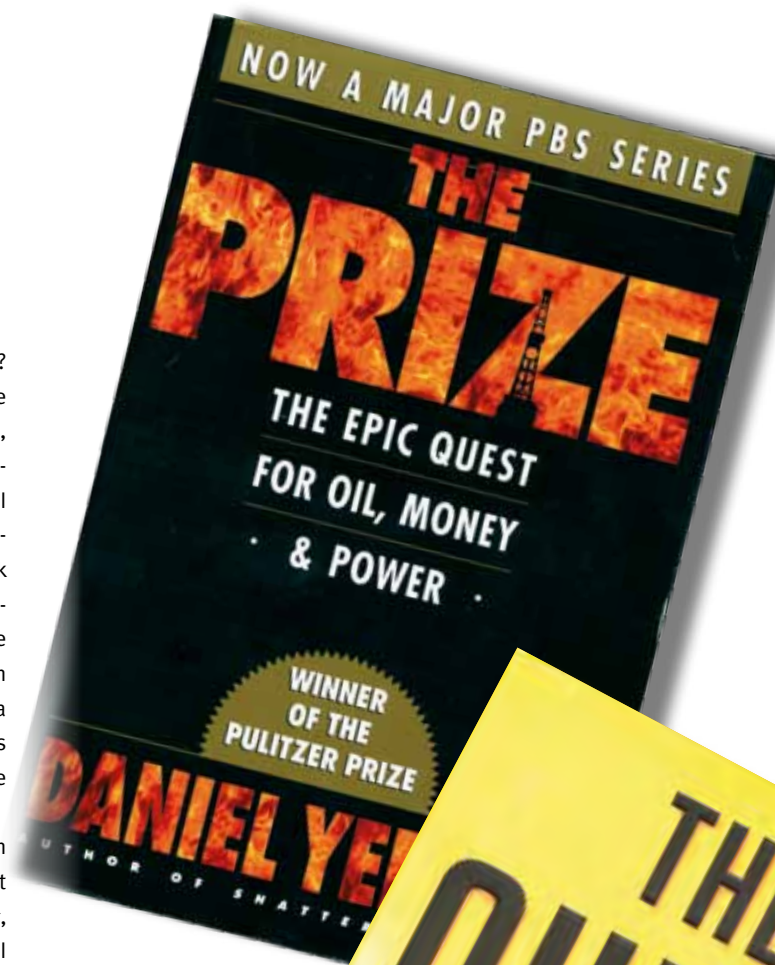
Since he has built a successful career on finding patterns amid the complexity of data, I first ask: What

do you look for? How do you become a 'pattern-finder'? He pauses, smiles and says: "That's a question I face every day in our work." In contrast to other companies, Yergin is apparently not that keen on building quantitative models though his company certainly uses them. "I am much more interested in using scenarios, not in trying to put probabilities on them but really trying to look at where we are today and trying to develop logical stories about the future." The key for Yergin is stories: the stories behind the numbers and the stories that explain events. And rather than making predictions, which are a dime a dozen, he tries to follow two or three indicators that highlight a basic trend or issue, and which may have an important impact on the industry.

It sounds so unlike the pattern-finders I have known working for the big investment banks. Intrigued, I ask what he looks for if his emphasis isn't on financial engineering, heavy number-crunching or computational modeling. "I think a lot of it is simply listening and picking up signals around the world," he says. "It's what we do every day." And based on these snippets of information and unexpected signals that he gathers, he develops scenarios. "It's a kind of rigorous discipline, that of developing scenarios, and they've served us very well," he says.

One scenario that he developed in 2006 was characterized by a deep global economic crisis that could envelop the entire world. Back then, he says, "people said, 'well, we're not ever going to have an economic crisis anymore because all the central banks know what they are doing.'" Of course, that particular scenario, unfortunately, came to pass.

"We also did a scenario about \$150/barrel oil," he recalls, thinking about scenarios built in the last decade. "We thought about what the consequences would be of



Yergin maintains that shale oil/gas is one of the most important things to have happened to global energy in the last few years.



this and why prices would not keep going up.” A few short years later, in the summer of 2008, that scenario also came true, with crude prices rising to an unprecedented \$147/b. Clearly, whatever methodology Yergin and his team have been using has been working.

The lesson for any oil market observer seems to be that it is important to ask the right questions, look beyond the numbers, and try to consider the impact and outcome of different alternative scenarios. His new book, *The Quest*, embodies this approach and, on the whole, as Yergin explains, it provides a sound framework for understanding where the world may be going in the next few years.

“Many things are fascinating about oil and energy in general,” he says. But one of them is the contradiction between the very long-term nature of the industry, in terms of the investment cycle, and the fact that every two or three years the overall consensus changes and expectations change. This makes for an extremely challenging environment in which to work, make plans and implement projects. But it is precisely this complexity that seems to keep him — and so many others in the industry — enthralled, excited and perpetually fascinated. And, as I find while talking to him, that fascination is infectious.

Human ingenuity and the problem of scarcity

Many previous media profiles of Yergin consider him an eternal optimist for his unworried stance on the future of fossil fuels and his doubts about the ‘peak oil’ theory. “One of the themes for me in that kind of ‘shortage mentality’ is that it assumes that technology won’t respond,” he explains. “But if you look at the horizons of the oil and gas industries, again and again they have been transformed by technology.” In fact, throughout the history of man, the application of new and innovative technology to solve problems has consistently yielded solutions — solutions that no one would have predicted and that have had long-term impacts beyond what may have been foreseen.

That is why the story Yergin tells in *The Quest* is so interesting: It shows, through numerous historical examples in a variety of industries, the great achievements and revolutionary changes — in society and across economies — that have been wrought by technology and human ingenuity. “I always find that those who are very pessimistic are the people who assume that technology is finished,” he says. But this isn’t true at all; technology is constantly evolving.

“My own thinking evolved because in the 1970s, the ‘Club of Rome’ mentality really dominated,” Yergin says. The idea at that time was that the world would soon enter an era of permanent shortage; but this did not happen — thanks to the unexpected impact of human ingenuity. People always seem to underestimate the power of human ingenuity. “Look at a country like Singapore,” he notes. “It has no natural resources and yet it was years ago when its per capita income began to exceed Britain’s.” What explains this phenomenon? “Human ingenuity.”

And what about M King Hubbert, the Shell scientist who is considered the ‘patron saint of peak oil’? Quite charitably, Yergin says that Hubbert was a product of his time and was simply influenced by his early formative years.

“A lot of Hubbert’s ideas were formed in the 1930s, during the Depression, and in the 1950s, which was a time of stagnation in oil technology,” he explains. Influenced by those early experiences, Hubbert may not have been able to conceive of a time when resource scarcity would not be the dominant economic concern.

Shale oil and gas

A very important thing to have happened to global energy in the last few years is, of course, the sudden explosion of shale oil and shale gas. “Up until recently,” Yergin says, “the majors had thought this thing about shale gas was just something that independents did ... they didn’t realize the massive impact it could have.” Now, however, the evolution of this new industry has not only rebalanced the global gas market but, in terms of shale oil, “it is changing the production outlook in North America,” Yergin says.

He notes that even OPEC Member Countries are getting into the game, exploring their own shale options. “You are seeing oil-exporting countries, OPEC Members, looking at their own shale resources both in terms of oil and in terms of natural gas,” Yergin says.

This, of course, is very significant since OPEC’s Members, especially in the Middle East, have growing domestic energy needs which they have been meeting



through crude-based electricity generation. By developing their own shale resources, Yergin says, they will be able to diversify their domestic energy sources — “so that they don’t eat up their oil production to generate electricity.”

Above: Daniel Yergin (l), pictured here during his meeting in Vienna with OPEC Secretary General, Abdalla Salem El-Badri.

The importance of technology

In his new book, Yergin carefully addresses the power and importance of innovative technology for the oil industry. He recalls the results of earlier studies that showed that the average time for an innovation in upstream technology to really permeate the rest of the oil industry was about 16 to 17 years. But many people forget this.

By way of example, Yergin points out that to many people, “shale gas just seemed to burst onto the scene. But you have to realize that it took a quarter of a century of work before that innovation started to have an impact.” In fact, he adds that only today are we finally starting to see the impact of technologies that were initially created or generated decades ago, in the late 1970s and early 1980s — “during the period when people believed in shortage.

“It takes time,” he adds. “We may not know what is happening in some laboratory at a university,” Yergin says, “but we’ll see the impact of it in 25 or 30 years from now because of these long lead times.”

In his writings and speeches, Yergin often likes to remind people of the scale of projects in the oil industry. “The scale is so big, the capital costs are so large, the lead times are so long,” he says, “that innovation takes a long time in the energy industry for its real impact to be felt.”



China's growing appetite

With such a patient attitude and the careful research that seems to encompass all fields, I ask Yergin if there is anything that has truly surprised him over the years. The rapid rise of China, he says, was not so much of a surprise but a phenomenon that appeared more quickly and robustly than many people expected.

"It seems to me that in terms of where we are in oil prices today, the hinge year was 2004," he says. That was the year that China went from being a supplier of low-cost manufactures to the rest of the world to a consumer. "It was also the year that Chinese oil demand went up 16 per cent and crude prices started to go up," he says, "and the world started to understand that China was not just a supplier of low-cost goods — but it was a market, a really important market."

Of course, the impact it has had on every commodity has been tremendous, he adds. No matter how you look at China, its future role in the 21st century is going to be increasingly important.

The Quest

It took me several weeks to get through Yergin's new book, and it is an entertaining and informative read. But what exactly is 'the quest'? Yergin smiles and says: "It is the search for reliable, reasonably-priced, environmentally-sound energy resources that a growing world needs." No more and no less.

This is a daunting quest, to be sure, but one which is essential for our future, he adds. "The starting point is that we have a \$65 trillion world economy and in two decades or so, depending on the current economics, we might have a \$130tr economy," he says. This suggests various important questions: Where is the energy going to come from? How is the energy going to come? Who is going to provide it? What is the energy mix going to be? "Those are the basic questions that really shape the narrative of my book."

But overall, it is a different kind of book from *The Prize*. "It still has a voice that is similar to *The Prize*,

and a similar way of story-telling. But it has a much wider canvas," he says. "The *Prize* is like a locomotive running down the track at a high rate of speed," he jokes. But *The Quest* moves differently, across a broad front. "What it really tries to do is create a framework for understanding our energy world, how it came about and where it's going."

The book picks up the story of oil from where *The Prize* left off — but expands it and adds important new elements that have arisen in the past two decades. It talks about oil, of course, but also includes natural gas, electric power and provides a whole new important narrative about how climate change became a big issue for the energy industry.

In fact, Yergin explains that the importance of the environmental theme gripped him: "I thought I was going to write one chapter but I ended up writing six because it was totally fascinating — and I learned so much from doing it." In addition, he notes that his new book has a lot of new material about the re-birth of renewables.

What he didn't expect, however, was the ending of the book. "When I started the book," he says, "I didn't think I would end on the question of the future of the automobile but as I was writing, the world just kept changing." And as new information appeared and new trends were identified, he saw the importance of the future role of the automobile — and the changing nature of its fuel sources, automobile use around the world, particularly in developing countries, and emerging transportation policies — as increasingly important.



*The French military engineer, Sadi Carnot (1796–1832), author of *Reflections on the Motive Power of Fire* (1824), a book Yergin calls “the first systematic analysis of how man had actually harnessed energy.”*

Compared to *The Prize*, “this was a more challenging book to write,” Yergin admits. “But at the same time, I think there are very strong personalities that make the story come alive.” This is part of the book’s great appeal: a narrative driven by interesting, quirky or eccentric characters; people who may have been overlooked by history but who have played essential roles in the development of the energy industry.

The mutuality of interests

Yergin’s broad-mindedness, his openness to different ideas and his fundamental attitude of fairness, is also apparent when he talks about the many different stakeholders in the energy industry. “I think it is really important that consumers and producers have a very strong dialogue,” he says. Consumers and producers need to be open to discussions and dialogue in order to understand the world better from different perspectives, he explains.

Yergin points to numerous events over the past several decades: “I think what the last 30 years has demonstrated is mutuality of interests between consumers and producers,” he says. Their economies are so strongly tied together in today’s world that there simply needs to be communication, he adds.

“Whether it is oil exporters or natural gas exporters; whether it is emerging markets or industrial countries; many different forms need to come together,” he states. It will only benefit them, he notes. “The better understanding there is of this very globalized energy world among participants, the better the outcome,” he then maintains.

Closing the reality gap

As we near the end of the interview, I recall one of the many characters in *The Quest* that Yergin discovered during his research: the Frenchman, Sadi Carnot. In 1824, Carnot published a book which Yergin describes as the “first systematic analysis of how man had actually harnessed energy.” In *The Quest*, he writes: “Humanity had broken the bonds that, except for rudimentary wind and water power, had been set by the muscles of man and beast.”

These words come to mind in my final moments with Yergin. The story he tells in *The Quest* is the story of man’s indefatigable application of ingenuity to solve problems and meet basic needs through the centuries. But often today there is so little support given to the energy industry, and so few investment dollars channeled into innovative technology, that one wonders about the future. It seems that people must be reminded that it is human creativity that will help the world.

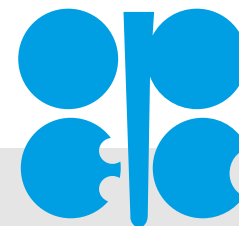
As Yergin says toward the end of his book, the energy solutions for the 21st century “will be found in the minds of people around the world.”

This is his characteristic optimism. But, he reminds me, it has to be tempered with realism. “What I have in the book is a combination of realism and optimism,” Yergin says. “Realism about the difficult problems and difficult challenges that we have and the very obvious risks that are right in front of our eyes ... but also a sense of reasonable optimism that with time, innovation and creativity will respond to needs. That is my theme.”

If only more people had a dose of Yergin’s “reasonable optimism”, I think to myself. Too often people make arguments about energy without a solid grounding in history or facts. Indeed, there are a lot of thoughts about energy that are really disconnected from the realities of energy, he says.

That is why, in writing *The Quest*, “I wanted people to have a framework for understanding where we are and where we may be going. I wanted to bring some realism to the energy debate. I wanted to close the ‘reality gap’.”





IEA/OPEC/IEF hold second symposium on energy outlooks

Global economic uncertainty making energy forecasting more problematic

OPEC, the International Energy Agency (IEA) and the International Energy Forum (IEF) continued with their series of jointly hosted meetings with a Symposium on Energy Outlooks in Riyadh, Saudi Arabia, in January.

The two-day joint gathering, which was convened at the IEF's Headquarters in the Kingdom's capital, was borne out of the landmark energy meetings held in Jeddah and London in 2008.

"Our gathering here today reaffirms the commitment shown by the IEA, the IEF and OPEC to furthering cooperation and dialogue," Fuad Al-Zayer, a Saudi national, who heads the Data Services Department at the OPEC Secretariat in Vienna, said at the opening session.

Speaking on behalf of the Organization's Secretary General, Abdalla Salem El-Badri, he reminded assembled delegates that the Symposium formed part of a joint programme of work agreed by the three organizations and endorsed by energy ministers at the 12th IEF Meeting in Cancun, in March 2010.

"From OPEC's perspective, we are pleased to see that the words and recommendations from the Cancun Ministerial Declaration have been turned into concrete actions," Al-Zayer affirmed.

"It is essential we continue to work toward the proper and full implementation of the agreed upon areas of cooperation. Our efforts should be dedicated to this, so that we can fully achieve what was laid out in the Cancun Declaration," he stated.

The aim of the Symposium, held under Chatham House rules to encourage open and lively discussion, was to build on the valuable information and insights gained at the first such meeting between the three organizations, held in January 2011, also in Riyadh.

The talks offered a timely opportunity for the relevant energy stakeholders

to discuss energy market trends, such as energy supply, demand and prices, as well as associated factors that influence these trends, including environmental policies, economic conditions and technological development.

A number of analytical areas were identified as providing scope for potential discussion, not necessarily to come to any common view, but to ensure a better understanding of each organization's outlook and perspective.

Topics included regional demand growth, such as in China, India and the Middle East, the impact of government policies, marginal cost and price assumptions, ethane treatment, the definition and availability of spare capacity, bunker fuels, biofuels, seasonality patterns in oil demand and supply, long-term non-OPEC supply, processing gains, natural gas liquids (NGLs), and the links between GDP growth and oil demand.

Delegates heard that uncertainty affecting the global economy, associated with the oil price volatility witnessed over the past years, had fogged structural development, making energy forecasting more difficult than ever.

It was therefore deemed important for all energy stakeholders to move forward on improving the technical understanding of each side's viewpoints on data, methodologies and outlooks.

The IEA and OPEC both regularly publish energy and oil outlooks covering the short, medium and long term. In addition, the two organizations submit energy analysis reports to ministers attending the periodic meetings of the IEF.

Both the IEA and OPEC agree on the core topic that energy will be central to the lives and livelihoods of people the world over, today and in the years ahead.

Under all future scenarios, the two organizations see energy demand increasing as economies expand, the global population grows and living standards across the world improve.

Rising car ownership

The transportation sector is singled out as the largest source of oil demand growth, backed by rising car ownership and freight transport in the developing countries.

By 2035, both the IEA's World Energy Outlook (WEO) and OPEC's World Oil Outlook (WOO) project that world energy demand will be more than 51 per cent higher than it is today.

Both organizations, who are fully cognisant of the uncertainty regarding future economic growth rates, agree that the fastest economic growth will be in the developing nations.

They recognize that a wide diversity of energy types will fuel energy demand in the future with oil, gas and coal continuing to be the most widely used fuels with their resources considered sufficient to meet global energy demand, accounting for over 80 per cent of total energy consumption in 2035.

But in the breakdown, oil will remain the leading energy source in satisfying the world's growing energy needs for the foreseeable future.

There is clear consensus between the two organizations that there are sufficient resources of both conventional and non-conventional oil to satisfy expected demand levels.

There is also a common view that OPEC's crude oil capacity will increase over the medium term, with spare capacity remaining at comfortable levels.

And there is agreement that, at least in the central scenarios of both the IEA and OPEC, there will be an increasing need longer term for OPEC crude oil, even though the

future of the Organization's crude share in global liquids' supply will not be markedly different from today's levels.

However, the Symposium heard that there were considerable uncertainties concerning how future demand would evolve, in particular with regard to energy and environmental policies, economic growth levels and technological challenges.

In the light of this, it was considered important that the IEA and OPEC continually evolved their dialogue and cooperation and enhanced their insights into data, methodologies and outlooks.

"That is not to say that we will find agreement on everything. But we should look to continually advance our understanding and, where differences occur, try and appreciate each other's viewpoints," Al-Zayer pointed out.

The Symposium was divided into three sessions. The first looked at recent market developments and near term-prospects, including technical issues related to demand, supply and stocks, while the second session concentrated on the medium- and long-term outlooks, demand, downstream activities and supply.

The sessions were supported by comprehensive presentations by the IEA and OPEC on the short- medium- and long-term prospects, as well as input by invited experts on a wide range of disciplines in the field of energy.

The final session constituted a wrap-up of the two days of deliberations and discussion of the insights acquired.

Through the various presentations, the Symposium heard that such events cemented relationships on both a personal and organizational level, allowed the parties involved to share ideas and concepts, and brought to the fore areas of convergence and divergence.


Delegates were told that with the world today often seeming as though it was in a constant state of flux, the importance of dialogue and cooperation between international organizations had never been greater.

It was essential for organizations such as the IEA and OPEC to have a better understanding of the complex and ever-changing economic environment, particularly given the nature of the resource involved.

Energy was central "to each and every one of us", the Symposium heard, and with energy demand set to grow further in the coming years, it was vital that all stakeholders in the industry worked together for market stability.

This collective approach would continue to be the basis for the effective and efficient functioning of the global energy market. It was thus important that producers and consumers continually worked to find common ground, to look for shared solutions and evolve an environment that was conducive to reaching constructive end results.

Delegates were reminded that OPEC had long recognized the importance of adopting a plurilateral approach to addressing major topical issues and it believed in continuing to develop existing and new avenues of cooperation with innovative thinking, collaboration and swift action on key issues, many of which were complex, broad and inter-related.

"Looking ahead, our shared objective must be a stable and sustainable energy future in an increasingly interdependent world ... it is not an easy task, but one that we must all show commitment towards achieving," Al-Zayer maintained. 

Secretariat hosts 11th Annual Statistical Meeting

Flow of accurate, timely data essential for decision-making process

The growing importance of data flow to the decision-making process of OPEC, as well as to the performance of its Secretariat in Vienna, was again highlighted at the Organization's yearly statistical get-together, attended by Member Countries in the Austrian capital at the end of January.

"The flow of data and information from you to the Secretariat ... is of great importance for the effective and efficient functioning of our Organization," Dr Hasan M Qabazard, Director of OPEC's Research Division, told the 11th Annual Statistical Meeting at the Organization's Secretariat.

"Timely and reliable data allows the Secretariat to prepare its regular reports and analysis and is crucial to make an informed policy-making process possible," he told assembled delegates.

In referring to the gathering as "the most important technical meeting of the Secretariat, as far as the data flow from Member Countries is concerned", he stressed that its importance had been emphasized by both OPEC's Economic Commission Board and Board of Governors, as well as by the OPEC Conference.

"As I am sure you are all aware, the main purpose of this meeting is to exchange and further strengthen technical communication between the Secretariat and the Member Countries," Qabazard said in opening remarks to the meeting, attended by over 30 representatives and specialists from Member Countries.

He pointed out that a number of OPEC publications were strongly dependent on data from Member Countries, including the *Annual Statistical Bulletin*, the *Monthly Oil Market Report* and the annual *World Oil Outlook*, as well as reports such as the monthly crude oil *Production Monitoring Report*.

"These all require accurate and timely data to develop their analysis, and to arrive at their forecasts. Of course, these are all instruments used in the decision-making processes by the Ministerial Conference and the Board of Governors," he explained.

Qabazard said that this all underscored the importance of active participation from Member Country representatives in the meetings, since it was only with their support that the Organization could move forward in advancing the flow of statistics from Member Countries.

Previous meetings, he said, had undoubtedly proved beneficial. For the Secretariat, they had enabled its analysts and researchers to clarify outstanding points and issues that had limited the flow of statistical data from Member Countries.

And for Member Countries, they had provided an opportunity to better understand the importance of timely and reliable data that "benefits all of us".

Qabazard stated that they had certainly seen much improvement in the data process and acquisition over the years — achieved through collaboration and cooperation

— but unfortunately they were still coming up short in some areas.

One area of concern, he said, concerned the inadequate submission of direct production data from Member Countries. This was to be included in the Secretariat’s *Production Monitoring Report* and *Monthly Oil Market Report* and used by the Conference for analysis and to support the decision-making process.

“We would like to emphasize especially at this meeting to try and improve on these submissions,” he added.

Qabazard’s comments were endorsed by Fuad Al-Zayer, Head of the Secretariat’s Data Services Department, who stated that the annual meeting was

Member Countries to support our in-house reports, our analysis for decision-making, as well as for the transparency of the Organization’s activities in the marketplace, where we publish a lot of the data that we receive, such as through JODI, or our investment data,” he stated.

However, Al-Zayer also pointed out that they still had a way to improve and “we are here to improve the quality of



Above, heading the OPEC team, Dr Hasan M Qabazard (second right), Director, Research Division, together with (l-r): Oswaldo Tapia, Head, Energy Studies Department; Fuad A Al-Zayer, Head, Data Services Department; and Puguh Irawan, Statistical Systems Coordinator.



Left: The Algerian delegation: Miloud Medjelled (c); Nadia Goudjil (r); and Boutaleb Mohamed Rochdi (l).

increasingly becoming more important for discussing issues related to data from Member Countries.

In introductory comments to the gathering, he also emphasized how critical timely and reliable data was for the wide range of research and policy analysis carried out by the Secretariat.

“This meeting is quite important and we take it very seriously. And I know the delegates that attend feel the same way — that is why we have such a good attendance,” he affirmed.

“We are increasingly relying on direct data from

that data and the timeliness of its delivery.”

The meeting was organized into three sessions, covering one-and-a-half days. The first session continued with two Secretariat presentations — a review of Member Countries’ oil data quality by Puguh Irawan, Statistical Systems Coordinator, and a report on the *Annual Statistical Bulletin*,



Above: Luís Neves (l), OPEC National Representative and Angola’s representative to the meeting. Seen here with Puguh Irawan from the OPEC Secretariat.



Right: Ecuador's representatives to the meeting, Eng Francisco Polo (r); and Eng David Salazar (l).



Below: Iran's team was represented by Aliakbar Dizajkhalili (c); Majid Roodneshin (l); and Mostafa Barzegar (r).



presented by Ramadan Janan, Statistical Systems Analyst.

Irawan reminded delegates that directly communicated data from Member Countries was ideally the ultimate data source for OPEC research.

"It is not good for the Organization to rely on secondary sources for its data," he maintained. "Secondary source data is not always reliable and using it continually could affect OPEC's credibility," he stated.

"And if we lack our own data, then this will ultimately affect the quality of global data," he added.



Above: Nadya Kanaan Abdullah (r); and Intesar Mahmood Ahmed (l), Iraq's representatives.



Session two focused on the performance of monthly data submission by Member Countries. Klaus Stoeger, Statistician, gave a presentation on the production/supply statement, quarterly NGL data, while Dr Pantelis Christodoulides, Senior Statistician, covered the data performance and way forward for the Riyadh-based Joint Organizations Data Initiative (JODI).

Looking at database applications, the importance of oil data for short-term market analysis was given in a report by Dr Aziz Yahyai, Senior Research Analyst, while Amal Alawami, Upstream Oil Industry Analyst, informed the meeting about data for the medium- and long-term market outlook.



Top: the Qatari delegation, represented by Dr Atmane Dahmani (c); Mahmoud Abu Saad (l); and Badar Shaheen Al-Kuwari (r).



Above: Libya's team, comprising Mehdi S Darira (r); Mohamed S Ramadan El-Agily (l); and Rabia Sadeg A Baayou (c).

Left: Nigeria's representatives included Adamu H Mhya (l); Umar Abdullahi (r); and Jazuli Gidado Bello (c).



Above: Members of the Saudi Arabian delegation (r–l): Ahmad M A Al-Ghamdi, OPEC National Representative; Abdulwahid Al-Barrak; Mohammed I Sarra; Sami Al-Mehaid; and Faisal Ahmadi.



Left: Hamdan Mubarak Al Akbari, OPEC National Representative, who represented the United Arab Emirates.

Below: Venezuelan team members, Fadi Kabboul (c), OPEC National Representative; Dr Inti Garzón; and Hector Felizola (l).





Above, from the OPEC Secretariat (l-r): Amal Alawami, Upstream Oil Industry Analyst in the Petroleum Studies Department; Dr Hannes Windholz, Statistical Databank Specialist; Mouhamad Moudassir, Statistician; Dr Pantelis Christodoulides, Senior Statistician; Klaus Stöger, Statistician; and Harvir Kalirai, Statistician.

In session three, delegates deliberated on the OPEC upstream and downstream investment projects' list, with Ms Alawami giving a presentation on the upstream sector, while Dr Hannes Windholz, Statistical Database Specialist, covered the downstream.

Some considerable time in this session was then given to carefully evaluating Member Countries' directly communicated data received through the Annual Questionnaire.

In addition, Harvir Kalirai, Statistician, gave a presentation on the methodology used for estimating petroleum export revenue, while Hannes Eichner, Web Technology Specialist, looked at the OPEC Intranet and its improved application.

During the meeting, Member Country representatives in attendance also gave presentations on their respective experiences concerning their domestic oil and energy industries and the importance of data flow. ☐☐



During the meeting, delegates and Secretariat officials gathered for a group picture.

OPEC convenes first coordination meeting in run up to Rio+20 Conference

A first Coordination Meeting of OPEC Member Countries ahead of the Rio+20 sustainable development talks in Brazil in the summer was held at the Organization's Secretariat in Vienna at the beginning of February.

Attended by over 20 experts and officials from OPEC

Earth Summit in Rio de Janeiro, the 10th anniversary of the 2002 World Summit on Sustainable Development in Johannesburg and is expected to result in a political outcome and, possibly, a future action plan.

And as Dr Hasan M Qabazard, Director of OPEC's



Member Countries and the Secretariat, the two-day gathering was called for by the OPEC Conference to discuss the likely outcome of Rio+20 and look at the position of OPEC and its Member Countries.

Key objectives

Specifically, the key objectives of OPEC's first coordination discussions were to review the Rio+20 zero-draft, brainstorm the potential benefits and threats for OPEC and its Member Countries, exchange views, and discuss possible elements for an OPEC position.

The United Nations Conference on Sustainable Development (Rio+20) will be held in Rio de Janeiro on June 20–22.

It will mark the 20th anniversary of the landmark 1992

Research Division, told delegates in his opening remarks to the coordination meeting, Rio+20 had significant importance for OPEC Member Countries since it had the potential to shape some of the economic, social and environmental developments in the world.

The objective of Rio+20 is to secure renewed political commitment for sustainable development, review progress made to date and assess the remaining gaps in the implementation of the outcomes of the major summits on sustainable development, and address new and emerging challenges

The conference will focus on two themes — a green economy in the context of sustainable development and poverty eradication; and the institutional framework for sustainable development.

“It is essential we understand what these broad topics

mean, identify the historical context, analyze possible future implications for our Member Countries, and outline possible approaches to these themes at the Rio+20 Conference,” Qabazard affirmed.

Their other focus, he said, was on energy, particularly given that the UN had declared 2012 as the ‘International Year of Sustainable Energy for All’.

Significant issue

“Energy is clearly going to be a significant issue in Rio and given the relationship our Member Countries have with energy markets it is imperative that we make our voices heard on this subject,” he stressed.

Qabazard reminded delegates that thanks to excellent preparation in the run-up to the Johannesburg Summit in 2002, OPEC had succeeded in having very good coordination during the event.

In this regard, he underscored the role of the OPEC

Secretariat in providing technical support and a coordination platform for Member Countries, as it did for the meetings of the United Nations Framework Convention on Climate Change (UNFCCC).

The coordination meeting, which looked at energy issues in the context of multilateral negotiations related to sustainable development, heard presentations from Member Countries and the Secretariat.

It asked the Secretariat to prepare reports outlining the main risks and opportunities for OPEC Member Countries at Rio+20, as well as give guidance for Member Countries in preparing their submissions on the conference’s zero-draft proposal.


Aysar A Tayeb, of the Saudi Arabian delegation, was unanimously elected Chairman of the meeting, while Ramiro Ramirez, of the Venezuelan team, was elected co-Chairman.

A second Coordination Meeting of OPEC Member Countries is due to be held towards the end of May. ❖❖

Abdalla Salem El-Badri (c), OPEC Secretary General, pictured with delegates and officials who attended the meeting.



Down but not out — gas flares are still a burning issue



Over four per cent of global gas production goes up in smoke — literally. It is either flared, or, worse, vented during oil production. There is widespread agreement that this is wasteful, bad for the climate and a blight on local communities. Despite a decade of progress — led by the World Bank with its Global Gas Flaring Reduction initiative, of which OPEC is a member — much remains to be done.

Alex Forbes reports exclusively for the OPEC Bulletin.



In 2010, oil producers flared, or vented, 134 billion cubic metres (bcm) of natural gas. That is the estimate of the World Bank. However, this was a 22 per cent improvement on 2005, when 171 bcm of gas was wasted in this way. Still, the 134 bcm lost two years ago would still have supplied over a quarter of the European Union's gas consumption, or one-fifth of the needs of the United States.

According to Bent Svensson, Programme Manager of the World Bank's Global Gas Flaring Reduction (GGFR) initiative, this much gas would have realised \$25 million at a price of \$5m/British thermal unit (Btu), which is higher than the current market price in the US, but lower than in most other major gas markets.

The flaring also added the equivalent of 350m tonnes of carbon dioxide (CO₂) to global greenhouse gas emissions. And there is a human cost. In areas where flaring is prevalent, there are villages and communities that have to live with flares that roar continuously, polluting the air and ground.

GGFR partners around the world

The World Bank-led Global Gas Flaring Reduction initiative is a public-private partnership that includes countries, companies and multilateral organizations.

Country	Oil companies	Organization
Algeria	BP (UK)	European Union
Angola	Chevron(USA)	IFC
Azerbaijan	ConocoPhillips (USA)	Masdar Initiative
Cameroon	Eni (Italy)	OPEC Secretariat
Canada	Exxon Mobil (USA)	World Bank
Chad	Marathon Oil (USA)	
Ecuador	Maersk Oil and Gas (Denmark)	
Equatorial Guinea	NNPC (Nigeria)	
France	Pemex (Mexico)	
Gabon	PetroEcuador (Ecuador)	
Indonesia	Pertamina (Indonesia)	
Iraq	Shell (UK, The Netherlands)	
Kazakhstan	Sonatrach (Algeria)	
Khanty-Mansiysk	Sonangol (Angola)	
Mexico	SOCAR (Azerbaijan)	
Nigeria	SNH (Cameroon)	
Norway	Statoil (Norway)	
Qatar	Total (France)	
UAE	Qatar Petroleum (Qatar)	
United States		
Uzbekistan		

Table 1: Estimated flared volumes from satellite data, 2006–2010 (bcm)

Ranking	Country	2006	2007	2008	2009	2010	Change 2009/10
1	Russia	50.0	52.3	42.0	46.6	35.2	-11.4
2	Nigeria	18.6	16.3	15.5	14.9	15.2	0.3
3	Iran	12.2	10.7	10.8	10.9	11.3	0.4
4	Iraq	7.2	6.7	7.1	8.1	9.1	1.1
5	Algeria	6.4	5.6	6.2	4.9	5.4	0.5
6	Angola	4.0	3.5	3.5	3.4	4.1	0.7
7	Kazakhstan	6.2	5.5	5.4	5.0	3.8	-1.2
8	Libya	4.4	3.8	4.0	3.5	3.8	0.3
9	Saudi Arabia	4.2	4.2	4.3	3.9	3.7	-0.2
10	Venezuela	2.1	2.2	2.7	2.8	2.8	0.0
11	Mexico	2.1	2.7	3.6	3.0	2.5	-0.5
12	Indonesia	3.2	2.6	2.5	2.9	2.3	-0.6
13	China	2.9	2.6	2.5	2.4	2.1	-0.3
14	Canada	1.7	2.0	1.9	1.8	2.1	0.3
15	USA*	2.0	2.1	2.3	2.0	2.1	0.1
16	Uzbekistan	2.9	2.1	2.7	1.7	1.9	0.2
17	Qatar	2.3	2.4	2.3	2.2	1.9	-0.3
18	Oman	2.3	2.0	2.0	1.9	1.8	-0.1
19	Malaysia	1.9	1.8	1.9	1.9	1.5	-0.4
20	Egypt	1.7	1.5	1.6	1.8	1.5	-0.3
Total top 20		138	133	125	126	114	-11.8
Rest of the world		23	21	22	21	20	-1.1
Global flaring level		162	154	146	147	134	-12.9

Source: US National Oceanic and Atmospheric Administration (NOAA) satellite data.

* Coverage limited to Gulf of Mexico, Alaska, and partial continental USA.

There are several ways in which this gas could have been profitably utilised. So why do the flares continue to burn? If there is no economic way of utilising the gas — through a pipeline to market, into a liquefied natural gas (LNG) plant, for local electricity generation, or, by re-injecting it into the oil field — it has to be disposed of in some way.

Releasing the gas unignited into the atmosphere is called ‘venting’; igniting it as it is released is called ‘flaring’.

Regarding its effect on the climate, the venting of natural gas is even more damaging than flaring. Methane is

over 20 times more potent a greenhouse gas than CO₂, meaning that one tonne of vented natural gas has the same “global warming potential” as 23 tonnes of CO₂. It is also hard to measure because it is invisible — thus eluding the current satellite method of monitoring flaring.

Economic imperatives

Virtually all new oil-producing projects are designed to avoid the continual flaring of gas. But many older projects were designed and constructed before gas flaring became the contentious political issue it is today.

For most of the oil-producing countries that flare large volumes of gas, oil revenues form a major part of national revenue — especially with oil prices at their current levels.

Thus, the economic pressures to continue producing crude, even if associated gas has to be flared, or vented, remain intense.

Balanced against these pressures is the growing awareness on the part of governments, oil and gas companies, and various international agencies of the need to minimise flaring wherever possible — not just because it is bad for the environment and local communities, but also because it is wasteful.

Suitable planned projects have proved that utilising the waste gas can be economic, if they are well designed and executed and, crucially, if governments create the appropriate policy, regulatory and commercial environment.

Equipment manufacturer, GE, which last year published a report on gas flaring and how it could be minimised, believes that “gas flaring reduction has the potential to be one of the great energy and environmental success stories of the next five years.”

It maintains that for the oil and gas industry, the challenge represents a chance to take a leadership role on sustainable resource development and energy efficiency. And for producer governments, it is an opportunity to create value from a wasted resource, enable wider access to

Table2: Gas flaring and oil production: how the top 20 have performed since 2006

	2006 (bcm)	2010 (bcm)	% change (2010 over 2006)	% of world total gas flared in 2010	Ranking in GGFR's list of top gas-flaring nations in 2010	2010 oil production (million b/d)	2010 oil production (million barrels)	2010 gas flaring intensity (cubic metres/ barrel)	cumulative % of world total gas flared in 2010
Russia	50.0	35.2	-30	26	1	10.27	3,749	9.39	26
Nigeria	18.6	15.2	-18	11	2	2.40	877	17.34	38
Iran	12.2	11.3	-7	8	3	4.25	1,549	7.29	46
Iraq	7.2	9.1	26	7	4	2.46	898	10.13	53
Algeria	6.4	5.4	-16	4	5	1.81	660	8.18	57
Angola	4.0	4.1	2	3	6	1.85	676	6.07	60
Kazakhstan	6.2	3.8	-39	3	7	1.76	641	5.93	63
Libya	4.4	3.8	-14	3	8	1.66	606	6.28	66
Saudi Arabia	4.2	3.7	-12	3	9	10.07	3,676	1.01	68
Venezuela	2.1	2.8	33	2	10	2.47	902	3.10	70
Mexico	2.1	2.5	19	2	11	2.96	1,080	2.32	72
Indonesia	3.2	2.3	-28	2	12	0.99	360	6.39	74
China	2.9	2.1	-28	2	13	4.07	1,486	1.41	76
Canada	1.7	2.1	24	2	14	3.34	1,218	1.72	77
USA*	2.0	2.1	5	2	15	7.51	2,742	0.77	79
Uzbekistan	2.9	1.9	-34	1	16	0.09	32	59.83	80
Qatar	2.3	1.9	-17	1	17	1.57	573	3.32	82
Oman	2.3	1.8	-22	1	18	0.87	316	5.70	83
Malaysia	1.9	1.5	-21	1	19	0.72	261	5.74	84
Egypt	1.7	1.5	-12	1	20	0.74	269	5.58	85
Total – top 20	138	114	-17	85		61.8	22,568	5.06	
Total world	162	134	-17	100		79.9	29,181	4.59	

Sources: World Bank Global Gas Flaring Reduction (GGFR) partnership, US National Oceanic and Atmospheric Administration (NOAA), BP Statistical Review of World Energy 2010.

* Coverage limited to Gulf of Mexico, Alaska, and partial continental USA.

energy and mitigate social and political challenges that often accompany the issue.

A decade of World Bank leadership

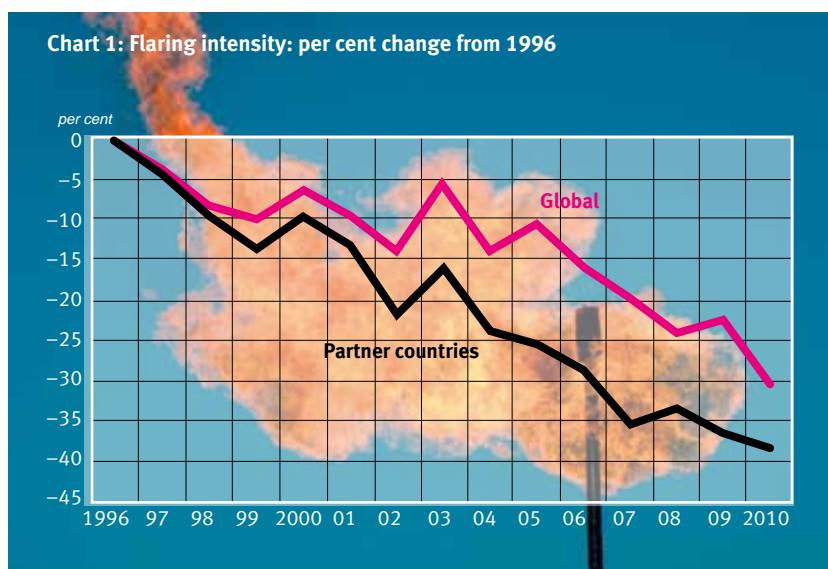
Efforts to reduce gas flaring over the past decade have been led by the World Bank since it set up the GGFR public-private partnership in 2002.

Partners include a broad range of countries, among them OPEC Members Algeria, Angola, Ecuador, Iraq, Nigeria, Qatar and the United Arab Emirates (UAE), companies (including several major national oil and gas

firms and most of the international oil and gas majors) and multilateral organizations, such as OPEC and the European Union.

A notable omission is Russia, which, in 2010, was the world's largest oil producer and, according to World Bank estimates, by far the largest flarer and venter of natural gas.

"Gas-flaring reduction is not just a technical, or economic, issue that the oil industry and oil-producing countries have to deal with, but is a relevant dimension of today's energy and environmental debate," says Svensson.



“In this debate, everyone is looking for win-win solutions that mitigate climate change, provide access to cleaner sources of energy and increase economic growth. Gas-flaring reduction has the potential to do precisely that,” he professes.

The charts above and right, indicate that the GGFR partnership appears to be having an impact.

Chart 1 shows that while global flaring levels, measured by volume, fell in most years between 1996 and 2010, levels in the partner countries of the GGFR partnership fell significantly faster than in the world as a whole.

Another way of looking at the issue is shown in **Chart 2**, which plots how “flaring intensity” — defined as the amount of gas flared for each barrel of oil produced — has changed over the same period.

Given that over the period covered by the charts global oil production increased by 17 per cent — from 70 million barrels/day to 82m b/d — progress looks more impressive when measured in this way.

This chart too shows that progress has been significantly faster in the GGFR member countries than in the world as a whole.

Shedding light on flaring volumes

An issue that the World Bank has had to confront in addressing gas flaring has been the difficulty of independently ascertaining how much gas is being flared by individual countries.

A significant step forward was taken in 2007 when the GGFR partnership published a landmark study conducted

by scientists at the US National Oceanic and Atmospheric Administration (NOAA).

By using low-light imaging data from the US Air Force Defence Meteorological Satellite Programme, they were able to assess the volumes of gas burned in flares, which are visible in observations of night-time lights under cloud-free conditions.

Previously, the only way to track gas flaring had been through official estimates. The data have since been updated annually (see **Table 1** on p32).

GGFR figures suggested that some countries had been flaring much more gas than they had previously reported.

In official figures for 2004, for example, Russia was second in the league of gas-flaring countries, with a volume of 14.9 bcm,

behind Nigeria with 24.1 bcm. The GGFR numbers for 2004 suggested that Russia’s flared volumes were 50.7 bcm, more than three times the official estimates and more than twice Nigeria’s volumes of 23.0 bcm.

OPEC initiatives

According to GGFR’s 2010 estimates, gas flaring is concentrated in three regions: Russia, the Gulf of Guinea in sub-Saharan Africa, and the Middle East and North Africa (MENA).

The top 20 gas-flaring nations accounted for 85 per cent of flared volumes and the top four for 53 per cent (see **Table 2** on p33).

And with eight out of the top ten nations being OPEC Member Countries, who together accounted for 55.4 bcm of the gas flared, two-fifths of the global total, it is not surprising they have been among the leaders in attempting to address the issue.

Nigeria, a GGFR member from the start in 2002, has been attempting to set solid deadlines for the elimination of flaring for some time. Admittedly, domestic flaring volumes having fallen by one-third between 2004 and 2010, but the nation still remains the second-largest gas-flaring country, with volumes of 15.2 bcm in 2010, 11 per cent of the world total.

Unfortunately, the large-scale projects that the government had hoped to implement to minimise flaring have proved to be more difficult to put into practice than was anticipated. They include the West Africa Gas Pipeline, which faced years of delay, a growing number of proposed

LNG projects, most of which have yet to get off the drawing board, and the Escravos GTL plant, which has suffered long delays and massive cost over-runs.

However, looking ahead on a positive note, a key policy development is Nigeria's ambitious gas master plan, which calls for the development of gas-processing hubs to gather and process gas to provide fuel for power stations.

In 2007, the government set up the Nigeria Flare Reduction Committee (NFRC) to facilitate the reduction of flaring. It has been working to establish a comprehensive flaring reduction plan to be integrated into the gas master plan being developed by the Nigerian National Petroleum Corporation (NNPC).

According to Svensson: "The NFRC has identified technically and financially viable options for the accelerated reduction of gas flaring that would be acceptable to all stakeholders and has advised the government on mechanisms for the implementation of these options."

Elsewhere in Africa, Angola is about to bring onstream a major new LNG project — its first — which will make a major contribution to reducing the flaring of its gas.

The project is unusual in that it will be one of the world's major gas flaring-reduction projects because the primary source of supply during the early years of operation will be gas associated with crude oil production that is currently being flared, due to the lack of a market.

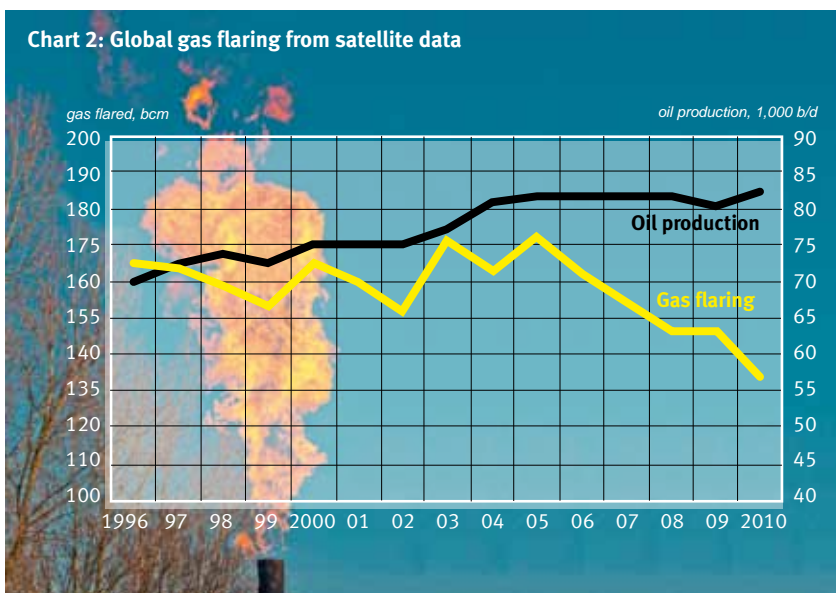
The multi-billion dollar project will use 6.8 bcm/year of feed gas to produce 5m t per annum of LNG for export. The project partners are Chevron, Angola's national oil and gas company, Sonangol, Total, BP and Eni. All are GGFR partners.

Another major flaring-reduction project is underway in Iraq, where the government recently approved a gas project involving Shell and Mitsubishi that will lead to the gathering and utilisation of large amounts of gas currently being flared during the production of oil from the country's southern fields.

The \$17bn deal, signed last November, will involve harnessing 700m cu ft per day of gas initially and perhaps up to 2bn cu ft/d eventually.

Not only will this drastically reduce gas flaring, it will help Iraq to meet the electricity needs of its people and, according to Shell Chief Executive Officer, Peter Voser, could eventually lead to the construction of a floating LNG plant off the coast for the export of gas not needed within the country.

Also in the Middle East, Kuwait has set a target of cutting gas flaring to one per cent of its onshore and offshore



operations, while Qatar was the first country in the Gulf Cooperation Council (GCC) to join the GGFR partnership in January 2009.

Qatar has been successfully reducing gas flaring, to around two bcm in 2010, despite going through a period of rapid oil and gas development. A key utilisation project undertaken at the Al-Shaheen oil field is the world's largest gas-flaring project approved for carbon finance.

Among other projects identified by Qatar Petroleum and the GGFR is a \$1bn venture to capture "jetty boil-off gas" from the nation's huge LNG export facilities.

Meanwhile, last year, Iran revealed it had spent around \$500m in improving the recovery of associated gas from its oil fields.

In February, it stopped gas flaring of 26m cu m from the Soroush and Norouz oil fields in the Gulf through implementing a clean development mechanism (CDM) project. The country will now earn an extra \$25m per year.

And in Venezuela, gas flaring has fallen steadily from 3.1 bcm in 2000 to 2.8 bcm in 2009. The country's focus is to develop secure and efficient gas recovery systems and to encourage gas-based industries.

Despite these promising successes, Svensson stresses that there is no room for complacency and that major challenges need to be addressed, particularly in countries that have recently joined the GGFR partnership.

In a paper prepared for the World Petroleum Congress (WPC), held in Qatar in December 2011, he warned: "Gains in global flaring reduction may potentially be reversed in countries planning major new oil production — where GGFR support will be relevant and much-needed." ■■



BP Energy Outlook sees need for open, competitive energy sector



OPEC's share of global oil production to continue growing

Global energy demand will continue to grow over the next 20 years, albeit at a slowing annual rate, fuelled by economic and population growth in non-OECD countries.

That was the view put forward in the latest Energy Outlook 2030 by oil major, BP, released in January.

And there would remain a heavy reliance on higher oil exports from Middle East OPEC Member Countries to meet demand in the future.

OPEC's share of global oil output was expected to increase by 2030 to its highest level since the late 1970s.

BP said that world energy demand was likely to grow by 39 per cent by 2030, or 1.6 per cent annually, with the expansion coming almost entirely in non-OECD countries. Consumption in the OECD region was expected to rise by just four per cent in total over the period.

"On our projections, OPEC's share of global oil production would increase from 42 per cent in 2010 to 46 per cent in 2030, a level not reached since 1977," BP's Chief Economist, Christof Rühl, was quoted as saying at the Outlook's launch.

China and India would become the world's largest and third-largest economies and energy consumers, respectively, by

BP



Christof Rühl,
BP's Chief
Economist.

2030, while the current global number one — the United States — would slip into second place.

BP forecast that China would depend on imports to provide 80 per cent of its oil needs in the next 20 years, while India's figure would be even higher at 91 per cent.

However, Europe's need to source fuel from abroad in the years ahead would grow even more. The region would have to import 94 per cent of its oil needs and 80 per cent of the natural gas it required.

Meanwhile, the US was expected to buy less and less foreign oil, with imports eventually falling below levels last seen in the 1990s. This was due to rising domestic shale and ethanol production.

However, overall, energy consumption growth globally would be constrained by stronger crude oil prices, which have been seen in recent years, as well as technological advances, a range of new policies, and the continued, gradual reduction of non-OECD subsidies, BP said.

The report maintained that the global energy scene would remain dominated by fossil fuels, which were forecast to account for 81 per cent of world energy demand by 2030, down by about six per cent from current levels.

The period under review should also see increased fuel-switching, with more gas and renewables used at the expense of coal and oil.

BP said that the gradual switching should see renewables, including biofuels, continue to be the fastest-growing sources of energy globally, rising at an annual rate of more than eight per cent. This was quicker even than natural gas, the fastest-growing fossil fuel at about two per cent a year over the period to 2030.

The report also pointed in its forecast to increased energy efficiency and strong growth for renewable energy.

"This report is by turns challenging, fascinating and stimulating for anyone in the energy business. It helps us to be both realistic and optimistic. It shows there are things we cannot change — like the underlying drivers of energy demand — and things we can change — like the way we satisfy that demand," commented Bob Dudley, BP's Chief Executive Officer.

He said the main message was that the world needed to have an open, competitive energy sector, one that encouraged innovation and thereby maximized efficiency, in order to enjoy energy that was sufficient, secure and sustainable into the future.

Unconventional supply

Rühl pointed out that the impact of globalization and competition would continue to deliver "a remarkable convergence in energy intensity around the world, a measure of energy use per unit of national economic output."

The growth of unconventional supply, including shale oil in the United States and gas, the oil sands of Canada and Brazil's deep waters, against a background of a gradual decline in oil demand, would see the Western Hemisphere become almost totally energy self-sufficient by 2030.

This meant that growth in the rest of the world, principally Asia, would depend increasingly on the Middle East, in particular for its growing oil requirements.

The report stressed that oil, the world's leading fuel today, would continue to lose market share throughout the period, although demand for hydrocarbon liquids would still reach 103 million barrels/day in 2030, up by 18 per cent from 2010.

This, it said, meant that the world would still need to bring on enough liquids — oil, biofuels and others — to meet the forecast 16m b/d of extra demand by 2030 and replace declining output from existing sources.

While coal was expected to continue gaining market share in the current decade, growth of this fuel would wane in the 2020–30 decade, while gas growth would remain steady, with non-fossil fuels likely to contribute nearly half of the expansion after 2020.

BP said that power generation was expected to be the fastest growing user of energy in the period to 2030, accounting for more than half the total growth in primary energy use.

The company maintained that it was in the power

sector where the greatest changes in the fuel mix were expected. Renewables, nuclear and hydro-electric resources should account for more than half the growth in power generation.

This year's Energy Outlook 2030 examines in more detail several important facets of the global energy picture.

These include the pathways for economic development and energy demand in China and India, as well as factors impacting the energy export prospects of the Middle East and the drivers of energy consumption in road transportation.

The report said that, in China, growth of energy use was expected to slow significantly after 2020 as the economy matured.

And although India's population was on track to exceed China's, its energy growth path was unlikely to replicate China's energy intensive growth path.

India was forecast to more than double its energy use to 2030, which would be heavily based on coal, but this would still result in consumption of some 1.3 billion tonnes of oil equivalent (toe), or just over one-quarter of China's total.

BP's analysis pointed to the fact that the Middle East countries had the capability to bring on the required new production to meet global demand, even though the region's energy use per capita was expected to remain more than three times as high as the rest of the non-OECD world.

The company said it expected to see steady progress in longstanding efforts to displace oil with gas and to improve the efficiency of energy use within the region.

The report contended that Saudi Arabian, Iraqi and regional production of gas-related liquids would dominate supply growth as the region's share of global oil supply increased to 34 per cent by 2030.

Transportation, it said, was likely to be the slowest growing sector for global energy consumption, while there would be significant improvements in fuel efficiency, including hybridization of vehicles, which would partly offset continued strong growth in vehicle sales in the emerging markets.

BP said that hybrid vehicles (including plug-ins) offered consumer flexibility and appeared capable of meeting anticipated fuel economy targets in 2030.

Oil was likely to account for 87 per cent of transport sector energy use, down from 95 per cent today, with bio-fuels filling most of the gap, and accounting for seven per cent of transport sector energy use, it forecast.



Robert Dudley, Group Chief Executive at BP.

BP said that global carbon dioxide (CO₂) emissions were likely to rise by about 28 per cent by 2030, slower than the current rate of energy demand growth, due to the rapid expansion of renewables and natural gas.

However, it observed that if more aggressive policies than currently envisioned were introduced, global CO₂ emissions could begin to decline by 2030.

By 2030, today's energy importers would need to import 40 per cent more than they did today, but the experience would vary by region.

In North America, efforts to reduce dependence on foreign supplies should show impressive results in the next couple of decades. Bolstered by supply growth from biofuels, as well as unconventional oil and gas, North America's energy deficit was expected to turn into a small surplus by 2030.

In contrast, Europe's energy deficit remained at current levels for oil and coal, but would increase by some two-thirds for natural gas, supplied by liquefied natural gas (LNG) and pipelines from the Former Soviet Union.

The report added that China's energy deficit across all fuels would widen more than five-fold, while India's deficit, mainly of oil and coal, would more than double in the period to 2030.



Ecuador refinery plan will boost output of refined oil products



Petroecuador's General Manager, Marco Calvopina (l), with Ecuador's President, Rafael Correa (r), and Minister of Non-Renewable Natural Resources, Wilson Pástor-Morris (c), at a signing ceremony in Quito, in January.

Petroecuador plans to invest around \$1.35 billion in Ecuador's main refinery, Esmeraldas, as part of a programme aimed at boosting the OPEC Member Country's output of refined products.

The national oil company's General Manager, Marco Calvopina, said the firm was investing \$750 million to make the refinery more efficient and to operate with less pollution. A further \$600m would be used to provide facilities that would enable Esmeraldas to produce higher-quality products.

"Production capacity at the refinery will not increase, but output will rise because it will be able to work at a faster pace and with lower costs," Calvopina was quoted as saying in an interview with Reuters at Petroecuador's Headquarters in Quito.

Oil imports to rise

The refinery, said to be currently working at about 90 per cent of its capacity, will go offline for a month in January next year, although output will decline by about half in the 12 months through July next year.

The work programme will mean that Ecuador will have to boost its fuel imports for a year, starting in August.

Calvopina disclosed that Petroecuador had a deal with Venezuela's state-run oil company, Petroleos de Venezuela SA (PDVSA), which would bring in more oil products, particularly diesel. They were also looking at other contract options.

He stated that Ecuador would need to borrow around \$400m to buy the products needed, adding that while the refinery was being overhauled, the country should be able to increase crude exports by about 50,000 b/d.

The revamping of the Esmeraldas refinery forms part of Petroecuador's plan to boost the domestic output of oil products to enable the country to eventually export fuels in the future, along with crude oil.

Said Calvopina: "Our aim is that, by 2015, we should be able to produce high-quality fuels and we will have a surplus to export."

The ambitious programme also includes the construction of the \$12.5bn Pacifico refinery, a joint venture project between Petroecuador and PDVSA that is slated to start production in 2015.

The Pacifico project is set to reduce domestic fuel costs for the country, which has to import oil products because of its current low refining capacity.

Once Pacifico is onstream, Petroecuador intends closing its La Libertad plant near the Pacific coast.

Also part of the development programme, Petroecuador plans to invest \$800m to overhaul the Shushufindi refinery in the Amazon region.

Meanwhile, Calvopina revealed that Petroecuador was in line to sign contracts that should enable it to boost production at two mature oil fields over the next 15 years.

He noted that oilfield services firm, Schlumberger, would invest in the Shushufindi oil field, while a consortium led by Argentina's Tecpetrol would invest in the El Libertador field.

The Shushufindi field currently has output of around 45,000 b/d of crude, which could rise to about 60,000 b/d in the future.



NOC planning to double output at Libya's largest refinery

Libya's Ras Lanuf refinery, the country's largest, which saw its production shut in during the troubles in the country last year, will restart operations within months.

"We are looking at getting it to start again in the next few months," according to Abdul Aziz Al Ghurair, whose Dubai-based company set up a joint venture — the Libyan Emirati Refining Company — with the Libyan National Oil Corporation (NOC) in 2009 to own and operate the plant.

He told reporters in the Libyan capital, Tripoli, that production at Ras Lanuf would also be expanded to double its current capacity.

At current full operation, the refinery can process up to 220,000 b/d of oil, accounting for more than half of the country's total oil refining capacity.

Refinery expansion

The refinery suffered some damage in last year's civil unrest and its reopening has suffered delays. The NOC had hoped to have the plant back onstream at the end of last year.

"While the current focus is on getting the refinery operational again, the aim is to expand it going forward. We are looking to double the capacity, so once we have

the expansion plan it should be doing 400,000 b/d," Al Ghurair, who was part of a trade delegation from the United Arab Emirates (UAE), was quoted as saying.

Al Ghurair, Chief Executive Officer of the Mashreq Bank in Dubai, said it would take around four years to complete the expansion at Ras Lanuf, although market conditions would actually dictate how quickly the expansion was completed.

Meanwhile, Nuri Berruien, Chairman of Libya's NOC, has said that with both the Es Sider and Brega oil terminals back on line, the next major challenge involved getting Ras Lanuf back into operation, possibly by the end of March.

He was quoted by the *International Oil Daily* as saying that work at the plant entailed getting the plant itself in working order after the damage it sustained during the disturbances, as well as the fields that normally supplied it.

Berruien stated that Libya's crude oil production continued to stand at about 1m b/d, with condensate output amounting to an additional 70,000–80,000 b/d

He reaffirmed that the NOC was still aiming to reach the country's pre-conflict production level by the middle of 2012.



The Ras Lanuf refinery.

Saudi Arabia would correct any market imbalance — SAMA Governor

The new Governor of the Saudi Arabian Monetary Agency (SAMA) has issued an assurance that the Kingdom would act to correct any imbalance in supply and demand, stating that he expected crude oil prices to remain stable.

Fahad Al-Mubarak, who was appointed head of SAMA, the Kingdom's central bank, in December last year, stressed that if there was any pressure on demand, Saudi Arabia would always be able to call on its excess production capacity to restore balance to supply and demand, as well as prices.

Addressing a news conference, he said the balance sheets of the Kingdom's commercial banks were very strong. They had only had very limited exposure to Europe

and Saudi Arabia would continue to ensure its banks were well-regulated

Al-Mubarak was speaking in Abu Dhabi at the inaugural meeting of the Financial Stability Board's regional consultative group for the Middle East and North Africa, which handles financial regulation.

"Saudi banks are complying with Basel II — as a matter of fact, they are already complying with most of the bank ratios of liquidity and capital adequacy of Basel III. The system of banks in Saudi Arabia was a very strong one well before I became Governor," he was quoted as saying.


Al-Mubarak, a former Chairman of Morgan Stanley Saudi Arabia, who succeeded Muhammad Al-Jasser as SAMA Governor, who had held the post for nearly three years, said his new role involved continuing with prudent macro measures to make sure the banks continued to be well-regulated and followed all the required rules and serve their purpose in the domestic economy.

Regarding the plan by the International Monetary Fund (IMF) to raise some \$600 billion in new resources to help countries deal with the fallout of the Euro-zone debt crisis, Al-Mubarak said he was not aware of any discussions about Saudi Arabia contributing more resources to the IMF in this regard.

"Saudi Arabia is a member of the IMF and the programmes continue to be discussed, but I do not know if there is any specific discussion related to the European fund," he was quoted as saying.

Meanwhile, Kuwait's Central Bank Governor, Sheikh Salem Abdul-Aziz Al-Sabah, said at the same news conference that banks in Kuwait had an average capital adequacy ratio of almost 19 per cent. The minimum required by Basel II was 12 per cent.

He said Kuwait banks were experiencing a huge level of liquidity, while the Central Bank had absorbed almost all surplus funds from the system to reduce any kind of negative impact.

"Provisions in the banking system are much more than the Central Bank requested," he added. 



Abu Dhabi's Masdar set to finalize plans for Noor-1 solar project in 2012



Abu Dhabi's state renewable energy firm, Masdar, is on course to complete its plans this year for a photovoltaic power station in the Emirate.

Noor-1, with a 100 megawatt capacity, will be the second large-scale solar project in Abu Dhabi. The first such scheme, the 100 MW Shams-1 facility, is scheduled to come on line in the second half of the year.

Frank Wouters, Masdar Director, was quoted as saying that the firm was working hard to get the solar plant plans finalized by the end of 2012.

However, speaking on the sidelines of a conference in Abu Dhabi, he stated that the final decision on the project was ultimately with the Emirate's Executive Council.

Established in 2006, Masdar is a commercially driven enterprise that operates to reach the broad boundaries of the renewable energy and sustainable technologies industry.

It supports the development, commercialization and adoption of pioneering technologies that will help tackle climate change, building a more sustainable future for the United Arab Emirates (UAE) and the global community.

Masdar has already potentially short-listed several companies for Noor-1 following bids made last year.

Total of France is understood to be one of the companies involved. It already possesses a 20 per cent share

of Shams-1 in a joint venture with Spain's Abengoa. Masdar, which aims to operate Noor-1, owns 60 per cent of the project.

Wouters disclosed that bidding firms were encouraged to lodge proposals that included acquiring half of their solar panels from Masdar's \$230 million manufacturing plant in Germany.

Reports say that Abu Dhabi is aiming to generate some seven per cent of its electricity needs from renewable energy by 2030, with solar making up most of the target.

Meanwhile, Masdar has also taken a step in the right direction regarding its carbon capture plans.

It is now seeking proposals for plants that will capture carbon dioxide (CO₂) that will then be injected into the Emirate's onshore Rumaitha field, operated by the Abu Dhabi National Oil Company (ADNOC).

However, Masdar's Chief Executive Officer, Sultan Al-Jaber, was quoted as saying that he did not think they would get an understanding on the pricing of the carbon until the end of 2012.

Speaking on the sidelines of the World Future Energy Summit in Abu Dhabi, he explained that Masdar was awaiting the outcome of engineering, procurement and construction proposals for its carbon capture facilities, which meant it could not arrive at an appropriate price.

With its proposed facilities, Masdar is looking to capture around 800,000 tons of emissions annually, most of which would be CO₂. It would then be compressed and delivered via pipeline to the Rumaitha field.

ADNOC is planning to boost oil output at Rumaitha from 40,000 barrels/day today to 70,000 b/d in 2014–15, which will be supported by CO₂ injection. ■■

Masdar's Chief Executive Officer, Sultan Al-Jaber.

In the course of his official duties, OPEC Secretary General, Abdalla Salem El-Badri, visits, receives and holds talks with numerous dignitaries.

This page is dedicated to capturing those visits in pictures.



Dr Y Seyyid Abdulai (l), former Director General of the OPEC Fund for International Development, visited Abdalla Salem El-Badri, OPEC Secretary General, on January 23, 2012.



Dr Daniel Yergin (l), Executive Vice President, Strategic Advisor and Chairman of IHS CERA, IHS Inc, visited the OPEC Secretary General, Abdalla Salem El-Badri, on January 23, 2012 (see also interview on p14).



Dr Ali Hamed Al-Mulla (c), Manager, Corp Environment and Sustainable Development at Qatar Petroleum, visited the OPEC Secretary General, Abdalla Salem El-Badri (r), on February 3, 2012. Here seen with Ali Abdulla Salatt (l) from Qatar Petroleum.

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 capture some snapshots of such visits.

Visits



Above: Students from the Graduate Institute Geneva, Anastassia Metral, who visited OPEC on January 16, 2012.



Above: Students from the Diplomatic Academy Germany who visited OPEC on January 18, 2012.

Outreach



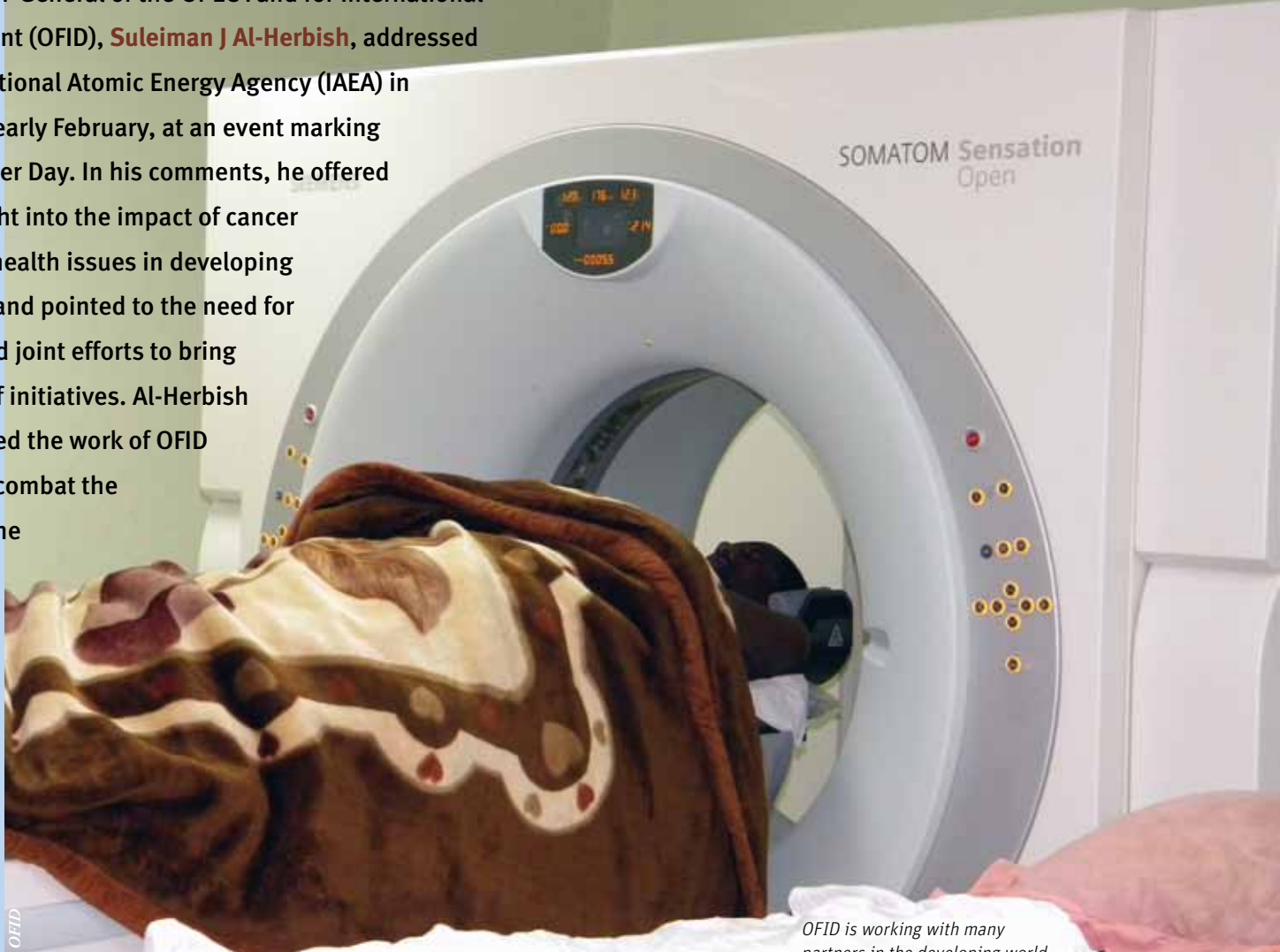
Left: Under OPEC's outreach programme, officials from the Organization visited the Simonsgasse Bilingual School in Vienna, on January 31, 2012.



Al-Herbish addresses IAEA on World Cancer Day

OFID continues fight to improve cancer treatment in developing world

The Director-General of the OPEC Fund for International Development (OFID), **Suleiman J Al-Herbish**, addressed the International Atomic Energy Agency (IAEA) in Vienna, in early February, at an event marking World Cancer Day. In his comments, he offered some insight into the impact of cancer and other health issues in developing countries, and pointed to the need for coordinated joint efforts to bring about relief initiatives. Al-Herbish also outlined the work of OFID in helping combat the effects of the disease.



OFID is working with many partners in the developing world to help ease the suffering of cancer patients.

OPEC Fund for International Development (OFID)

By 2020, cancer is expected to kill more than ten million people a year with almost 70 per cent of new deaths from the disease occurring in the developing world.

“Tragically, 40 per cent of these deaths could be prevented,” Suleiman J Al-Herbish, OFID Director-General, told delegates at the World Cancer Day gathering in Vienna, pointing to alarming figures released by the World Health Organization (WHO).

“For an institution like OFID, whose job it is to promote human and economic progress, such statistics are grave cause for concern — as, indeed, are all matters relating to the health status of the populations we work with,” he said in his address to the event, organized by the IAEA.

Growing burden

Al-Herbish stressed that cancer was a highly emotive subject and, globally, a heavy and growing burden, more so in the developing world.

Referring to the WHO data, he stated that, in 2008, about 12.7 million cancer cases were reported worldwide, 56 per cent of which were in developing countries. That same year, there were 7.6 million deaths from the disease.

“Almost two-thirds of these were in the developing world ... and the likely trend is for these figures to continue rising, due to population growth and increased longevity, among other factors,” he affirmed.

In emphasizing that good health was a basic building block of human progress, Al-Herbish stressed just how vital a strong, able-bodied population was to driving society forward.

“Chronic disease and ill-health undermine productivity. They prevent children from attending school and they hamper a woman’s ability to raise her family,” he observed.

And it was no coincidence, he added, that three of the eight Millennium Development Goals were directed at the health crisis in the developing world.

Giving details on the effects of the disease in the developing world, Al-Herbish said that unlike wealthier countries, where pre-cancer screening was an integral part of national healthcare programmes, such tests were scarce in countries with limited financial resources and expertise.

Zambia’s Cancer Diseases Hospital in Lusaka, built with the help of OFID funding, offers state-of-the-art facilities.





In many cases, by the time an individual sought medical treatment, he or she was already presenting late-stage symptoms, at which point, survival prospects were slim, he explained.

“Clearly, the challenges of battling cancer are enormous. In developing countries, especially, it’s about improving awareness and prevention, as well as early diagnosis and access to treatment,” he maintained.

Al-Herbish said radiotherapy equipment was in such short supply across Africa that in many countries patients were dying even when their cancer was curable.

As a result, cancer was claiming more lives every year than HIV/AIDS, malaria and tuberculosis combined. Breast cancer alone, one of the easiest cancers to treat if caught early, killed about 270,000 women every year in the developing world.

“This is shameful and something we must not allow to continue, for human dignity stands at the core of our shared responsibilities as development practitioners. The wider implications of such loss of life to social and economic progress should also not be disregarded,” he declared.

OFID support

Highlighting OFID’s battle against cancer, Al-Herbish said the institution had been working with many different partners in all developing regions of the world.

Between 2005 and 2009, for example, it gave substantial support to the King Hussein Cancer Centre in Jordan, which had established itself as a regional centre of excellence in cancer care in the Middle East.

“We have helped expand radiotherapy and nuclear medicine in Ghana. And we have provided a Da Vinci Surgical System for the National Cancer Centre in Egypt. We have also given several grants in support of screening, diagnostic and treatment initiatives in Palestine.”

The OFID Director-General said he had had the opportunity to visit some of these centres and hospitals and could testify to the excellent work that was being done in them.

“We are in discussions with the government of Sudan to assist in the upgrading of the Radiation and Isotope Centre in Khartoum. This facility is the only one of its kind in the country and, on completion, will treat 30,000 patients per year,” he told the meeting.

Al-Herbish paid tribute to the IAEA’s Programme of Action for Cancer Therapy (PACT), an initiative that had mobilized the international community against the global cancer epidemic and in which OFID had jointly taken part.

“In PACT, the Agency has made measurable progress in expanding the availability of radiotherapy services and improving cancer prevention and control throughout the developing world. For this, it has to be commended. And OFID, for one, is a proud ally in this effort,” he stated.

Al-Herbish noted that OFID had been a partner of the IAEA for many years, in fact since long before PACT was launched.

“Our cooperation has taken us to almost all corners of the globe — from Africa to Asia to Latin America and even Europe, where we worked together on a PACT initiative in Albania.”

In terms of grant assistance, he said, OFID had contributed to date some \$1.5 million to five IAEA projects. It had also given a direct loan of \$7.5m to Ghana for the expansion of cancer facilities, again with the support of the IAEA and PACT.

“Today, our two organizations will sign a new financing agreement for a cancer control initiative in Vietnam, which seeks to promote prevention and early detection of the disease, among other important goals,” revealed Al-Herbish.

He told delegates that one of OFID’s greatest joint successes involved the Cancer Diseases Hospital in the Zambian capital, Lusaka.

OFID had provided loans totaling close to \$12m for this facility, co-financing with the Zambian government its initial construction and follow-up expansion.

The Agency, meanwhile, had provided technical assistance for the training of medical staff and other capacity-building activities.

OPEC Fund for International Development (OFID)



Angela Leuken, IAEA

Although modest in terms of size, Lusaka's Cancer Diseases Hospital is making a big difference and seeing more and more patients pass through its doors.

Al-Herbish pointed out that Zambia had one of the highest cancer rates in Africa. Before the hospital opened in April 2007, patients faced slim survival prospects. There were no radiotherapy services, so patients had to go on a waiting list for treatment in Zimbabwe or South Africa.

“The cost of this was prohibitive. And even although it was subsidized by the government, less than ten per cent of patients needing treatment actually received it. By 2004, there were some 5,000 people on the waiting list,” he observed.

“How things have changed in a few short years! The new hospital is a state-of-the-art facility — the first national cancer hospital in the region outside of South Africa. It offers pioneering screening services, cutting-edge diagnostic and treatment equipment and a corps of highly-qualified medical specialists,” informed Al-Herbish.

In 2008, its first full year of operations, he said, the

establishment treated more than 1,000 new patients. In 2010, 1,800 new patients passed through its doors, many of them coming from as far afield as Angola, Botswana, Malawi and Tanzania.

“Thanks to the impetus provided by the hospital, the country is close to setting up a national cancer control programme that covers the five main pillars — screening, early detection, treatment, palliative care and research,” Al-Herbish noted.

“For Zambia to have progressed so far in such a brief space of time is an incredible achievement. And what is more, it is an outstanding example of cooperation — financial and technical cooperation from us, the donors, combined with the commitment of the Zambian government and the hospital staff.”

“On World Cancer Day, I cannot think of a better source of inspiration for our global campaign,” he concluded. 🗳️



Yemen:

Tackling poverty through educating the young

*Yemen, a least-developed country located on the Arabian Peninsula in the Middle East, has an impressive historic past. But today, there are many challenges with unemployment of its significantly young population running at over 50 per cent. OFID Information Officer, **Damelys Delgado**, looks at how education is helping to ease some of the nation's problems, especially with regard to poverty.*

Working toward modernization, while not discarding its customs and traditions, Yemen is facing many challenges.

The country is battling a growing water scarcity, with just one per cent of the land under irrigation.

Although this is the largest geographical obstacle, there are others equal in gravity: unemployment, for one, which is linked to the lack of skills of the labour force. For the youth, unemployment is at almost 53 per cent.

With roughly two million citizens, 25 per cent of the labour force in the capital city Sana'a is unemployed, despite the city being a gateway to Yemen, a historic cultural centre and a hub of commerce, services and tourism.

In 1986, Sana'a was declared a World Heritage Site by the United Nations because of its unique architecture, which dates back over 2,000 years.

According to recent statistics, Yemen's population has risen to 22.4 million, of which just over 23 per cent are aged 15–24. The country ranks 133rd out of 177 countries in the 2010 UN Development Programme (UNDP) Human Development Index.

Despite the efforts of the government, progress in human and other development indicators has been too slow to ensure attainment of the Millennium Development Goals by 2015.

However, the possibility of achieving the goals of universal primary education,

under-five child mortality reduction, and an end to malaria and tuberculosis has not been ruled out.

One of the highest priorities for the government is education. According to the census taken in 2008, literacy is estimated at 54.1 per cent, with a gender disparity of 35.7 per cent for females and 73.1 per cent for males.

This gender disparity is further emphasized when one looks at the ratio of male/female enrollment in vocational secondary schools and vocational training centres.

Of the 3,547 students enrolled in three-year vocational secondary schools in 2008, 3,184 (90 per cent) were male, compared with 363 (ten per cent) that were female.

Accordingly, to combat illiteracy and improve opportunities for all, basic education is a priority.

In 2002, the Ministry of Education adopted a national strategy known as the Basic Education Development Strategy (BEDS), which has involved a number of donors and stakeholders, including The OPEC Fund for International Development (OFID), the World Bank, The UN Children's Fund (UNICEF), the World Food Programme (WFP), the UN Educational, Scientific and Cultural Organization (UNESCO), the UN Population Fund (UNFP), the Japan International Cooperation Agency (JICA), the International Labour Organization (ILO), the German, British, Dutch and French governments and the European Union.

The objectives of BEDS include, among others, improving the quality of teaching, reforming the administration of schools, upgrading the curriculum, expanding school enrollment, enlarging school space for girls and building new establishments.

An increase in student enrollment necessitates the creation of approximately 7.2 million new student places in schools.

Since 1976, and in order to help Yemen advance on its long path to progress, OFID has supported some of country's efforts in several sectors, such as transport, water supply, energy, urban development and education, among others. As of July 2011, OFID commitments amounted to \$235 million.

Yemen's private sector has also benefited from OFID's

OPEC Fund for International Development (OFID)



support through loans to help in the development of industry.

Due to the fact that education is one of the most urgent matters to be addressed, the latest project approved by OFID's Governing Board in 2010 was the Vocational Training and Skills Development Project (VTSD).

This scheme is designed to improve skills development opportunities for the rural population, which constitutes 76 per cent of the total population.

Turki Al-Muaikil, Senior Operations Officer at OFID in charge of Yemen's projects and programmes for the public sector, summarized the social impact of the project.

He stated that there had been enrollment of around 9,000 children between the ages of 9–15 years in classes that would enable them to complete the equivalent of primary school education.

There was also the establishment of a youth vocational literacy component that would target some 4,000 unemployed youths aged 16–24 to empower them with vocational skills.

In addition, there had been the provision of training for 4,000 women in the areas of literacy proficiency, vocational training and business skills development.

Above: Two ladies engaged in the shaving and engraving of wood at a vocational training centre in Sana'a.

Al-Muaikil stressed that the scheme constituted an important step in the provision of real solutions for Yemen's people.

With a total cost of \$21.59m, the VTSD is co-financed by the Islamic Development Bank, the Government of Yemen and OFID, whose share is 42.15 per cent.

In addition to the financial component, the social component is also relevant.

As Al-Muaikil explained: "This is a unique project which embraces many components to improve the employability of youth, the empowerment of women and strengthening capacity-building for the poorest."


OFID's contribution to the country's development began in 1976 with a balance of payments loan to support an education/training project. This was followed by many successful and completed projects in vocational, technical training and social fund development, as well as skills development schemes for young Yemenis.

Since then, OFID's assistance in education has been disseminated throughout the 250 vocational and technical training centres located across the country, to help in reducing poverty by increasing literacy and employment opportunities.

Some of the benefits have included enabling children to return to school after completing non-formal basic education, or to join a youth vocational training programme.

In this way, youths are provided with practical vocational skills that will enable them to join the labour market and provide women with training to develop economic activity to help support their families.

Just as water is basic to life, education is basic to progress because it provides life-giving support for societal development.

OFID is committed to supporting Yemen and its young population. Through its support, it is helping to offer the promise of a better future for the people in one of the world's least-developed countries. 



Above: Yemeni architect Ali Qaid demonstrates his high skill in cutting special stones to be used in building decoration.

This section includes highlights from the OPEC Monthly Oil Market Report (MOMR) for February 2012, 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), provided OPEC is credited as the source for any usage.

Crude oil price movements

In January, the OPEC Reference Basket increased to \$111.76/b, the highest monthly average since April last year.

The rise in the Basket in January, a trend that had started in the last days of the previous month, was supported by bullish and better-than-expected United States economic data and revived geopolitical tensions in the Middle East, which boosted the risk premium on crude oil prices.

A weakening of the US dollar against the euro provided some support; however, fears over weakening demand growth, stemming from concern about Europe's economy and credit downgrades to some key European countries, limited the gains.

On a monthly basis, the OPEC Reference Basket increased \$4.42, or 4.1 per cent, over December. Compared with the same month a year ago, the Basket was up \$18.96/b, or 20 per cent.

All the Basket's components improved in January, with Venezuela's Merey showing the most significant increase amid improving elements

of the grade's pricing formula. Merey increased by \$6.33, or 6.22 per cent, over the month.

Middle Eastern light, medium and heavy grades showed the next highest gains, with noticeably better global performances of benchmark crudes in these grade ranges. Both Iran Heavy and Kuwait Export improved by \$4.94, while Arab Light and Basrah Light increased by \$4.86 and \$4.15, respectively. Qatar Marine and Murban increased by slightly lower amounts, up \$3.42 or 3.15 per cent.

Taken together, Brent-related crudes Saharan Blend, Es Sider and Bonny Light improved by 2.4 per cent to average \$111.93/b, an increase of \$2.62, the lowest improvement over the previous month among all Basket components. Ecuador's Oriente registered a gain of \$3.12, or three per cent, for a monthly average of \$104.11/b.

In early February, the OPEC Basket maintained its upward momentum, continuing to average above the key \$110/b and settling at \$115.18/b on February 8.

Both crude oil futures markets ended January with gains. Front-month WTI settled above the key \$100/b price for the first time

since the disruption in Libyan exports in May last year.

Meanwhile, ICE Brent reversed the losses of the previous month and witnessed the highest positive month-to-month movement in more than eight months.

Better-than-expected, bullish US economic data was a major factor behind the rise in prices in January. Moreover, revived geopolitical tensions in the Middle East boosted the risk premium on crude oil prices.

A weakening of the US dollar against the euro provided some support. Nevertheless, fears over demand growth, stemming from concern about Europe's economy and credit downgrades to some countries, limited the gains.

On the Nymex, front-month WTI improved by \$2.15 to average \$100.82/b in January, while ICE Brent increased by a sizeable \$4.06 to average \$111.78/b, the highest level for six months.

Compared with January last year, WTI was up by 12.6 per cent and ICE Brent by 15.4 per cent.

In the first week of February, crude oil futures prices, particularly ICE Brent, kept their momentum, with Nymex WTI settling above

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 AJ), Bonny Light (Nigeria), Qatar Marine (Qatar), Arab Light (Saudi Arabia), Murban (UAE) and Merey (Venezuela).

\$100/b and ICE Brent moving above \$115/b. On February 8, ICE Brent stood at \$117.20/b and Nymex WTI at \$98.71/b.

Commodity markets

The World Bank energy commodity price index (crude oil, natural gas and coal) rose by 2.5 per cent month-on-month in January. Although the Henry Hub (HH) natural gas price index plummeted by 15 per cent m-o-m, the crude oil index and coal prices increased by 2.7 per cent and five per cent, respectively.

The HH natural gas price plummeted further after its two per cent fall in December. The price stayed under pressure from high storage levels and milder winter weather. The dramatic drop in the price led to some producers announcing planned cuts in production and/or drilling in January, but this failed to materialize.

Inventories were at record levels and, despite a cold spell, a revival of HH natural gas prices seemed to require a supply response from producers or the power sector.

The World Bank index for non-energy commodities increased by 2.9 per cent m-o-m in January, reversing the 2.7 per cent drop seen in December. This was supported mostly by grains and, especially, base metal prices.

The modest recovery in commodity prices is related to the somewhat improved outlook for the global economy. Continued growth momentum in the US, as well as an expected soft landing for the Chinese economy, provided support to most commodity markets. Strong fundamentals also played a role, particularly in the case of base metals.

The Agricultural Commodity price index rebounded by two per cent m-o-m in January, compared with a decline one month earlier, on a revival in corn, soybean, wheat and other items.

Base metal prices rebounded by six per cent m-o-m in January, after a one per cent drop the previous month. The upward move across the complex was related to better macroeconomic data, especially evidence of a stabilization in the global industrial sector at the beginning of

the year, combined with strong fundamental data.

Nevertheless, the outlook for base metals will rely on two factors, namely, the persistence of a global growth momentum and the performance of the Chinese economy, with a soft landing likely to sustain prices.

Copper prices posted a six per cent m-o-m gain in January, after a slight fall the previous month, to reach their highest level since September last year. The revival in copper prices was linked to a seven per cent m-o-m drop in inventories at the London Metal Exchange (LME).

Aluminium prices increased by six per cent m-o-m in January, compared with a 2.8 per cent drop in the previous month. Aluminium prices were supported by the more favourable macroeconomic outlook and falling inventories at the LME.

Gold prices rose by 0.6 per cent m-o-m in January, compared with a five per cent m-o-m fall in December, driven by some slight dollar depreciation and low real interest rates, which are expected to persist, following the US Federal Reserve Board's announcement that the federal funds' rate target will remain unchanged up until at least late-2014. The gold price is also expected to reach new highs, due to uncertainties in the financial markets, sovereign debt concerns, and inflationary pressures.

World oil demand

Demand for OPEC crude in 2011 remained unchanged from the previous assessment, as both non-OPEC supply and world oil demand saw a similar downward adjustment of around 20,000 b/d each, leaving demand for OPEC crude unchanged.

At 30.1m b/d, demand for OPEC crude stood 400,000 b/d above the 2010 level. The first and second quarters saw growth of 900,000 b/d and 200,000 b/d, respectively, while the third quarter is estimated to have remained unchanged. The fourth quarter is seen to have shown growth of 400,000 b/d, compared with the same period the previous year.

Demand for OPEC crude in 2012 is projected to average 30.0m b/d, about 100,000 b/d lower than in the previous report, driven mainly by a downward revision to demand, outweighing a marginal lower revision in non-OPEC supply.

In quarterly terms, the first quarter sees the bulk of the adjustment, being revised down by 300,000 b/d, followed by 100,000 b/d downward revisions to the second and fourth quarters, while the third quarter remains unchanged from the previous assessment.

Required OPEC crude is forecast to show a decline of 100,000 b/d from the previous year. The first and third quarters are estimated to see negative growth of 100,000 b/d, while the second quarter is expected to see negative growth of 200,000 b/d and the fourth quarter is expected to remain unchanged.

Meanwhile, recent economic setbacks have pushed the future forecast of world oil demand further down. Worries about the US economy, along with the EU debt problem, are adding more uncertainty to world oil needs over the next 12 months.

“Demand for OPEC crude in 2012 is projected to average 30.0m b/d, about 100,000 b/d lower than in the previous report ...”

As a result, the world oil demand forecast has been revised down by 120,000 b/d for 2012. Furthermore, retail petroleum prices have led to a further reduction in transport fuel usage.

A halt in operations in Japanese nuclear plants is strengthening oil consumption and the country is expected to use crude and fuel oil to operate some of its other power plants this year.

Non-OECD regions, especially China, India, the Middle East and Latin America, are expected

to assume most of the forecast growth in oil use worldwide this year.

In summary, waning OECD economies are affecting the oil market negatively and imposing a large amount of uncertainty for the short term.

Firming retail petroleum prices are expected to have a negative impact on oil demand across the globe. The transportation and industrial sectors are the ones most affected.

The use of oil in both sectors is slowing noticeably worldwide. World oil demand growth is forecast at 900,000 b/d in 2012, and there is no change to the estimate for 2011.

The latest monthly oil consumption data for the US shows a 1.0 per cent year-on-year

“The OECD Europe oil demand forecast for 2012 shows a further contraction of 170,000 b/d, averaging 14.2m b/d.”

contraction in November, slightly lower than the typical pattern observed during the second and third quarters of the year.

The use of transportation fuels and especially gasoline accounted for the bulk of this contraction, while strong growth in distillates had a moderating effect on a portion of this decrease.

Moreover, the consumption of residual fuel oil also contracted during November, while jet/kerosene demand was up by two per cent y-o-y.

Preliminary weekly data for December 2011 and January 2012 shows even stronger contractions in US oil consumption.

Transportation fuels constitute the product category most affected, while industrial fuels are also influenced by the still weak pace of growth in the US economy.

Furthermore, the whole of 2011 shows y-o-y consumption decreasing for all product categories, with the only exceptions being distillate fuel oil and jet fuel. Motor gasoline and residual fuel oil show the deepest contractions.

The signs for US oil consumption for 2012 remain rather pessimistic and are dependent upon developments in the economy.

The very short-term forecast indicates a deeper decline in petroleum product use, at least for the first half of the year. The US oil demand growth forecast has been revised down for the year by 75,000 b/d.

US vehicle sales continued to rise strongly, up 11 per cent in January y-o-y. This is the highest rate since the government's incentives programme 'cash for clunkers' was introduced in 2009.

Newly introduced vehicle models, low interest rates, better loan availability, aging car replacement and stable motor fuel prices helped buyers overcome lingering worries about the economy.

As seen before, the bulk of vehicles sold were trucks and SUVs, as a result of their relatively low prices, compared with smaller cars.

Canadian data shows that vehicle sales in Canada grew by a powerful 15.4 per cent in January y-o-y. This was the fourth month in a row resulting from low interest rates.

And, according to the Mexican Automobile Industry Association, Mexico's auto sales, production and exports grew robustly for the whole of 2011 – by ten per cent, 13 per cent and 15 per cent, respectively.

Mexican auto production during 2012 is expected to grow at a similar pace. Some downside risks, however, are the slowing economies in both Europe and the US, which could influence the main export markets for the country and thus affect overall Mexican auto output.

European oil consumption contracted again in December for the fourth month in a row. During 2011, it shrank by 200,000 b/d, reflecting the weak economy in that region.

December oil consumption in the European 'big four' – Germany, France, Italy and the UK – fell, as a result of decreasing demand in transportation fuels and weak industrial activity. It

plunged by 150,000 b/d in December, compared with December 2010.

Big four oil consumption of transportation and industrial fuels continued to show the worst decline, as a result of slowing industrial activity. The short- and medium-term development of European oil consumption will be determined most of all by the region's continuing debt problems.

The OECD Europe oil demand forecast for 2012 shows a further contraction of 170,000 b/d, averaging 14.2m b/d.

According to the latest figures from the European Automobile Manufacturer's Association (ACEA), European new passenger car registrations continued to decrease, at -6.4 per cent, in December y-o-y.

Germany was the only major European market which grew, at 6.1 per cent, while other markets experienced decreases, ranging from -17.7 per cent in France to -3.6 per cent in Spain. The Italian market also contracted sharply, at -15.3 per cent, while, in the UK, car sales fell at -3.7 per cent y-o-y.

For the whole of 2011, most 'significant' markets experienced major declines. The declines were lower in France, at -2.1 per cent, and the UK, at -4.4 per cent. As a result of economic concern, the Spanish and Italian markets contracted sharply, at -17.7 per cent and -10.9 per cent, respectively.

Germany was the exception, as demand for new cars grew by approximately nine per cent during 2011. The German auto market is the largest in the region, with over three million new registrations, followed by France with over two million and the UK with a capacity of almost two million.

South Korea's oil demand grew strongly last year, at 0.9 per cent y-o-y. This occurred despite negative oil demand in most OECD regions. This growth was attributed to industrial demand for naphtha, which pushed the country's consumption up by 7.1 per cent y-o-y. According to the latest data, the country's diesel demand inched up by 0.05 per cent.

In Japan, the latest December monthly data is dominated by a strong increase in crude direct-use resulting from nuclear plant

shutdowns. Power plants were using crude, fuel oil and LNG for electricity power-generation.

Moreover, driven by increased mileage, transportation fuel consumption increased, while all other product categories were on the decline. As a consequence of the shutdown in the majority of Japanese nuclear plants, direct crude burning for electricity production is expected to increase further throughout 2012.

OECD Pacific oil consumption grew by 100,000 b/d during 2011. With the effect of Japanese oil use, the region's oil demand is also expected to grow slightly in 2012, at 30,000 b/d, although the projections are heavily dependent on whether and when the nuclear plants will resume operations.

Driven by strong tax incentives and subsidies, as well as with a low baseline, Japanese auto sales continued to rise strongly in January, by 36 per cent, following a very strong fourth quarter of 2011.

Government incentives favoured special vehicles such as hybrids, pure electric cars and other vehicles that employ advanced clean diesel engines. The high growth in December also reflected the low base during 2010.

In contrast, South Korean car sales during December posted double-digit declines. Korean car sales are projected to fall during 2012, due to a slowing economy and high competition resulting from a free trade deal with the US taking effect in early 2012.

India's November petroleum product sales were up, as a result of domestic price hike expectations. This caused the highest growth since June 2009. Consequently, December oil product sales were moderate.

Diesel demand in December grew by six per cent y-o-y, adding another 85,000 b/d to the total diesel use pool. Diesel usage is the largest in India, averaging 1.5m b/d. Gasoline demand also grew, by 44,000 b/d, in the same month. Oil demand grew by 2.3 per cent, or 86,000 b/d, in December y-o-y.

Given the cautious sentiment surrounding the country's future economic activity, India's oil demand is seen growing at a more moderate pace than last year. For 2012, oil demand is expected to increase by 120,000 b/d.

According to the Society of Indian Automobile Manufacturers (SIAM), domestic passenger car sales increased by 8.5 per cent during December y-o-y. Various discount offers helped to partially offset weaker demand for car sales, which slowed in the second half of last year, due largely to high borrowing costs and relatively high motor fuel prices.

Given the effect of not only increasing business travel, but also industrial and home energy, Hong Kong oil demand for kerosene grew sharply in November, adding another 114,000 b/d to total oil use. The country's total oil demand grew by 38 per cent in November y-o-y. However, this is not expected to continue in 2012.

Taking into account the slowdown in Indian oil demand, Other Asia oil demand growth is forecast to be slightly lower than last year, reaching 200,000 b/d, to average 10.7m b/d.

Saudi Arabia is the largest oil-consuming country in the region and also has the highest annual growth. Given its energy-intensive projects, Saudi oil demand grew by more than 100,000 b/d in 2011. The sectors that consume the most oil are transportation and power plants.

This trend is expected to continue throughout the year. Despite declining oil usage in Iran, Middle East oil demand is forecast to grow by 2.4 per cent in 2012.

The seasonality that plays a major role in oil consumption in the Middle East occurs during the summer season, pushing third-quarter oil demand higher than in any other quarter of the year.

Brazilian oil demand growth in the first quarter of this year is expected to be at a similar rate as in the last quarter. Healthy demand in Venezuela and Argentina is helping to push Latin America's total demand into a growth mode, at 2.7 per cent, in 2012.

Of course, one of the dominant product uses in Brazil is the use of alcohol in transportation fuel. Oil demand growth in Latin America is expected to be fairly well distributed among all four quarters of the year, with transport and industrial being the two sectors that would use more oil throughout the year.

Oil demand growth in the developing

countries is forecast at 600,000 b/d y-o-y, to average 28.2m b/d in 2012.

Chinese oil imports in December were not consumed entirely but were partially stored in the country's newly built oil-storage facility. Around 300,000 b/d of the country's oil imports were stored for future use.

China's oil demand was 9.3m b/d in December, denoting growth of 510,000 b/d y-o-y. As a result of transportation demand, both diesel and gasoline consumption grew sharply. Gasoline consumption was 1.9m b/d in December, indicating growth of 6.4 per cent y-o-y.

Use of diesel, the largest consumed product, reached 3.7m b/d in December. The transport, industrial and petrochemical sectors contributed the most to oil use.

China's oil demand for the whole of 2011 grew by 460,000 b/d, or five per cent, y-o-y. This trend is expected to continue this year, with growth forecast at 400,000 b/d y-o-y.

Data from the China Association of Automobile Manufacturers (CAAM) showed

“Oil demand growth in the developing countries is forecast at 600,000 b/d y-o-y, to average 28.2m b/d in 2012.”

that the country's automobile sales increased slightly, by 1.4 per cent, in December. Growth in passenger vehicles was around four per cent lower than in previous months. During 2011, Chinese auto sales rose by only 2.5 per cent, following more than 32 per cent growth in 2010. This was the lowest growth rate in the last decade.

The European debt crisis is not expected to affect Russian economic activity. The FSU's oil demand growth is forecast at 100,000 b/d in 2012 y-o-y.

Not only is the transport fuel sector expected to see high demand, but also the industrial sector as well. This is expected to put pressure on naphtha, diesel and gasoline demand for the entire year.

World oil supply

Preliminary figures for the month of January indicate that world oil supply averaged 89.87m b/d, an increase of 460,000 b/d over the December 2011 figure, with OPEC's crude share put at around 34 per cent. The estimate is based on preliminary data for non-OPEC supply, estimates for OPEC NGLs and OPEC crude production from secondary sources.

“... in January, world oil supply averaged 89.87m b/d, an increase of 460,000 b/d over the December 2011 figure, with OPEC's crude share put at around 34 per cent.”

Meanwhile, non-OPEC oil supply is estimated to have averaged 52.40m b/d in 2011, an increase of 100,000 b/d over the previous year, indicating a downward revision of 20,000 b/d, compared with the previous report.

On a regional basis, North American oil supply experienced the highest increase among all non-OPEC regions in 2011. On a country basis, the United States, Canada, Colombia and Russia experienced the largest growth, while the United Kingdom, Norway, Azerbaijan and Yemen had the biggest declines.

On a quarterly basis, non-OPEC supply last year is estimated to have averaged 52.77m b/d, 51.96m b/d, 52.08m b/d and 52.77m b/d, respectively.

In 2011, non-OPEC supply levels disappointed most analysts, with the initial supply

forecast reaching growth of almost 700,000 b/d in early 2011. During the first quarter, non-OPEC supply experienced healthy growth of 600,000 b/d, compared with the same quarter of 2010. The registered growth suggested an optimistic outlook for the rest of the year. However, many factors had a negative impact on growth after that, and a series of downward revisions dominated the forecasts for non-OPEC supply beyond the first half of the year.

Technical difficulties negatively influenced production in various locations, such as in the North Sea, China, Azerbaijan and Brazil. The estimated decline in OECD Western Europe in 2011 is the highest in percentage terms for the past six years. Furthermore, political factors affected oil output in 2011, mainly in Yemen, Syria and Sudan. Other issues, such as weather and environment factors, also affected production in 2011.

Meanwhile, non-OPEC supply in 2012 is expected to increase by 680,000 b/d over the previous year to average 53.07m b/d, indicating a minor downward revision of 30,000 b/d, compared with the previous month. The downward revision came on the back of changes to the base supply figure, as well as to adjustments to individual countries' supply profiles.

Non-OPEC oil supply in 2012 is seen as being driven by growth in Latin and North America, as well as in the Former Soviet Union (FSU). Furthermore, supply difficulties that hindered output in 2011 are expected to ease in 2012 and slow the decline in OECD Western Europe.

A combination of recovery from 2011 outages and continuing growth by key producers is expected to set the tone for 2012 non-OPEC output. Political volatility will also be a major factor shaping the outcome of non-OPEC supply in 2012, in addition to the usual risk factors, such as weather and policies.

On a regional basis, Latin America is forecast to enjoy the highest supply growth in 2012 among all non-OPEC regions, followed by North America. In terms of decline, OECD Western Europe and the Middle East are expected to suffer the biggest drops in 2012.

Oil prices will play a major role in the

materialization of non-OPEC supply in 2012, as price levels in 2011 supported many operators in increasing capital expenditure (capex) and in their production.

On a quarterly basis, non-OPEC supply in 2012 is expected to average 53.05m b/d, 52.92m b/d, 52.98m b/d and 53.34m b/d, respectively.

Total OECD oil supply is forecast to increase by 200,000 b/d in 2012, vis-à-vis the previous year, to average 20.26m b/d, indicating a minor upward revision of 15,000 b/d, compared with the previous report.

The upward revision was driven by adjustments carried over from historical data, as well as some changes to supply elements that affected the production forecasts of the US, Canada, Norway, the UK and Australia.

The OECD supply profile remains unchanged, with strong growth expected from North America, while the decline is seen to continue in Western Europe and the OECD Pacific is anticipated to remain relatively steady in 2012.

On a quarterly basis, OECD oil supply this year is expected to stand at 20.34m b/d, 20.20m b/d, 20.14m b/d and 20.35m b/d, respectively.

According to preliminary data, the region's supply averaged 20.18m b/d in the second half of 2011, an increase of 230,000 b/d over the same period of 2010.

North America's oil supply is projected to increase by 260,000 b/d over 2011 to average 15.74m b/d in 2012, indicating an upward revision of 60,000 b/d, compared with the previous month. The oil supply outlook remains relatively unchanged from the previous month, with the US and Canada expected to add volume, while Mexico is seen to experience a decline in 2012.

On a quarterly basis, North American oil supply in 2012 is expected to stand at 15.69m b/d, 15.70m b/d, 15.73m b/d and 15.83m b/d, respectively.

Oil supply from the US is projected to increase by 170,000 b/d in 2012, the second-highest among non-OPEC countries, to average 9.17m b/d, following an upward revision of 30,000 b/d from the previous report.

On a quarterly basis, US oil supply this year is seen to stand at 9.13m b/d, 9.14m b/d, 9.16m b/d and 9.24m b/d, respectively.

Canadian oil supply is anticipated to increase by 150,000 b/d over the previous year to average 3.69m b/d in 2012, indicating an upward revision of 40,000 b/d, compared with the previous report.

On a quarterly basis, Canada's oil supply this year is expected to average 3.66m b/d, 3.68m b/d, 3.70m b/d and 3.72m b/d, respectively.

Oil supply from Mexico is forecast to decline by 60,000 b/d from the previous year to average 2.88m b/d in 2012, unchanged from the previous month.

On a quarterly basis, Mexico's oil supply this year is seen to stand at 2.91m b/d, 2.87m b/d, 2.88m b/d and 2.86m b/d, respectively.

OECD Western Europe's oil supply is anticipated to decline by 90,000 b/d, the largest decline among all non-OPEC regions, to average 3.98m b/d in 2012, indicating a downward revision of 20,000 b/d, compared with the previous report.

The expected decline is slower than the drop experienced in 2011, as the supply difficulties encountered then are seen to lessen in 2012 and support output. The downward revision was introduced to adjust for historical revisions, mainly for the UK and Norway.

OECD Western Europe is seen to have quarterly supply in 2012 of 4.36m b/d, 4.14m b/d, 4.03m b/d and 4.20m b/d, respectively.

Oil supply from Norway is expected to drop by 80,000 b/d to average 1.96m b/d in 2012, indicating a minor downward revision of 10,000 b/d, compared with the previous month.

On a quarterly basis, Norwegian oil supply this year is anticipated to average 2.05m b/d, 1.92m b/d, 1.89m b/d and 1.98m b/d, respectively. As per preliminary data, Norway's oil supply averaged 2.03m b/d in the fourth quarter of 2011.

The UK's oil supply is estimated to decline by 20,000 b/d to average 1.10m b/d in 2012, indicating a downward revision of 15,000 b/d, compared with the previous month.

On a quarterly basis, the UK's oil supply this year is seen to average 1.16m b/d, 1.10m b/d, 1.05m b/d and 1.10m b/d, respectively.

OECD Pacific oil supply is seen to increase by 30,000 b/d in 2012 to average 540,000 b/d,

indicating a downward revision of 30,000 b/d, compared with the previous report. This downward revision is due to changes to Australia's supply outlook.

On a quarterly basis, OECD Pacific total oil supply this year is estimated to average 510,000 b/d, 560,000 b/d, 560,000 b/d and 530,000 b/d, respectively.

Australia's oil supply is expected to increase by 30,000 b/d in 2012 to average 450,000 b/d, indicating a downward revision of 30,000 b/d from the previous month.

On a quarterly basis, Australian oil supply this year is seen to stand at 420,000 b/d, 470,000 b/d, 470,000 b/d and 440,000 b/d, respectively.

Total Developing Country (DC) oil supply is projected to grow by 240,000 b/d to average 12.89m b/d in 2012, indicating a downward revision of 35,000 b/d from the previous month.

Most of the historical revisions basically offset each other, while changes to the forecast for 2012 led to the downward revision. The Middle East supply outlook saw a marginal downward revision, while the majority of the revision came from Africa's supply outlook.

The DC supply forecast indicates strong growth from Other Asia and Latin America, while Africa and the Middle East are expected to see declines. Latin America remains the region with the highest expected growth in 2012 among all non-OPEC regions.

The DCs' share of non-OPEC supply is seen to remain steady for the year, as per the forecast, at 24 per cent, yet this group's contribution to non-OPEC supply growth is seen higher than that of the OECD, or the FSU.

The risk associated with the DC supply forecast remains on the high side, given the various political issues connected with some of the producers in the group, in addition to other technical, environmental and weather-related factors. DC supply growth in 2012 is expected to be gradual throughout the year.

On a quarterly basis, total DC oil supply this year is expected to average 12.80m b/d, 12.87m b/d, 12.94m b/d and 12.97m b/d, respectively. During the fourth quarter of 2011, DC supply declined by 50,000 b/d, compared

with the same period of 2010, as per preliminary data.

Other Asia's oil supply is estimated to increase by 60,000 b/d and average 3.67m b/d in 2012, unchanged from the previous report. Growth is expected to be supported by India and Vietnam, while Indonesia and Malaysia's oil supply is expected to encounter minor declines.

Vietnam's oil supply is projected to increase by 40,000 b/d in 2012 to average 390,000 b/d, flat from the previous month, while India's oil supply is anticipated to increase by 20,000 b/d to average 910,000 b/d. Thailand's oil supply is anticipated to remain steady and average 330,000 b/d, unchanged from the previous evaluation.

Malaysia's oil supply is forecast to experience a minor decline of 10,000 b/d in 2012 to average 630,000 b/d, flat from the previous report, while Indonesia's oil supply is expected to average 910,000 b/d in 2012, a decline of 10,000 b/d and representing a minor upward revision of 10,000 b/d from the previous report.

“Latin America’s oil supply is predicted to increase by 270,000 b/d to average 5.06m b/d in 2012, flat from the previous report.”

On a quarterly basis, Other Asia's oil supply this year is seen to average 3.66m b/d, 3.66m b/d, 3.67m b/d and 3.68m b/d, respectively.

Latin America's oil supply is predicted to increase by 270,000 b/d to average 5.06m b/d in 2012, flat from the previous report. The supply growth outline for Latin America continues with the outlook for strong increases from Brazil and Colombia, while the rest of the region's producers remain steady during the year.

On a quarterly basis, Latin American oil sup-

ply this year is estimated at 5.00m b/d, 5.03m b/d, 5.09m b/d and 5.12m b/d, respectively.

Argentina's oil supply is expected to drop by 10,000 b/d to average 720,000 b/d, while Colombia's oil supply is forecast to increase by 100,000 b/d to average 1.02m b/d.

Brazil's oil supply is seen to grow by 170,000 b/d in 2012, the highest level among all non-OPEC countries, to average 2.86m b/d, unchanged from the previous report.

On a quarterly basis, Brazil's oil supply this year is expected to stand at 2.82m b/d, 2.83m b/d, 2.88m b/d and 2.90m b/d, respectively.

Middle East oil supply is forecast to average 1.61m b/d in 2012, a decline of 60,000 b/d from 2011 and a minor downward revision of 10,000 b/d, compared with the previous month.

“Total OPEC crude oil production averaged 30.90m b/d in January, the highest level since October 2008 ...”

This revision affected Oman's oil supply outlook and came as a carried-over adjustment to historical data. Oman remains the only country in the region where output is expected to increase in 2012.

Syria's oil supply is anticipated to decline by 130,000 b/d to average 250,000 b/d, while Yemen's oil supply is seen to average 210,000 b/d, relatively steady from the previous year.

On a quarterly basis, Middle East oil supply in 2012 is expected to average 1.61m b/d for all quarters.

Africa's oil supply is forecast to average 2.56m b/d in 2012, representing a drop of 20,000 b/d from the previous year and a downward revision of 25,000 b/d, compared with the previous month.

Sudan's oil supply saw a downward revision

of 30,000 b/d, while Ghana's oil supply encountered a downward revision, due to technical difficulties that are delaying peak production at the Jubilee oil project to 2013.

On the other hand, Cameroon's oil supply is expected to increase by around 30,000 b/d, supported by developments, such as the Dissoni project.

On a quarterly basis, Africa's oil supply this year is seen averaging 2.53m b/d, 2.57m b/d, 2.57m b/d and 2.56m b/d, respectively.

Total FSU oil supply is forecast to average 13.41m b/d in 2012, an increase of 140,000 b/d over 2011, indicating a minor downward revision of 10,000 b/d, compared with the previous report.

Growth is expected from all major producers in the region. Expected growth for the year is 55 per cent lower than the average supply growth seen in the last five years. Limited new developments, coupled with declines in mature areas, as well as transportation and fiscal issues, have reduced the anticipated growth in the FSU in 2012.

However, the FSU remains the leading region, in terms of production among all non-OPEC regions. FSU production is expected to maintain a 25 per cent share of global output for the year. On a quarterly basis, total oil supply from the FSU in 2012 is seen to average 13.41m b/d, 13.36m b/d, 13.40m b/d and 13.47m b/d, respectively.

Russian oil supply is projected to increase by 70,000 b/d to average 10.34m b/d in 2012, representing a minor upward revision of 10,000 b/d from the previous month.

On a quarterly basis, Russian oil supply this year is expected to average 10.33m b/d, 10.32m b/d, 10.35m b/d and 10.36m b/d, respectively.

Preliminary figures indicate that Russian oil supply stood at 10.36m b/d in January, slightly higher than in the previous month.

Kazakhstan's oil supply is seen to increase by 40,000 b/d to average 1.64m b/d in 2012, indicating a downward revision of 10,000 b/d from the previous evaluation.

On a quarterly basis, Kazakh oil supply this year is seen to average 1.65m b/d, 1.62m b/d, 1.63m b/d and 1.66m b/d, respectively.

Azerbaijan's oil supply is predicted to increase by 20,000 b/d in 2012 to average 990,000 b/d, 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 1.00m b/d, 970,000 b/d, 980,000 b/d and 1.00m b/d, respectively.

Oil supply from China is anticipated to increase by 30,000 b/d over 2011 to average 4.17m b/d in 2012, unchanged from the previous month.

On a quarterly basis, China's oil supply this year is seen to average 4.17m b/d, 4.16m b/d, 4.17m b/d and 4.21m b/d, respectively.

Other Europe's oil supply in 2012 is expected to experience a minor increase of 10,000 b/d to average 150,000 b/d.

OPEC oil production

Total OPEC crude oil production averaged 30.90m b/d in January, the highest level since October 2008, which indicates a marginal increase of 56,000 b/d from the previous month, according to secondary sources.

OPEC crude oil production experienced an increase from Libya, Kuwait, and Iraq, while crude output from Saudi Arabia, Iran, and the United Arab Emirates (UAE) experienced a decline.

OPEC crude oil production, not including Iraq, averaged 28.15m b/d, up by 26,000 b/d from December 2011.

Meanwhile, output of OPEC NGLs and non-conventional oils are forecast to average 5.65m b/d in 2012, growing by 360,000 b/d over the previous year.

In 2011, production of OPEC NGLs and non-conventional oils are estimated to have averaged 5.29m b/d, an increase of 390,000 b/d over 2010.

Downstream activity

Tighter supply, following the closure of several refineries in the Atlantic Basin, caused product markets to exhibit a sharp recovery in January,

despite weak demand in the region. This situation, along with additional support from stronger demand in Asian countries, allowed refinery margins to increase across the globe.

The margin for WTI crude on the US Gulf Coast recovered in the month under review, showing a sharp rise of \$8 to stand at around \$20/b in January, on the back of gains across all parts of the barrel. The most interesting development was seen at the top of the barrel, with the gasoline crack climbing by more than \$10/b.

Market sentiment was supported by fears of a tightening of supply, in the light of the recent and expected refinery shutdowns, which amounted to more than 1m b/d of capacity, affecting mainly supply to the East Coast.

Meanwhile, the margin for Arab Heavy on the US Gulf Coast increased by \$8 to stand at around \$13.5/b.

Despite weak domestic demand, the closing of three Petroplus refineries fuelled positive sentiment in European product markets on the expectation of tighter supplies and sentiment was boosted further by news of additional closures in the Atlantic Basin.

European refining margins showed a slight improvement on the back of notable gains across the barrel, mainly in light distillates, boosted by refinery closures, as well as the shutdown of the FCC unit at Bilbao refinery during the month. The refinery margin for Brent crude in Rotterdam showed a sharp recovery of almost \$3 in January to stand at around \$5/b.

Asian cracking margins reversed the falling trend and showed a sharp recovery across the product slate in January, with light distillates gaining more than \$6. This reflected increasing buying interest in naphtha from the petrochemical industry, with supply-side support emerging from the upcoming scheduled maintenance at refineries and ports in India.

Demand was also stronger in the utilities sector, which, along with higher bunker fuel sales, allowed Singapore refinery margins to increase sharply by \$3 and stand at around \$5/b in January.

US refinery margins resumed their upward trend in January, which, along with the

weakening in crude prices, encouraged refiners to keep run levels high, despite weak domestic demand, as export opportunities continued lending support.

US refinery runs averaged 83.3 per cent of capacity in January, which was two per cent lower than in the previous month, due to the closure of, and reductions in, some refineries affected by unfavourable economic performance.

Weak demand during the last years and the surplus of refining capacity in the Atlantic Basin have caused many refineries to lose money. The economic perspective for some of them appears worse, due to the lack of competitive advantages amid growing costs and stricter specifications, as well as increasing competition and weak product demand.

This situation has provoked the start of closures of around 1.5m b/d of refinery capacity in the first quarter of 2012, temporarily affecting the product market, despite ample spare capacity.

European refiners have continued to moderate throughput in response to deteriorating refining margins, the weak economy and excess capacity in the global refining system. Refinery runs remained at around 82 per cent recently and margins have recovered, as a consequence of the tight situation in the market after the closure of several refineries in the region.

In this environment of healthier margins, mainly for light distillates, European refiners might be encouraged to increase throughput. However, the scope to do so is limited, due to the structurally unbalanced market at the top of the barrel and the reduction in gasoline demand from the US.

Asian refinery runs have remained at high levels to face the rising demand for power generation, mainly in China, India and Japan. However, as refineries have been maximizing kerosene production for heating purposes, this increased supply has started to exert pressure on middle distillate margins.

Japan has increased throughput to around 78 per cent, after finishing some maintenance.

US gasoline demand continued the downward trend to stand at 8.1m b/d in January,

falling by more than 600,000 b/d over the previous month and registering a decline of 350,000 b/d over the same month a year earlier.

Weak US gasoline demand continued at a lower seasonal level, standing at four per cent below the year-ago level; however, despite the poor domestic demand, the gasoline crack spread managed to show a sharp rise on the back of stronger export opportunities in a tight supply environment.

Middle distillate demand decreased to 3.6m b/d in January, falling by almost 290,000 b/d over the previous month and showing a decline of 330,000 b/d over the same month a year earlier.

Weaker domestic demand was counterbalanced by strong import requirements from Latin America, while recently re-emerging arbitrage opportunities to Europe also supported the market and the gasoil crack on the US Gulf Coast showed a rise of almost \$5 to average \$26.5/b in January.

The market remained supported by healthy

“Asian refinery runs have remained at high levels to face the rising demand for power generation, mainly in China, India and Japan.”

diesel exports to South America, specifically to Chile, due to higher diesel requirements for power-generation as a severe drought has limited hydroelectric output, as well as increasing diesel requirements from other countries, such as Argentina, Colombia and Ecuador.

This support was reinforced by a continuing reduction in middle distillate inventories during the month and reports of lower temperatures in some areas of the US.

The US fuel oil market recovered, supported by healthy domestic demand, at a time

of rising low sulphur fuel oil (LSFO) demand for utility requirements in the US Northeast market, despite maximization of the use of cheaper natural gas.

Additional support came from the supply side, as refineries ran at lower levels than in the last months and fewer imports caused inventories to decline, thus fuelling positive sentiment in the market.

Product market sentiment became bullish in Europe on the expectation of tighter supplies, following the closure of several refineries in the region, and was further boosted by the news of additional closures in the Atlantic Basin.

The European gasoline market reversed

“Preliminary data indicates that US crude oil imports increased by more than 400,000 b/d, or 4.67 per cent, to average around 8.94m b/d in January.”

the falling trend to show a recovery, as news of additional refinery shutdowns across the Atlantic helped boost bullish sentiment.

Despite weak domestic demand, the European gasoil market was balanced on the supply side, due to the closure of several refineries in the region.

On the demand side, some support came from higher requirements from Greece, Egypt and Libya, which, along with fewer inflows from Asia and the closure of the Petroplus refineries, caused ARA stocks to drop and kept the market tight, thus offsetting the limited buying interest in heating oil due to the mild winter weather in the region.

Looking ahead, the colder weather in the middle of the winter season and the tight supply situation amid maintenance in Asia could lend support to the middle distillates market in the region in the coming months.

The weaker seasonal gasoline market showed a sharp recovery in the Singapore gasoline cracking margin, reacting to stronger regional demand in a tight market.

Gasoline market sentiment was fuelled by stronger demand from Indonesia, Vietnam, Malaysia and Sri Lanka, with the latter due to operational problems in the Kelaniya refinery.

Refinery shutdowns in Europe limited arbitrage movement to the East, with some support also stemming from rising propane prices in Northwest Europe, making naphtha the preferred petrochemical feedstock. The demand side was supported by increasing buying interest from the petrochemical sector, mainly from Japan, South Korea and Taiwan, while demand from China remained subdued, due to the Lunar New Year holiday.

Additional support will be expected over the coming weeks on news of a reduction in Indian naphtha exports, due to scheduled maintenance at Reliance’s Jamnagar II refinery; however, the petrochemical maintenance season could offset this.

The middle distillates market remained relatively well balanced, as the supply-side supported the market, with heavy maintenance scheduled in February fuelling tightening sentiment.

Furthermore, some refineries continued maximizing the production of kerosene for heating purposes, keeping gasoil supplies comparatively tight amid strong regional demand, mainly from Sri Lanka and China, as well as India where higher requirements of diesel were needed to replenish low inventories in the east of the country, caused by the increased use of diesel-powered back-up generators in the face of growing power shortages.

However, higher production of kerosene and the marginal arbitrage opportunities to the West exerted some pressure on regional supplies and capped gains in gasoil margins.

Oil trade

Preliminary data indicates that US crude oil imports increased by more than 400,000 b/d,

or 4.67 per cent, to average around 8.94m b/d in January. This was 127,000 b/d, or 1.4 per cent, lower than last year’s level, which was 9.1m b/d.

Product imports decreased for the second consecutive month since November and now stand at 2.09m b/d, which is 193,000 b/d, or 8.5 per cent, lower than the month before.

For the y-o-y comparison, a drop of around 800,000 b/d, or 27.7 per cent, was registered in January 2012. In contrast, product exports increased slightly in January to 2.88m b/d, a rise of 30,000 b/d, or 1.1 per cent, m-o-m and 9.9 per cent, or 260,000 b/d, y-o-y.

As a result, US net oil imports rose in January to 8.1m b/d, up by around 175,000 b/d, or 2.20 per cent, m-o-m. However, they remained almost 12.4 per cent below the year-ago level.

Japan’s net oil imports in December 2011 increased by 498,000 b/d, or 12.2 per cent, from the month before, to 4.6m b/d. On a y-o-y basis, an increase of 182,000 b/d, or 4.2 per cent, is shown.

This increase can be attributed mainly to the net trade in crude oil, which was up 12.6 per cent, or 432,000 b/d, on an m-o-m basis.

China’s crude oil imports fell to 5.18m b/d, or 21.9 million tonnes, in December, a decrease of 3.4 per cent on a tonnage basis and 6.5 per cent on a b/d basis, or 362,000 b/d. Comparing 2011 with the same period of the previous year, crude imports at 5.07m b/d showed a 5.5 per cent, or 266,000 b/d, increase.

Oil product supply, by imports registered in December, recorded a decline of 15 per cent, or 170,000 b/d, m-o-m. Y-o-y, a decrease of 27.6 per cent, or 378,000 b/d, was seen in December.

In annual terms, China’s product imports averaged 1.08m b/d in 2011, an increase of 71,000 b/d, or 7.1 per cent, over the previous year.

China’s crude oil exports in December showed an increase of around 144 per cent m-o-m, or 47,000 b/d, to 79,000 b/d, from 32,000 b/d the month before. For 2011, a decline of around 17.1 per cent or 10,000 b/d y-o-y was seen.

Oil product exports in December also showed a decrease of around 12 per cent, or 77,000 b/d, m-o-m. On a y-o-y basis, the

increase was 0.2 per cent, or 1.0,000 b/d. On a year-to-date basis, a level of 621,000 b/d indicates a decline of 2.8 per cent, or 18,000 b/d, from the previous year's level of 639,000 b/d.

As a result, China's total net oil imports decreased by 501,000 b/d, or 8.3 per cent, m-o-m in December to stand at 5.54m b/d. This decrease can be attributed to crude oil net imports, which fell by 409,000 b/d to 5.10m b/d.

Looking at China's net oil imports in 2011, the total rose by 366,000 b/d, or 7.2 per cent, to 5.48m b/d.

India's crude oil imports fell m-o-m by 403,000 b/d, or 11.1 per cent, in December to 3.22m b/d. On a y-o-y basis, crude oil imports stood at 3.36m b/d in 2011, which was 198,000 b/d, or 6.3 per cent, higher than in 2010.

Product imports decreased slightly, compared with November, by 0.5 per cent, or 1.3,000 b/d, to an average of around 262,000 b/d.

India's product imports in 2011 stood at 312,000 b/d, which represents a decline of around 6.0 per cent, or 20,000 b/d, compared with 2010, when it was 332,000 b/d.

On the export side, products decreased by 81,000 b/d, or 6.3 per cent, in December m-o-m to stand at 1.22m b/d. On a y-o-y basis, product exports increased by 11.5 per cent in December.

Over 2011, product exports showed an increase of 20.1 per cent, or 213,000 b/d, to stand at 1.27m b/d, compared with 1.06m b/d in 2010.

As a result, India's net oil imports decreased by 323,000 b/d, or 12.5 per cent, to average 2.26m b/d. Y-o-y, there was an increase of 11.8 per cent. Compared with the previous year, net oil imports of 2.40m b/d represent a moderate decrease of 1.5 per cent, or 350,000 b/d.

Total FSU crude exports fell by 273,000 b/d, or 4.1 per cent, m-o-m to 6.40m b/d in December.

FSU total product exports were down in December by a marginal 1.1 per cent to 2.39m b/d, compared with the previous month. However, due to reduced domestic demand during the New Year holiday period, in particular,

supplies of gasoline rose by 151,000 b/d, or 84.1 per cent.

This was countered by decreases in jet fuel of 75.0 per cent, or 3,000 b/d; naphtha of 2.6 per cent, or 5,000 b/d; gasoil of 3.2 per cent, or 22,000 b/d; fuel oil of 2.8 per cent, or 36,000 b/d; and VGO of 16.0 per cent, or 29,000 b/d.

Stock movements

US commercial oil stocks reversed the falls of the last four months and rose by 11.5m b to end January at 1,055.8m b. Despite this build, they remained 21.0m b, or 2.0 per cent, below the same time last year.

However, they were 14.4m b, or 1.4 per cent, above the five-year average. This build was attributed to both crude and products, which increased by 9.2m b and 2.3m b, respectively.

US commercial crude stocks reversed the downward trend of the last two months and increased considerably – by 9.2m b – to finish January at 338.9m b, the highest level since August.

Despite this build, they still showed a deficit of 8.5m b, or 2.5 per cent, from a year ago; however, they were 8.2m b, or 2.5 per cent, above the five-year average.

The build came mainly from higher crude oil imports, which increased by almost 500,000 b/d to average 8.94m b/d, but this level was still around 100,000 b/d less than the previous year.

The fall in US crude oil refinery input also contributed to the build in crude oil stocks. In fact, crude runs averaged 14.5m b/d, about 150,000 b/d below the previous month, but almost 140,000 b/d more than a year ago over the same period.

In January, US refineries operated at 83.3 per cent, which was 1.5 per cent lower than the previous month and 0.8 per cent lower than in the same month last year.

Crude commercial stocks are expected to build further, as moderate temperatures in the US Northeast should reduce the call for heating oil. At the same time, higher global oil supply should lead to further increases in crude imports

and, consequently, contribute to a further build in crude oil stocks.

Adding to the bearish crude sentiment, Cushing inventories rose in the week ending January 27 by 1.5m b over the previous week to reach 30.1m b.

US product stocks reversed the declines of the last four consecutive months to rise in January by 2.3m b to 716.9m b. At this level, they were 12.5m b, or 1.7 per cent, below that of the same time last year, while showing a surplus of 6.1m b, or 0.9 per cent, over the five-year average.

With the exception of residual fuel oil, all other products saw a build, with the bulk of this coming from gasoline stocks, which increased by 9.9m b, followed by 1.8m b for distillates and 800,000 b for jet fuel oil.

Gasoline stocks' considerable build followed a slight drop in December. At 230.0m b, they were at the highest level for a year, with a surplus of 700,000 b over the seasonal norm. However, despite this build, they were

“Looking at China's net oil imports in 2011, the total rose by 366,000 b/d, or 7.2 per cent, to 5.48m b/d.”

still 4.9m b, or 2.1 per cent, below the previous year's level.

Gasoline demand, hitting a new record-low since January 2000, was behind this strong build in gasoline stocks. In fact, gasoline demand averaged around 8.1m b/d, almost 600,000 b/d below a month earlier.

A surge in gasoline imports to over 1m b/d also contributed to the build in inventories. However, lower gasoline output at 8.6m b/d, from more than 9.0m b in the previous month, limited inventory gains.

A continuation of weak gasoline fundamentals should lead to a higher build in gasoline stocks in the coming weeks. Distillate stocks showed a contra-seasonal build in January to end the month at 145.4m b, the highest level since September.

Despite this build, they were 16.8m b, or 10.4 per cent, below the previous year's level for the same period and 2.5m b, or 1.7 per cent, below the seasonal norm.

The build in distillate stocks came on the back of lower demand, which declined by around 300,000 b/d in January from the previous month to average 3.6m b/d.

Weak natural gas prices and warm weather continued to impact distillate markets. Higher distillate exports, estimated at around 1m b/d,

“Weak natural gas prices and warm weather continued to impact distillate markets. Higher distillate exports ... limited a further build in distillate stocks.”

as well as a reduction in refinery output, limited a further build in distillate stocks.

Jet fuel oil stocks also rose in January, to end the month at 42.2m b, which was 1.8 per cent higher than the same month the year before and 2.1 per cent above the five-year average.

In contrast, residual fuel oil stocks fell for the second consecutive month, reflecting the strength of fuel oil markets. At 33.6m b, they were 5.4m b, or 13.8 per cent, below last year's level and 5.3m b, or 13.6 per cent, below the seasonal norm.

In Japan, in December, commercial oil stocks fell for the third consecutive month

– by 7.4m b to 168.8m b – the lowest level since April. With this draw, they switched the surplus from a year ago that was incurred the previous month to a deficit of 2.8m b, or 1.7 per cent, while the deficit with the five-year average widened to 6.4 per cent, from 5.4 per cent a month earlier.

The bulk of the stock-draw came from products, which declined by 7.0m b, while crude saw a small draw of 400,000 b.

Japanese commercial crude oil stocks declined for the second consecutive month to end December at 98.0m b. With this draw, they were 3.1 per cent below the five-year average and 3.7 per cent lower than the seasonal norm.

December's drop came from higher crude throughput, which increased by around 200,000 b/d, or 5.9 per cent, from the previous month, to average 3.59m b/d.

However, this level was still eight per cent below that of the same period the year before and corresponded to a refinery utilization rate of 79.7 per cent, which was 4.4 per cent higher than the previous month, but still 6.6 per cent less than the same period the year before.

Direct crude burning continued to increase in December, reaching more than 332,000 b/d, which was 37 per cent above the previous month's level.

The increase in Japanese crude oil imports for the second consecutive month limited the fall in crude oil stocks. In fact, crude oil imports rose by around 320,000 b/d, or 8.9 per cent, from the month before to average 3.6m b/d, although they were down by 5.4 per cent from the previous year.

For the whole of 2011, imports averaged 3.57m b/d, which was four per cent lower than in the previous year. The drop in Japan's crude oil imports can be attributed to lower refinery throughput, as some of the country's refineries were forced to shut down following the March earthquake and tsunami.

Japanese total product inventories fell in December, reversing the build of the previous

month to stand at 70.8m b. With this drop, the deficit with the last five-year average widened to 9.8 per cent from 7.7 per cent a month earlier, while the surplus with the same period the year before remained at 0.4 per cent.

The fall came from higher oil product sales, which reached almost 4.0m b/d in December, nearly 17 per cent more than the previous month and 2.7 per cent higher than the same period a year earlier.

However, this rise could turn out to be an exception, as the Japanese economy is slowing down and the strong yen is further curbing oil demand, which is already on a downward trend, following the shift in energy policy to more efficient cars and alternative fuels.

With the exception of naphtha, which increased by 300,000 b, all products saw a drop, with the bulk of the loss coming from distillate stocks, which declined by 5.3m b. This was followed by a drop of 1.3m b in gasoline stocks, while fuel oil inventories decreased by 700,000 b.

In Singapore, in December, product stocks continued their downward trend for the sixth consecutive month, falling by 2.6m b to end the month at 36.7m b, the lowest level since January 2009. With this draw, they widened the deficit with the same time a year earlier to 6.9m b, from 5.7m b the previous month.

Within products, the picture was mixed. Light distillates and fuel oil declined by 1.8m b and 900,000 b, respectively, while middle distillates rose by 200,000 b.

Product stocks in the Amsterdam-Rotterdam-Antwerp (ARA) region reversed the build of the previous month and declined by 1.4m b to end December at 29.4m b, the lowest level for three years.

With this draw, the deficit with the previous year stood at 8.7m b, or 22.8 per cent. Within products, the picture was mixed. Gasoline and jet fuel oil saw gains, while naphtha, gasoline and fuel oil stocks experienced draws. ■■

Table A: World crude oil demand/supply balance															m b/d	
World demand	2006	2007	2008	2009	2010	1Q11	2Q11	3Q11	4Q11	2011	1Q12	2Q12	3Q12	4Q12	2012	
OECD	49.5	49.3	47.6	45.6	46.2	46.3	44.6	46.1	46.3	45.8	45.8	44.5	46.1	46.2	45.7	
North America	25.4	25.5	24.2	23.3	23.8	23.8	23.3	23.6	23.5	23.6	23.4	23.4	23.7	23.6	23.5	
Western Europe	15.7	15.5	15.4	14.7	14.6	14.2	14.1	14.8	14.4	14.4	14.0	13.9	14.6	14.2	14.2	
Pacific	8.5	8.4	8.0	7.7	7.8	8.3	7.1	7.7	8.4	7.9	8.4	7.2	7.7	8.4	7.9	
Developing countries	23.6	24.8	25.6	26.2	27.0	27.2	27.6	27.8	27.9	27.7	27.8	28.2	28.5	28.5	28.2	
FSU	4.0	4.0	4.1	4.0	4.1	4.1	4.0	4.4	4.5	4.2	4.2	4.1	4.5	4.5	4.3	
Other Europe	0.9	0.8	0.8	0.7	0.7	0.7	0.6	0.7	0.8	0.7	0.7	0.7	0.7	0.8	0.7	
China	7.2	7.6	8.0	8.3	9.0	9.1	9.5	9.4	9.6	9.4	9.5	10.0	9.8	10.0	9.8	
(a) Total world demand	85.2	86.5	86.1	84.7	86.9	87.5	86.3	88.4	89.0	87.8	88.1	87.4	89.5	89.9	88.8	
Non-OPEC supply																
OECD	20.1	20.0	19.5	19.7	20.0	20.1	19.8	19.9	20.5	20.1	20.3	20.2	20.1	20.3	20.3	
North America	14.2	14.3	13.9	14.4	15.0	15.3	15.2	15.5	15.9	15.5	15.7	15.7	15.7	15.8	15.7	
Western Europe	5.3	5.2	4.9	4.7	4.4	4.3	4.1	3.8	4.1	4.1	4.1	3.9	3.9	4.0	4.0	
Pacific	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.5	0.5	
Developing countries	11.9	11.9	12.2	12.4	12.7	12.8	12.5	12.7	12.6	12.7	12.8	12.9	12.9	13.0	12.9	
FSU	12.0	12.5	12.6	13.0	13.2	13.3	13.3	13.2	13.3	13.3	13.4	13.4	13.4	13.5	13.4	
Other Europe	0.2	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	
China	3.7	3.8	3.8	3.8	4.1	4.2	4.2	4.1	4.1	4.1	4.2	4.2	4.2	4.2	4.2	
Processing gains	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	
Total non-OPEC supply	49.9	50.4	50.3	51.1	52.3	52.8	52.0	52.1	52.8	52.4	53.1	52.9	53.0	53.3	53.1	
OPEC NGLs and non-conventionals	3.9	3.9	4.1	4.3	4.9	5.1	5.3	5.4	5.4	5.3	5.5	5.6	5.7	5.8	5.7	
(b) Total non-OPEC supply and OPEC NGLs	53.8	54.4	54.4	55.4	57.2	57.9	57.2	57.4	58.2	57.7	58.5	58.5	58.7	59.1	58.7	
OPEC crude supply and balance																
OPEC crude oil production¹	30.6	30.2	31.3	28.8	29.3	29.6	29.2	29.9	30.4	29.8						
Total supply	84.4	84.6	85.7	84.2	86.5	87.5	86.4	87.4	88.6	87.5						
Balance²	-0.9	-2.0	-0.4	-0.5	-0.5	-	0.1	-1.0	-0.4	-0.3						
Stocks																
OECD closing stock level^{m b}																
Commercial	2655	2554	2679	2641	2670	2631	2676	2664								
SPR	1499	1524	1527	1564	1561	1558	1561	1526								
Total	4154	4079	4206	4205	4230	4188	4237	4189								
Oil-on-water	919	948	969	919	871	891	853	835								
Days of forward consumption in OECD																
Commercial onland stocks	54	54	59	57	58	59	58	58								
SPR	30	32	33	34	34	35	34	33								
Total	84	86	92	91	92	94	92	91								
Memo items																
FSU net exports	8.1	8.5	8.5	9.0	9.1	9.2	9.3	8.8	8.8	9.0	9.2	9.3	8.9	8.9	9.1	
[(a) – (b)]	31.4	32.2	31.6	29.3	29.7	29.6	29.1	30.9	30.8	30.1	29.6	28.9	30.9	30.8	30.0	

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 64, while **Graphs 1 and 2** on page 65 show the evolution on a weekly basis. **Tables 3 to 8** and the corresponding graphs on pages 66–67 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 52/11-week 4/12 (week ending)				
	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Dec 30	Jan 6	Jan 13	Jan 20	Jan 27				
Arab Light – Saudi Arabia	93.59	101.21	110.37	118.27	110.08	109.37	111.61	106.43	107.72	106.40	110.59	107.96	112.82	107.89	112.30	113.65	112.98	112.51				
Basrah Light – Iraq	92.33	99.52	109.16	117.05	107.93	106.65	109.87	105.07	106.68	105.00	108.47	106.06	110.21	105.90	110.36	111.02	110.01	109.71				
Bonny Light – Nigeria	98.10	105.66	116.75	127.12	118.88	117.27	119.69	112.41	115.63	113.09	114.21	110.71	113.08	110.10	114.93	114.18	111.99	111.75				
Es Sider – SP Libyan AJ	96.10	103.51	114.35	124.52	115.90	114.84	117.69	111.26	113.93	110.24	111.46	108.66	111.28	108.05	113.13	112.38	110.19	109.95				
Girassol – Angola	96.18	104.42	115.35	123.74	114.91	114.07	116.63	110.60	111.59	110.26	111.73	109.07	113.01	108.77	113.98	114.12	112.29	112.08				
Iran Heavy – IR Iran	92.22	99.29	108.05	116.27	108.28	107.39	110.34	104.90	105.54	104.83	109.20	106.83	111.77	106.72	111.24	112.74	111.95	111.30				
Kuwait Export – Kuwait	91.45	98.75	107.66	115.64	107.59	106.65	109.33	104.51	105.16	104.09	109.46	107.06	112.00	106.91	111.09	112.92	112.37	111.77				
Marine – Qatar	92.69	100.18	108.87	116.41	109.10	107.83	110.34	105.14	106.46	104.68	109.14	107.36	110.65	107.14	109.27	111.53	111.27	110.64				
Merey* – Venezuela	80.09	87.51	96.22	104.44	98.44	99.92	103.26	99.81	99.12	99.24	105.05	101.44	107.77	102.12	107.10	107.88	108.06	108.01				
Murban – UAE	95.04	102.75	111.93	119.95	113.37	112.06	114.33	108.92	109.57	107.51	111.92	109.49	113.03	109.08	111.92	114.05	113.41	112.73				
Oriente – Ecuador	84.80	90.14	105.04	112.82	104.63	98.87	103.46	97.91	103.82	103.69	105.75	100.99	104.11	101.39	104.62	104.24	104.12	103.85				
Saharan Blend – Algeria	97.50	105.01	115.95	126.57	116.80	115.74	117.29	111.16	115.03	112.74	112.41	108.56	111.43	107.95	113.28	112.53	110.34	110.10				
OPEC Reference Basket	92.83	100.29	109.84	118.09	109.94	109.04	111.62	106.32	107.61	106.29	110.08	107.34	111.76	107.22	111.59	112.61	111.74	111.31				

Table 2: Selected OPEC and non-OPEC spot crude oil prices

\$/b

Crude/country	2011												2012					Weeks 52/11-week 4/12 (week ending)				
	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Dec 30	Jan 6	Jan 13	Jan 20	Jan 27				
Minas – Indonesia ¹	99.74	105.29	114.62	127.19	119.69	116.28	121.71	117.03	113.32	110.01	117.85	114.35	120.41	114.14	119.63	121.63	120.36	119.77				
Arab Heavy – Saudi Arabia	90.26	97.20	105.80	113.74	105.56	104.34	107.55	103.23	103.18	102.40	108.67	106.61	111.73	106.39	110.50	112.71	112.27	111.55				
Brega – SP Libyan AJ	96.75	104.16	115.00	125.62	117.00	115.94	118.79	112.36	115.03	111.34	112.56	109.76	111.18	109.15	113.03	112.28	110.09	109.85				
Brent – North Sea	96.35	103.76	114.60	123.72	115.10	114.04	116.89	110.46	113.13	109.44	110.66	107.86	110.58	107.25	112.43	111.68	109.49	109.25				
Dubai – UAE	92.33	99.93	108.71	116.01	108.76	107.77	109.99	104.96	106.31	104.13	108.94	106.43	109.86	105.89	108.75	110.88	110.26	109.57				
Ekofisk – North Sea	97.54	104.65	116.27	124.98	116.34	116.01	118.49	112.22	114.27	111.42	111.76	109.01	112.25	108.15	113.20	113.43	111.38	111.25				
Iran Light – IR Iran	94.90	100.91	111.44	118.93	109.86	110.45	113.78	107.28	108.47	107.12	109.42	107.06	109.76	105.91	111.69	111.10	108.60	108.39				
Isthmus – Mexico	90.46	94.56	107.97	117.90	109.62	106.30	108.62	101.06	104.05	105.18	111.54	110.27	110.02	110.58	112.54	110.25	109.23	109.06				
Oman – Oman	92.49	100.27	109.00	116.56	109.25	107.90	110.41	105.30	106.65	104.96	109.30	107.28	110.91	107.40	109.54	111.85	111.59	110.83				
Suez Mix – Egypt	90.87	98.64	108.40	116.50	108.06	108.81	112.08	106.33	107.56	104.96	107.73	104.15	106.91	101.39	106.89	108.01	106.29	106.33				
Tia Juana Light ² – Venez.	88.37	92.85	105.60	115.31	107.97	104.28	106.66	99.24	102.17	103.40	109.64	108.28	108.04	108.58	110.52	108.26	107.26	107.10				
Urals – Russia	93.56	101.49	111.50	119.60	111.50	111.68	114.90	109.25	110.39	108.10	110.54	107.31	109.91	105.29	110.07	111.05	109.25	109.22				
WTI – North America	89.49	89.40	102.99	109.89	101.19	96.21	97.14	86.30	85.60	86.45	97.11	98.58	100.30	99.99	102.46	100.49	99.86	99.49				

Note: As per the decision of the 109th 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 108th 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 105th 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 136th (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 111th 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.

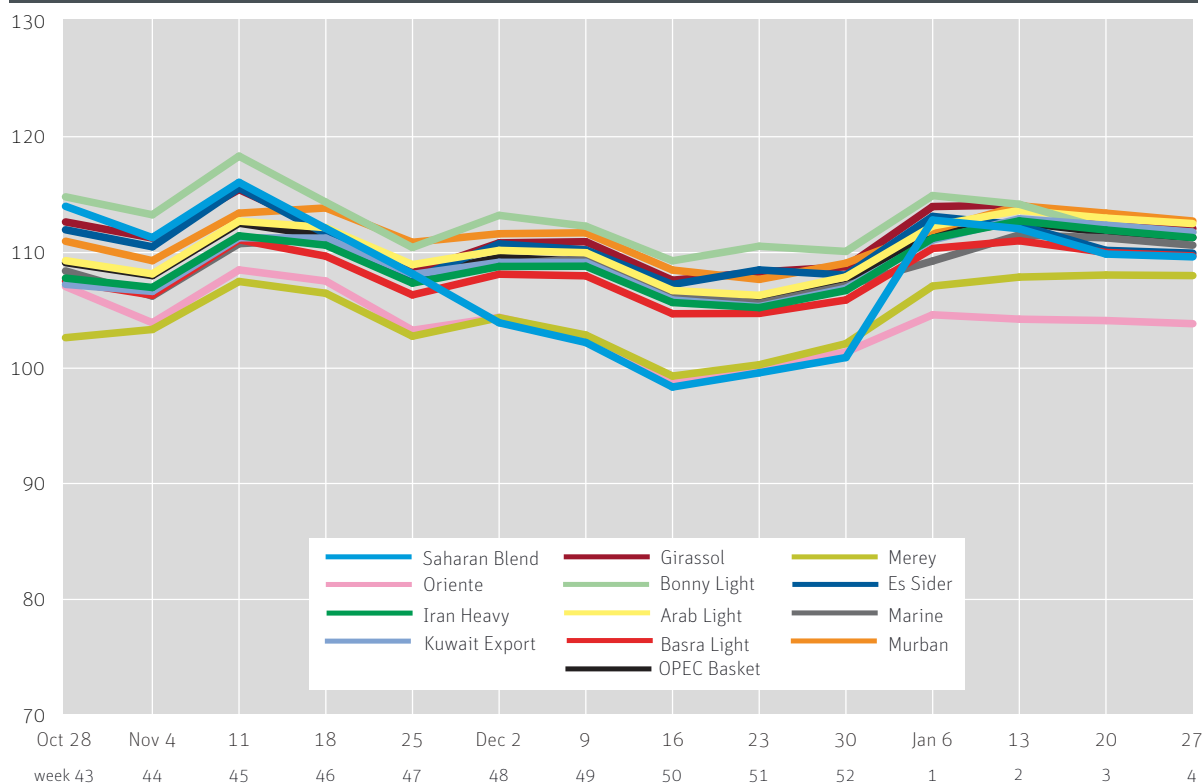
2. Tia Juana Light spot price = (TJL netback/Isthmus netback) x Isthmus spot price.

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.

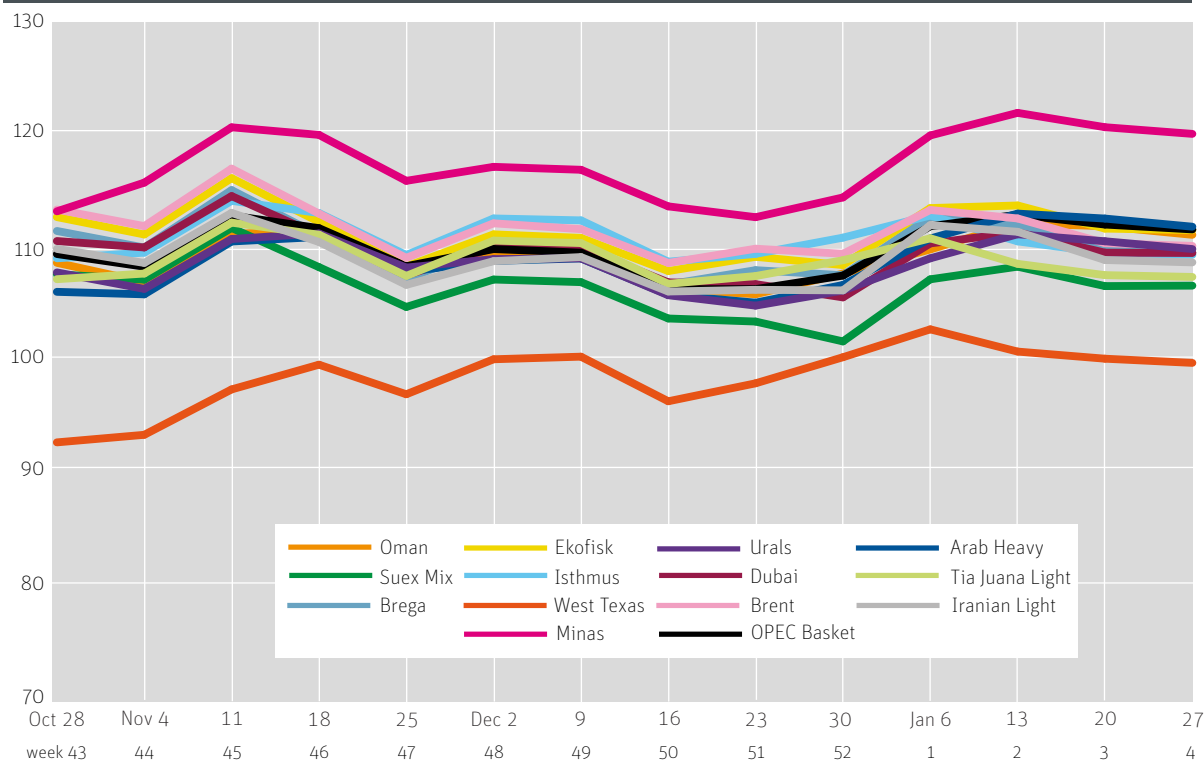
Graph 1: Evolution of the OPEC Reference Basket crudes, 2011

\$/b



Graph 2: Evolution of spot prices for selected non-OPEC crudes, 2011

\$/b

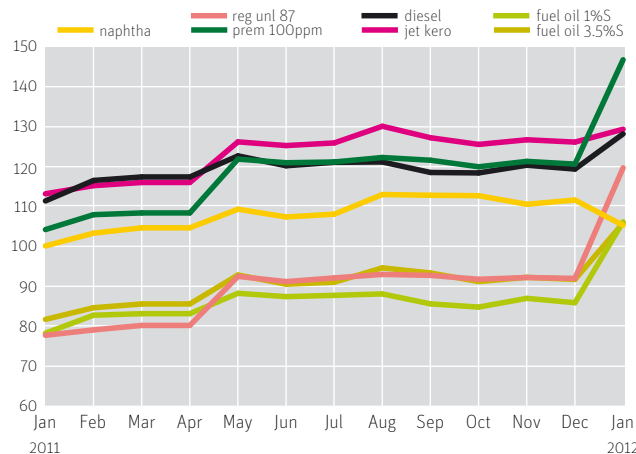


Note: As per the decision of the 109th ECB (held in February 2008), the OPEC Reference Basket (ORB) has been recalculated including the Ecuadorian crude Oriente retroactive as of October 19, 2007. As per the decision of the 108th ECB, the basket has been recalculated including the Angolan crude Girassol, retroactive January 2007. As of January 2006, monthly averages are based on daily quotations (as approved by the 105th 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 136th (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 111th ECB, BCF-17 has been replaced by Meroy 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 centS	fuel oil 3.5 per centS
2011	January	94.52	105.73	118.53	109.99	112.02	80.36	80.53
	February	97.52	109.22	130.38	118.32	121.69	89.92	88.86
	March	108.61	121.26	145.12	131.13	134.43	102.66	95.47
	April	116.52	137.85	155.11	136.52	140.71	110.48	101.85
	May	109.16	129.85	140.87	126.08	130.18	100.90	97.12
	June	103.26	122.89	142.97	127.63	130.51	104.58	98.87
	July	108.51	129.13	144.91	131.17	133.69	107.87	102.35
	August	104.01	123.58	140.81	125.79	127.58	101.09	98.83
	September	104.01	123.64	141.87	126.27	126.83	100.41	99.27
	October	97.59	117.08	141.74	129.10	127.57	100.41	99.30
	November	95.62	112.81	147.62	131.75	131.30	103.47	100.69
	December	96.97	112.46	141.25	124.00	124.89	102.11	97.12
2012	January	105.24	119.63	146.65	128.11	129.28	106.12	105.81



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 centS	fuel oil 3.5 per centS
2011	January	92.56	64.63	67.86	80.05	78.98
	February	95.33	69.33	70.41	89.46	87.85
	March	105.66	69.49	71.14	103.15	94.57
	April	113.49	75.51	75.15	110.39	100.30
	May	106.06	85.08	82.59	100.93	96.87
	June	101.18	84.23	81.28	105.06	97.87
	July	106.54	84.41	82.14	108.16	101.55
	August	102.08	88.62	85.53	101.24	97.69
	September	102.04	88.35	85.50	111.51	99.63
	October	95.47	87.79	83.52	125.30	100.19
	November	93.51	86.41	83.43	129.66	103.15
	December	94.06	87.10	83.47	122.24	102.06
2012	January	102.14	87.88	83.81	126.29	107.18

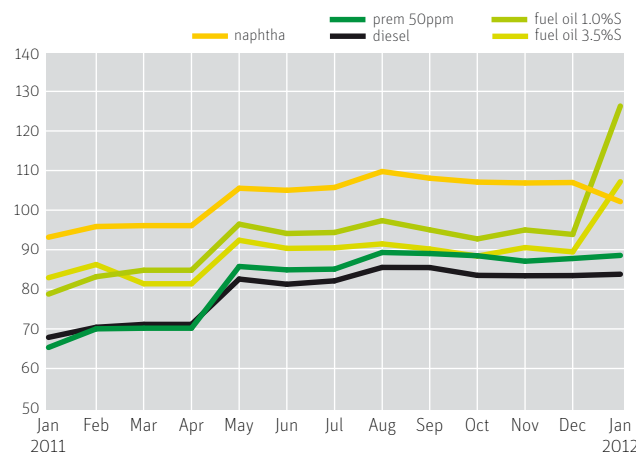
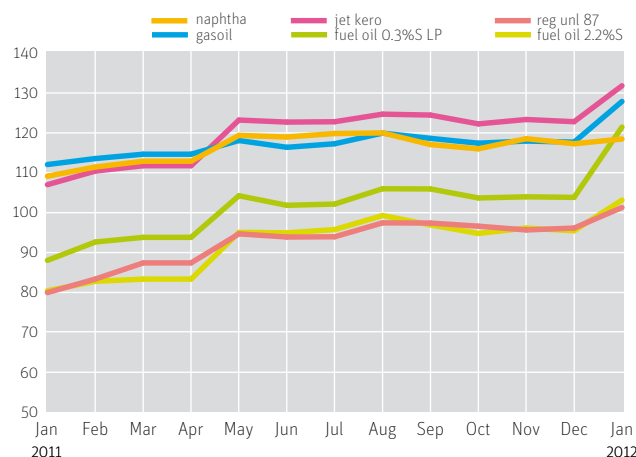


Table and Graph 5: US East Coast market – spot cargoes, New York

\$/b, duties and fees included

		naphtha	regular gasoline unleaded 87	gasoil	jet kero	fuel oil 0.3 per centS	fuel oil 2.2 per centS
2011	January	79.97	102.85	108.95	111.66	98.52	79.16
	February	83.36	106.56	115.73	120.77	110.15	88.78
	March	87.41	120.79	127.00	137.98	119.75	97.97
	April	89.00	133.14	133.78	139.06	123.61	104.49
	May	94.69	126.78	123.58	131.82	113.33	97.33
	June	93.90	118.83	124.10	128.57	119.48	101.18
	July	93.96	126.99	128.47	132.28	123.81	102.17
	August	97.45	119.58	123.15	127.25	114.16	97.80
	September	97.40	116.67	122.21	125.13	113.68	98.26
	October	96.62	115.80	123.52	125.48	117.07	99.30
	November	95.67	110.87	128.14	129.71	118.84	100.94
	December	96.15	110.58	120.86	122.78	113.50	96.31
2012	January		118.47	127.88	131.82	121.47	103.16



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 centS	fuel oil 2.8 per centS
2011	January	96.50	62.38	111.23	76.09	74.64
	February	103.28	67.77	120.67	85.68	84.23
	March	115.51	69.12	132.73	93.34	92.05
	April	120.30	74.09	138.77	97.49	96.44
	May	109.81	77.26	130.94	90.33	89.28
	June	101.92	76.07	129.32	94.18	93.13
	July	107.88	76.88	132.92	95.17	94.12
	August	102.33	78.98	127.84	90.80	89.75
	September	99.67	77.25	125.50	91.26	90.20
	October	99.12	76.12	125.80	92.24	91.19
	November	94.19	77.10	129.69	93.92	92.61
	December	96.65	76.61	121.94	89.31	87.86
2012	January	105.30	77.10	131.13	96.27	94.62

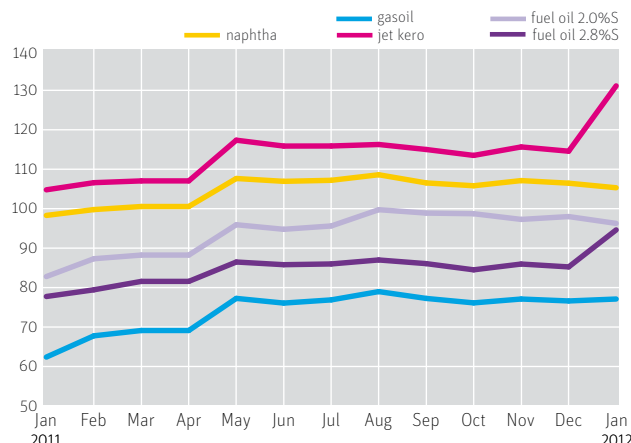


Table and Graph 7: Singapore market – spot cargoes, fob

\$/b

		naphtha	premium gasoline unl 95	premium gasoline unl 92	diesel ultra light	jet kero	fuel oil 180 Cst	fuel oil 380 Cst
2011	January	95.16	106.38	104.34	109.48	109.89	83.71	82.81
	February	97.87	111.84	109.63	118.93	120.18	95.15	93.27
	March	107.83	120.97	118.87	132.29	131.92	100.70	98.78
	April	115.38	129.97	127.86	139.96	138.69	106.62	104.86
	May	108.34	124.82	121.68	128.26	127.76	101.39	99.56
	June	101.90	120.33	117.76	127.73	126.89	103.62	101.33
	July	105.97	126.01	123.27	129.83	129.24	107.26	103.78
	August	103.00	122.85	119.75	125.29	124.89	105.51	101.08
	September	103.49	124.36	122.06	124.38	123.53	105.42	101.23
	October	96.19	121.93	119.90	122.89	123.25	105.82	102.08
	November	95.25	112.86	111.17	129.39	127.99	110.76	105.89
	December	98.61	113.86	111.51	125.12	122.87	105.72	102.52
2012	January	104.90	124.11	120.80	129.95	126.68	114.37	110.81

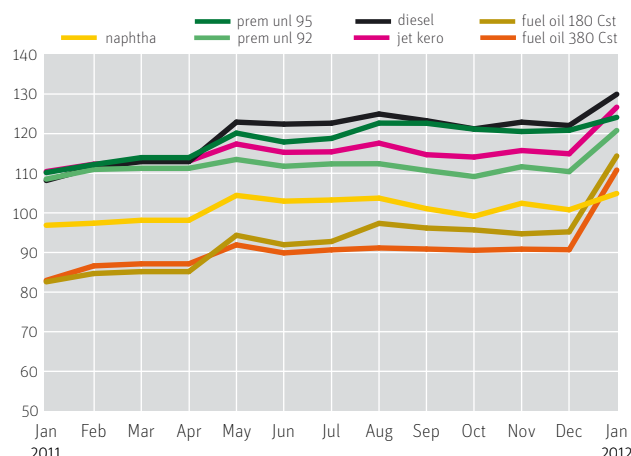
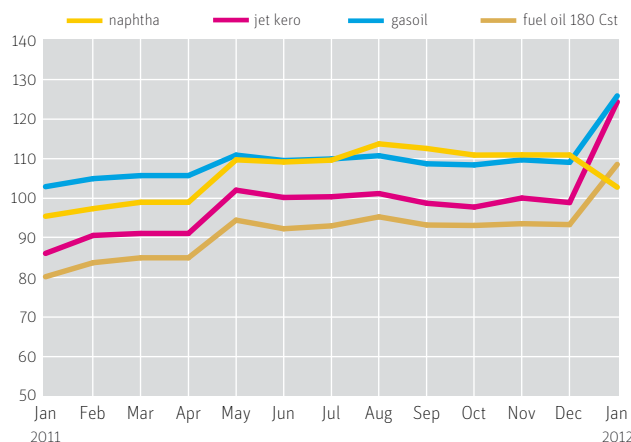


Table and Graph 8: Middle East Gulf market – spot cargoes, fob

\$/b

		naphtha	gasoil	jet kero	fuel oil 180 Cst
2011	January	93.37	105.85	107.69	80.59
	February	96.17	115.18	118.02	91.82
	March	105.55	128.00	129.64	97.01
	April	112.76	135.31	136.15	102.61
	May	105.71	123.85	125.15	97.47
	June	100.74	123.44	124.53	98.88
	July	104.65	125.94	126.89	100.74
	August	101.06	120.24	122.28	98.27
	September	101.31	120.02	120.98	98.84
	October	94.85	118.99	121.06	99.33
	November	94.18	125.59	125.77	103.97
	December	96.76	121.12	120.59	100.74
2012	January	102.81	125.88	124.37	108.57



Source: Platts. Prices are average of available days.

Forthcoming events

Colombia oil and gas summit and exhibition 2012, March 13, 2012, Cartagena, Colombia. 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.

12th Annual Arctic oil and gas symposium, March 13-14, 2012, Calgary, AB, Canada. Details: Canadian Institute Energy Group, 1329 Bay Street, Toronto M5R 2C4, ON, Canada. Tel: +1 416 927 7936; fax: +1 416 927 1563; e-mail: CustomerService@CanadianInstitute.com; website: www.arcticgassymposium.com.

Oil products forum Asia, March 13-14, 2012, Langkawi, Malaysia. Details: Conference Connection Administrators Pte Ltd, 105 Cecil Street #07-02, The Octagon, 069534 Singapore. Tel: +65 6222 0230; fax: +65 6222 0121; e-mail: info@cconnection.org; website: www.cconnection.org.

2nd Annual conference and exhibition HSE in oil and gas, March 13-15, 2012, Moscow, Russia. Details: Adam Smith Conferences, 6th 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.

Unconventional gas, March 14-15, 2012, 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.

Condensate and naphtha forum, March 15-16, 2012, Langkawi, Malaysia. Details: Conference Connection Administrators Pte Ltd, 105 Cecil Street #07-02, The Octagon, 069534 Singapore. Tel: +65 6222 0230; fax: +65 6222 0121; e-mail: info@cconnection.org; website: www.cconnection.org.

12th China international petroleum and petrochemical technology and equipment exhibition, March 19, 2012, Beijing, PR of China. Details: Beijing Zhenwei Exhibition Co Ltd, 801 Building E, Kaixuancheng 170, Beiyuan Road, Chaoyang District, Beijing, PR of China. Tel: +86 10 58 23 65 88/6555; fax: +86 10 58 23 65 67; e-mail: cippe@zhenwei-expo.com; website: www.cippe.com.cn.

Bunkering 101, March 19-20, 2012, Singapore. Details: Conference Connection Administrators Pte Ltd, 105 Cecil Street #07-02, The Octagon, 069534 Singapore. Tel: +65 6222 0230; fax: +65 6222 0121; e-mail: info@cconnection.org; website: www.cconnection.org.

Offshore safety summit 2012, March 19-21, 2012, 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.

Oil and gas water management: from reservoir to reuse/disposal, March 19-21, 2012, Dhahran, Saudi Arabia. Details: Society of Petroleum Engineers, Dubai Knowledge Village, Block 17, Offices S07-S09, PO Box 502217, Dubai, UAE. Tel: +971 4 390 3540; fax: +971 4 366 4648; e-mail: spedub@spe.org; website: www.spe.org/events/12adha.

Rio gas strategic forum 2012, March 20, 2012, Rio de Janeiro, Brazil. 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/conf-11.

Advanced contract risk management for oil and gas Asia, March 20-21, 2012, Kuala Lumpur, Malaysia. 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.

CCS: converting CO₂ from waste into profit, March 21-22, 2012, Rio de Janeiro, Brazil. Details: Society of Petroleum Engineers, PO Box 833836, Richardson, TX 75083-3836, USA. Tel: +1 972 952 393; fax: +1 972 952 9435; e-mail: spedal@spe.org; website: www.spe.org/events/12ari2.

Oil and gas communications, March 21-22, 2012, 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.

11th Turkish international oil and gas conference and showcase, March 21-22, 2012, Ankara, Turkey. 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: www.turoge.com/2012.

LNG supplies for Asian markets (LNGA 2012), March 25-28, 2012, Singapore. Details: Conference Connection Administrators Pte Ltd, 105 Cecil Street #07-02, The Octagon, 069534 Singapore. Tel: +65 6222 0230; fax: +65 6222 0121; e-mail: info@cconnection.org; website: www.cconnection.org.

International oil trading and price risk management, March 26-28, 2012, Singapore. Details: Conference Connection Administrators Pte Ltd, 105 Cecil Street #07-02, The Octagon, 069534 Singapore. Tel: +65 6222 0230; fax: +65 6222 0121; e-mail: info@cconnection.org; website: www.cconnection.org.

Iraq: field development, synergies and optimization, March 26-28, 2012, Istanbul, Turkey. Details: Society of Petroleum Engineers, Part Third Floor East, Portland House, 4 Great Portland Street, London W1W 8QJ, UK. Tel: +44 207 299 3300; fax: +44 207 299 3309; e-mail: spelon@spe.org; website: www.spe.org/events/12aist.

3rd Eastern African oil, gas and energy, March 26-28, 2012, Nairobi, Kenya. Details: Global Pacific Partners, Suite 7, 4 Montpelier Street, Knightsbridge, London SW7 1EE, UK. Tel: +44 207 589 7804; fax: +44 207 589 7814; e-mail: babette@glopac.com; website: www.petro21.com.

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Abstracts of up to 150 words should be included. In the covering letter, or on a separate sheet, the following details of the principal author should be given: full name (and, if different, desired name for publication purposes), title, affiliation, full postal address, e-mail address and telephone numbers. Similar details should be provided for all co-authors. Authors will retain copyright to their papers, while giving the Publishers' Exclusive Licence to publish.

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Vacancy announcements

Director, Research Division – Application deadline: March 20, 2012

Job dimensions:

The Research Division's objective is to conduct a continuous program of research, issuing reports, analyses and data in the field of energy and related matters. It monitors, forecasts and analyses development in energy in general and the oil industry in particular, as well as follows and analyses related economic and financial developments. It contributes to the coordination of OPEC Member Countries in international negotiations and promotes cooperation between the various relevant global players to be able to be present and actively participate in the various international fora.

The Director of the Research Division plans, organises, coordinates, manages and evaluates the work of the Research Division in accordance with the Division's work program and budget.

The work covers studies on medium and long-term energy developments, short-term perspective studies and analyses of the petroleum market as well as data, information and IT Development in these fields. He/she provides substantive reports and other documentation with particular focus on supervising, guiding and contributing to the Secretariat's technical reports.

As designated by the Secretary General, represents OPEC in Member Countries and at relevant international fora, as well as prepares and delivers substantive reports and statements and initiates research collaboration with relevant organizations and institutions. In addition, he/she contributes to further strengthen the cooperation between Member Countries in the fields of Research and Development and technology.

He/she pursues close monitoring and analysis of on-going multilateral negotiations and dialogues with various governmental bodies, as well as further enhances the producer-consumer and producer-producer dialogues. Furthermore, he/she acts on behalf of the Secretary General during his absence as and when the Secretary General delegates his authority.

Required competencies and qualifications:

- Advanced University degree (PhD preferred) preferably in Economics and/or Engineering
- A minimum of 15 years (12 years in case of a PhD degree) whereof six years at an international level in conducting and/or planning/supervising research and development work relating to energy, in particular oil, and at least six years in a high-level managerial position
- Training/specialization in conducting and leading research on economic and technological issues in the fields of oil and energy
- Managerial/leadership skills, analytical/decision-making/communication/ interpersonal/presentation/negotiation skills, as well as strategic and customer service orientation
- Communication skills in written and spoken English

The post is at grade A reporting to the Secretary General.

Petroleum Industry Analyst – Application deadline: March 11, 2012

Job dimensions:

Within the Research Division, the Energy Studies Department is responsible for monitoring, analysing and forecasting world energy developments in the medium and long term and reporting thereon, in particular providing in-depth studies and reports on energy issues. It monitors developments and undertakes specific studies on energy demand and production-related technology, assessing implications for OPEC. It identifies and follows up key areas of energy-related emerging technologies and research and development (R&D), facilitates and supports planning and implementation of collaborative energy-related R&D programs of Member Countries, as well as identifies prospects for OPEC participation in major international R&D activities.

It carries out studies and reports on developments in the petroleum industry, providing effective tools for carrying out model-based studies of analyses and projections of energy supply/demand and downstream simulation. It elaborates OPEC Long Term

Strategy and monitors, analyses and reports on relevant national or regional policies (fiscal, energy, trade and environmental), assessing their impacts on energy markets.

The Petroleum Industry Analyst studies and analyses medium to long-term strategies, plans, operations and performance of petroleum-related companies and assesses the impact on OPEC and on the medium to long-term oil outlook. In addition, he/she monitors and analyses developments in the petroleum industry structure and assesses their impact on OPEC.

Required competencies and qualifications:

- University degree (advanced degree preferred) in Economics, Finance or Engineering
- A minimum of eight years (six years in case of an advanced degree) in the petroleum industry or in oil-related companies or institutions
- Training/specialization in economic analysis, analysis of the financial performance of companies, analysis of company strategies, corporate planning and knowledge of oil companies' operations along the value chain an asset
- Analytical, communication and presentation skills

The post is at grade E reporting to the Head of Energy Studies Department.

Energy Demand Analyst — Application deadline: March 9, 2012

Job dimensions:

Within the Research Division, the Energy Studies Department is responsible for monitoring, analysing and forecasting world energy developments in the medium and long term and reporting thereon, in particular providing in-depth studies and reports on energy issues.

It monitors developments and undertakes specific studies on energy demand and production-related technology, assessing implications for OPEC. It identifies and follows up key areas of energy-related emerging technologies and research and development (R&D), facilitates and supports planning and implementation of collaborative energy-related R&D programs of Member Countries, as well as identifies prospects for OPEC participation in major international R&D activities.

It carries out studies and reports on developments in the petroleum industry, providing effective tools for carrying out model-based studies of analyses and projections of energy supply/demand and downstream simulation. It elaborates OPEC Long Term Strategy and monitors, analyses and reports on relevant national or regional policies (fiscal, energy, trade and environmental), assessing their impacts on energy markets.

The Energy Demand Analyst develops medium to long-term assessments of future oil demand growth at the sectoral level, understanding the main drivers and key uncertainties.

Required competencies and qualifications:

- University degree (advanced degree preferred) in Economics, Energy Economics or related fields
- A minimum of eight years (six years in case of an advanced degree)
- Training/specialization in economic analysis, energy economics, knowledge of oil market developments
- Analytical, communication and presentation skills

The post is at grade E reporting to the Head of Energy Studies Department.

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 compensation package, including expatriate benefits, is commensurate with the level of the post.

Applications:

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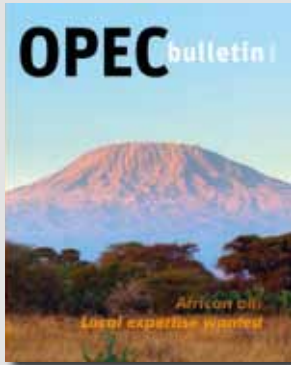
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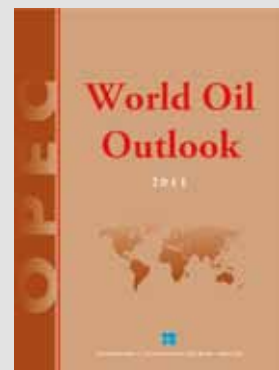
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