



THE NEW GEOGRAPHY OF ENERGY: BUSINESS AS USUAL OR A NEW ERA FOR ENERGY SUPPLY AND DEMAND?

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Several indicators point at a shift in energy supply and demand. From the so called "shale revolution" to a series of producing countries about to increase or resume production levels once again. How does this impact the OPEC members?

At present, we are seeing growth in non-OPEC supply, particularly North American tight oil production, as well as expectations for increases from elsewhere. This includes non-OPEC countries such as Brazil and Kazakhstan, as well as OPEC countries, such as Iraq, Iran, if sanctions are lifted, and Libya, if the country can overcome its current upheaval. In terms of the impact on OPEC production as a whole, we do not see it as a major challenge. In the near term, OPEC production will remain steady around the 29-30 million barrels of oil per day (b/d) level. Spare capacity will increase, but we expect it to remain at comfortable levels.

In the long term, however, we expect to see the call on OPEC liquids to increase by more than 10 million b/d by 2035. This is greater than the expected increase in non-OPEC supply over the same period, at just under 9 million b/d. For the foreseeable future, OPEC member countries will continue to meet much of the world's expanding liquids requirements. OPEC members are committed to invest to ensure that consumers receive oil when they need it. In terms of demand, we can expect to see a continuing trend in the expansion of the needs of developing countries. They will be the ones that drive demand in the years ahead.

I should also add that supply and demand levels are always shifting. It is something we have to monitor closely on a daily, monthly and yearly basis.

How concerned are you about instability in Libya and the continual decline of its production? What is OPEC's role in forestalling oil getting onto the black market?

During Libya's uprising of 2011, the country's oil production almost came to a standstill. However, once

hostilities ended it was able to return to more than 1.5 million b/d in a fairly short space of time. This was a great achievement and was due to the efforts of an efficient and highly skilled workforce.

It has been sad to see these efforts fall by the wayside. Supply disruptions in recent months have impacted output significantly. We remain hopeful that the Libyan government can resolve the current situation and return full Libyan production to the market. How long this takes, however, is difficult to say. But it is important that the country returns its production capacity as quickly as possible. It is vital that wells are not shut for too long.

In terms of your question about oil getting onto the black market – this is not something the OPEC Secretariat can do anything about. It is member countries that must act to counter any illegal trade of their own oil and products.

Do you foresee Iraq emerging as a factor in compensating for Libya's lost oil output? With Iraq's production rising rapidly, how quickly do you foresee the country being subject to the quota system?

In February 2014, Iraqi production expanded from around 3 million b/d to close to 3.4 million b/d. Moreover, increased export capacity and the start-up of new production in a number of joint ventures with international oil companies holds the promise of higher output this year, although a number of above-ground challenges remain in terms of security and the development of new infrastructure facilities. Looking longer term too, Iraq still has huge untapped petroleum resources. There is great potential.

With regards to Iraq and production allocations, this subject is not expected to be discussed in 2014. As for Iraq helping compensate for Libya's lost output, I think it is important to stress that OPEC member

OPEC member countries will continue to meet much of the world's expanding liquids requirements.

Forecasted near-term OPEC production 29 million-30 million b/d Expected increase in demand for OPEC liquids up to 2035

10 million b/d

Share of OPEC in the world's proven crude oil reserves More than 80 percent infigures





countries have on many occasions made up for any supply shortfall that suddenly impacts the market. This has also been the case with Libya. Our members have made sure there has been enough supply to meet demand. This also underscores the importance of spare capacity, which can be used in an emergency to keep the market balanced. I should stress, however, that Libya will be accommodated once it starts bringing its capacity back online.

Over the past few years, unconventional oil and gas have become more important. Do you think this is a long-term trend?

In the last few years the world has seen an increase in production from unconventional oil and gas. The main focus has been on shale gas and tight oil, particularly in North America. In response to your question, however, I will focus specifically on tight oil.

OPEC welcomes the increase in North American tight oil production. We see it as part of diverse energy mix — something we have always welcomed. With oil demand continuing to expand, the world will need all sources of oil. It also helps underscore what OPEC has said for many years: the fact that oil will remain central to our energy future. It adds depth to global supply and contributes to market stability.

In the United States, evidently great strides have recently been made in developing tight oil, but questions remain about how sustainable this is in the longer term.

There are some environmental concerns. And many wells are already experiencing sharp decline rates – in some cases 60 percent after one year. Moreover, current production is focused on what many are terming "the sweet spots." This is the low hanging fruit. We need to see what happens once these have been tapped.

In our latest World Oil Outlook, which was published in November 2013, we see North American tight oil supply, including from natural gas liquids, reaching just below 5 million b/d in 2018, before declining thereafter.

Have OPEC members been slow to act on opportunities created by fracking and unconventional oil and gas resources?

I think we need to appreciate that most OPEC member countries still have huge amounts of conventional resources in the ground. It is these that remain the primary focus for petroleum investments in member countries. In terms of oil, OPEC holds over 80 percent of the world's proven crude oil reserves, and in terms of gas, the share is just under 50 percent.

To date it is only the United States that has really taken advantage of the opportunities created by the evolution of fracking technology. It is easy to understand why. Of course, the technology was developed there. The principle of the private ownership of mineral rights, meaning the landowner benefits, has spurred drilling. And before it tapped into its shale gas and tight oil resources, the United States was gradually importing more oil and gas year-on-year. So I do not think we can say that OPEC member countries have been slow to act on the opportunities around unconventional resources. In fact, we are already seeing some, such as Algeria and Saudi Arabia, talk about developing their unconventional gas resources.

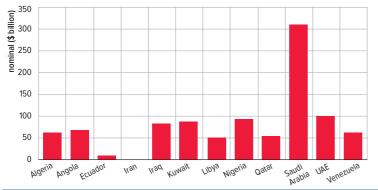
Moreover, they certainly have the resources. In a 2013 United States Energy Information Administration report, Libya and Venezuela were in the top 10 for technically recoverable tight oil resources, and Algeria was in the top ten for technically recoverable shale gas resources. It is also clear that many countries are still in the early assessment phase for these types of resources. I am sure OPEC member countries will find, develop and produce more unconventional resources in the coming years and decades. But, of course, that is a decision to be taken by each of them.

What is your position on the recent jump in OPEC crude output, which is matched by the steady growth of non-OPEC supplies? Are you concerned about the impact on the barrel price?

Yes, we have seen a slight increase in OPEC crude output in recent months and there is an expectation for a steady growth in non-OPEC supplies this year. However, as I mentioned in my response to your first question we are comfortable with this. We believe the market will remain fairly balanced in 2014.

In terms of the price. I am not unduly worried about current developments, but let me stress that OPEC does not have a target price. Our priority is a stable price: a level that does not affect global economic growth, and at the same time, a level that allows producers to receive a decent income and to invest to meet future demand. It is in no one's interest to have an industry where investments are "on, off, on, off." When talking about supply and the price we need to remind ourselves about the cost of the marginal barrel. It is obvious that this has increased significantly over the past decade, and the question that needs to be asked is: at what price levels might some projects being developed become unworkable? It is clear that for some projects it may not be far below current price levels of \$100-110. It is essential we try and maintain a stable price. This benefits both producers and consumers.

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Available OPEC net oil export revenues, 2012

Source: United States Energy Information Administration