

Energy security is vital for producers as well as consumers



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Energy is central to everything we do; for individuals, for businesses, for governments. All of the goods and services we often take for granted depend on access to energy – from mobile phones to motor vehicles, pharmaceuticals to plastics, computing to construction and agriculture to aviation. And in the coming decades, population growth, economic expansion and the fact that some 2.6 billion still rely on biomass for their basic needs and some 1.2 billion people still have no access to electricity, means demand for energy is set to grow. In OPEC's *World Oil Outlook (WOO) 2013*, global energy demand is expected to rise by 52 per cent over the period between 2010 and 2035.

There is no doubt that some of this demand increase will be supplied by non-fossil fuels. Renewables, from wind, solar, small hydro and geothermal, are expected to grow at over seven per cent per year, often as a result of government support and incentives. They certainly hold promise; but globally their share of the energy mix will still be less than three per cent by 2035, given their low initial base. And both the share of biomass and nuclear are expected to remain at steady levels throughout the period 2010-to-2035, at around nine per cent and just below six per cent respectively.

However, it is fossil fuels that will continue to play the dominant role in meeting demand, although their overall share will fall from 82 per cent to 80 per cent. Throughout most of this period, oil will remain the energy source with the largest share, although its overall share declines from 33 per cent to 27 per cent. Coal's share remains relatively stable at around 27 per cent. The share of natural gas, however, is expected to rise from 22 per cent to 26 per cent. Thus, by 2035 the shares of oil, gas and coal in the overall energy mix are expected to be relatively similar.

In terms of oil, the WOO's projections see liquids demand increasing by 19 million barrels a day (mb/d) over the period to 2035, with the developing Asian region accounting for close to 90 per cent of this increase. There is expected to be a steady decline in demand in all OECD regions. In terms of who provides the supplies, the WOO expects to see the call on OPEC liquids increase by over 10 mb/d by 2035, slightly higher than the increase in non-OPEC supply over the same period, at just under 9 mb/d. OPEC members are committed to invest, and to ensure that consumers

receive oil when they need it.

Of course, this will also mean significant expansion in the downstream. For example, in the WOO it is expected that there will be around 20 million barrels a day of additional crude distillation capacity required in the period to 2035. The majority of this is in the Asia-Pacific and the Middle East.

The industry is capable of meeting the big demand increases, through its huge resource base. The US Geological Survey estimates the world's ultimately recoverable resources of crude oil and natural gas liquids at more than 3.8 trillion barrels.

Moreover, there are the recent tight oil developments in North America. This is welcome news – it adds depth to global supply, aids market stability and provides further proof that the world is not running out of oil. However, some questions remain over how sustainable tight oil developments will be in the long term.

It is important to appreciate, however, that these projections only tell part of the story. Forecasts are what they say they are. We can present a vision linking market stability with other key global issues, notably sustainable development and the environment, but none of us can exactly predict the future as there are a wide variety of issues and uncertainties that may have an impact on how the oil industry evolves. And these can have significant impacts on investment in future capacity to meet the rising levels of demand.

A two-way street

A central facet to better understanding the future is energy security. It means an appreciation of the reciprocal nature of energy security. It is a two-way street. Security of demand is as important to producers, as security of supply is to consumers. For producers, it is critical to have a better understanding of demand-side policies and developments. If not, it can lead to investment uncertainty, and in turn, future market instability. Moreover, energy security cannot only be viewed as a short-term conundrum. It needs to cover all foreseeable time-horizons. Security tomorrow is as important as security today.

Security begets stability. And this is crucial for the industry as it looks to invest in projects and technology and turn these resources into supply.

Related to this is the issue of price stability. There are two elements to this.



Firstly, the industry needs to continue to keep a watchful eye over speculative activities. We cannot avoid speculation and volatility altogether, they are part of the market, but it is vital for the market to focus on actual market fundamentals, and to continually look to mitigate extreme volatility and excessive speculation. Extreme price fluctuations are not conducive to the effective functioning of the market, particularly given the long-term nature of investments.

And secondly, we need to ask the question: what price is required to make each energy economically viable? Every energy, and every investment project, has a break-even cost associated with it. Whether producing conventional oil and gas, coal, Canadian oil sands, ultra-deep offshore oil, renewables or biofuels there is an associated marginal cost.

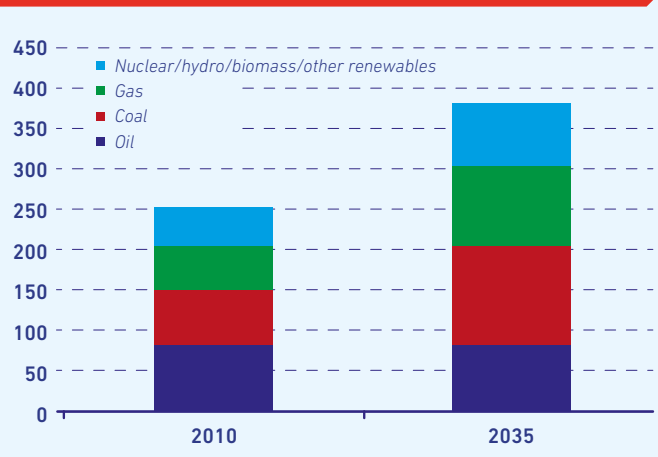
If prices fall below certain levels, then many investors will find their developments no longer viable. And if low prices lead to energy investments across the world being put on hold or cancelled altogether, then there is the potential to sow the seeds for extreme high oil prices in the future, if a lack of investment leads to supply failing to keep up with future demand increases. This has happened in the past.

It underscores the importance of a stable and fair price for all – one that is satisfactory for both producers and consumers and allows the energy industry and the global economy to grow.

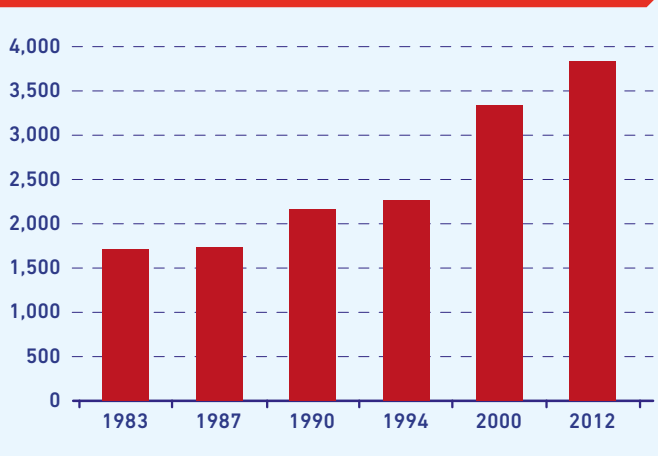
Of course, there are other challenges and uncertainties for the oil industry. There are those that are known, such as a potential human resource shortage, the need for more reliable and transparent data, and rising costs, all of which the industry can analyse today and where possible, take actions and decisions that help provide more stability to the industry's future. And there are those that are unknown, such as future geopolitical developments and weather-related events that the industry will need to manage, as and when they arise.

It is clear that the long-term market outlook is a favourable one for the oil industry. The industry will see growth in the years ahead, as oil demand expands. There are plenty of opportunities for investors in the industry, but at the same time it is important to ask the question: what will the industry need to turn available

World energy demand in OPEC's WOO Reference Case, 2010 and 2035 (mboe/d)



USGS estimate of the world's ultimately recoverable resources (billion barrels)



resources into delivered supply?

The key words are order and stability, for both producers and consumers. When planning for the future, whether this is five, ten or even 20 years hence, we need to have the best available information to have the best idea of where the market is heading. This will then allow the industry to look at the forecasts and try to put the best framework in place to overcome challenges and arrive at a future that works for us all. ■