today, with the global energy system expected to grow significantly in the coming decades, the importance of advancing the understanding between producers and consumers has never been so crucial. The focus must be on understanding the needs of each stakeholder and viewing the entire energy market holistically. It is essential that we continually evolve our relationships; better appreciate each other’s viewpoints; are realistic in our targets and goals; and are more pragmatic in our discussions.

The importance of this can be viewed in the constant flux the energy markets have found themselves in since the last International Energy Forum (IEF) ministerial in Cancun in 2010. There has been a continuation, indeed a spread, of the financial and economic turmoil that has gripped the world since 2008; dramatic changes in some countries of North Africa and the Middle East; the Macondo blowout in the US Gulf of Mexico; and the Japanese earthquake, tsunami and nuclear disaster.

These developments have all had significant implications for energy markets. There has been much volatility for the markets to digest. However, from an oil perspective, markets have adjusted rapidly, when and where necessary, and in terms of both volume and quality. Consequently, there has been no shortage of oil anywhere in the world.

That is not to say we can all sit back and relax. Change seems to be the only constant for global energy and oil markets. And with many challenges remaining, such as addressing persistent energy market volatility, investments and future market uncertainties, climate change mitigation, a shortfall in human resources and providing a lasting reduction in energy poverty; there are many issues and priorities for all stakeholders in the producer-consumer dialogue to discuss, and act on.

To better understand these challenges, it is important to look at them in the context of future energy growth. Energy demand is expected to increase by more than 50 per cent over the period 2010-to-2035 (Figure 1), according to the Reference Case of OPEC’s latest World Oil Outlook (WOO) published at the end of last year. This figure underscores the ever-expanding role of energy across the world; it is, and will continue to be, the heartbeat of our social and economic development.

Looking at shares, fossil fuels, currently accounting for 87 per cent of the world’s energy supply, will still contribute 82 per cent of the global total by 2035. For most of the period to 2035, oil will remain the energy type with the largest share, although its overall share will fall from 34 per cent to 28 per cent. Coal’s overall share remains similar to today, at around 29 per cent, whereas gas sees its share increase from 23 per cent to 25 per cent.

In terms of non-fossil fuels, renewable energy will grow fast, but since this starts from a low base its share is still only 3 per cent by 2035. Hydropower increases a little to 3 per cent by 2035. Nuclear power also witnesses some expansion, to 6 per cent in 2035, although prospects for nuclear have clearly been affected by events in Fukushima.

For the oil industry, in terms of volumes, in OPEC’s WOO Reference Case, demand increases by close to 23 million barrels a day (mb/d) over the period 2010-2035, reaching almost 110 mb/d by 2035, with fully 80 per cent of the increase in global demand in developing Asia.

From a supply perspective, what is clear is that there are plenty of resources to meet these growth patterns. For oil, conventional and non-conventional resources are evidently plentiful for the foreseeable future. As in the past, technological advances will continue to extend the reach of the industry, reduce costs and unlock additional resources. This can be viewed in recent deep offshore advancements,
for example, in Brazil, as well as movements in shale gas and shale oil, although these are still in the early stages of development.

Nevertheless, both conventional and non-conventional resources require significant investment to turn them into future supply. For example, in OPEC’s WOO, over the period 2010-2035, upstream investment requirements in the oil industry amount to over US$3 trillion (2010 dollars), and this excludes investments in pipelines and other infrastructure.

OPEC’s commitment to sufficient and secure crude oil supplies is underscored in its Member Countries investments for the five-year period 2011-2015, which shows around 132 upstream projects on the table. This could translate into an investment figure of close to US$300 billion (bn) should all projects be realised. Taking into account all OPEC liquids, the net increase is estimated to be close to 7 mb/d above 2011 levels, although these investment decisions and timings will be influenced by an array of factors, such as the global economic situation and policy developments.

This represents a huge level of investment and clearly demonstrates the seriousness the organisation attaches to the need for adequate production capacity to be in place, not only to meet actual demand, but also to offer sufficient spare capacity.

It is important to stress, however, that the pace of future energy demand growth, and in turn investments, is affected by many uncertainties, such as the possibility for higher or lower economic growth rates, technology developments, particularly in transportation, and policies. For example, OPEC’s WOO 2011 shows that demand for OPEC crude by 2025 could be as low as 31 mb/d or as high as 38 mb/d. These feasible scenarios point to an uncertainty range in the billions of dollars. Such uncertainties constitute a great challenge for all stakeholders.

Of particular concern to producing countries are the policies of a number of consuming countries. Obviously, every country has the sovereign right to set its own policies, but it is essential that these provide a clear picture as to their impact on future oil consumption levels and overall energy supply and demand patterns. They need to be feasible, predictable and sustainable. And they should not discriminate against oil.

For example, there is the issue of biofuels. While biofuels are expected to play a greater role in the future, supported by direct and indirect government subsidies, it is not at levels once assumed. For first-generation biofuels, much concern has recently been expressed over the competition between food and fuel. There have also been reports on their possible negative impact on biodiversity, their potential to make scarce water resources, even scarcer, and, in most cases, their relatively high greenhouse gas emissions, when land use change effects are fully taken into account. Second-generation biofuels can overcome some of these concerns, but they are still far from being available for commercial use.

What is clear is that if there is no confidence in there being additional demand for oil, there is little incentive to invest. Why waste precious financial resources on unneeded capacity? On the other hand, if investments are not made in a timely and adequate manner, then future consumer needs might not be met. The supply and demand balance is essential to the overall health of the industry. Oversupply or a supply shortfall is detrimental to both producers and consumers.

It is important to appreciate and better understand the two sides of energy security: security of supply and security of demand. Both are essential elements of what
all stakeholders in the producer-consumer dialogue strive for: market stability.

A further factor related to market stability is of course prices. How oil prices may evolve in the future is a critical question for the world economy, for the oil industry and, in particular for those producing countries whose economies are still highly dependent on oil export revenues.

Over the past few years, oil prices have witnessed much volatility, and led many to ask whether price behaviour is being influenced by excessive speculation. In fact, this has been part of the recent collaborative work between OPEC, the IEF and the International Energy Agency (IEA), with the most recent workshop on the interactions between physical and financial energy markets taking place in Vienna at the end of last year.

What is evident is that speculative activities remain an issue in the current market. This can be viewed in the respective sizes of the paper and physical markets. Since 2005, there has been a sharp increase in the number of open interest futures and options contracts. At times it has surpassed three million contracts per day, equivalent to 3 bn b/d. This is 35 times the size of actual world oil demand.

Moreover, build-ups in large speculative positions on the crude futures markets have been a key factor behind the increased crude oil price volatility. For example, Figure 2 highlights the relationship between WTI prices and the speculative activity of the net long positions of money managers. A curb in speculative activities is needed.

It should also be noted that when prices rise the impacts are even more pronounced at the consumer end, where the effect of consuming country taxation is greatly felt. Group of Seven countries earn far more revenues from taxes on the sale of oil derivatives sold at the pump than OPEC Member Countries make from the sale of their crude oil. While OPEC has played its role by ensuring the market remains well supplied in crude, it is of course helpful if consuming countries that have a high level of taxation on oil products consider revising down these levels, at least when prices reach certain levels, to alleviate the impact on consumers.

Of course, there are other major challenges for the industry’s stakeholders, as well as for world leaders, in the years ahead.

Many of the world’s population continue to lack access to clean and safe modern energy services. It is a vital requirement in the often protracted struggle for socio-economic development, sometimes from a state of extreme poverty. Today, 1.4 bn people have no access to electricity and some 2.7 bn rely on biomass for their basic needs. It is essential everyone has access to reliable and sustainable modern energy services. Thus, energy poverty needs the urgent and critical attention of world leaders. The Rio+20 summit later this year is a great opportunity in this regard.

There is also the environmental challenge. It is important for our industry to continuously strive to improve its environmental footprint, both in production and use, operational efficiencies and recovery rates, and in the push for the development and use of cleaner fossil fuel technologies, such as carbon capture and storage. It should be recalled, however, that the petroleum industry has a long history of successfully reducing its environmental footprint, for example, in drilling, gas flaring and plant emissions. And the automotive industry, as well as the refining industry, has a good track record in continuously reducing the pollutant emissions of vehicles.

We also need to monitor developments in the United Nations (UN) climate change negotiations. It is essential that these multilateral negotiations reach an agreement that is comprehensive, balanced, fair and equitable; one that respects all the principles and provisions of the United Nations Framework Climate Change Convention and its Kyoto Protocol.

The industry should also not forget the human resource. With strong competition from other sectors for skilled staff and many in our industry approaching retirement, there is a need to address the difficulties in finding and hiring labour at the global level. This means concerted efforts to restore this essential capacity, by facilitating education and training in energy disciplines, and making the industry an attractive career choice.

Looking ahead, there is evidently much for the producers and consumers to talk about and cooperate on. The focus should be on finding common ground, looking for shared solutions, where and when appropriate, developing an environment that is conducive to reaching constructive end results, and having input from each and every stakeholder. The IEF’s informal producer-consumer dialogue is an essential ingredient in this as we look to advance market stability, improve transparency and provide greater predictability.

At OPEC, we believe in continuing to develop existing and new avenues of cooperation with innovative thinking, collaboration and swift action on key issues, many of which are complex, broad and inter-related. Our shared objective must be a stable and sustainable energy future in an increasingly interdependent world.