

World Energy Outlook 2010

Friday, December 3, 2010

Event Summary

On Friday, December 3, 2010, the CSIS Energy and National Security program hosted the International Energy Agency (IEA) as it presented the *World Energy Outlook 2010 (WEO)*. **Nobuo Tanaka**, the Executive Director of the IEA, introduced several topics covered by the report, including demand and supply trends in oil, energy poverty, and potential global energy “game-changers” such as China and the evolution of shale gas in the US and its impact on the global gas market. Tanaka also introduced a new scenario titled, “New Policy Pathway”, which evaluates potential policy changes in light of governments’ commitments to tackle climate change and energy insecurity. He noted that the longer the world waits to address its climate and energy supply issues, the more expensive and difficult it will be to fix the problem. Tanaka also emphasized that the new policy scenario highlights the absence of a clear pathway for the future.

Fatih Birol, the Chief Economist at the IEA, began by emphasizing four areas of uncertainty. First is the sustainability of the current economic recovery. Second is the decreased sensitivity of oil supply and demand to fluctuations in price and what this means for future prices and government response. Third are the implications of a “gas glut” and its impact on other fuels and fuel price regimes. Fourth is the uncertainty surrounding targets agreed upon by governments in the Copenhagen Accord and what such uncertainty signals to the energy sector.

Mr. Birol moved on to discuss the role of China and emerging countries and their role in the changing energy economy. China was the largest consumer of energy in 2009; however, its consumption per capita remains well below OECD countries. For example, a Chinese person consumes one-third of what an OECD person consumes and even with the projected growth the ratio will increase to only two-thirds of what an OECD person consumes by 2035.

Transportation is largely responsible for the increase in demand. Demand remains strong as even though prices rise, demand cannot be replaced by other fuel sources as oil has no alternatives in the transportation sector, unlike the electricity sector which is capable of shifting to coal or nuclear power.

Regarding transportation, the comparative context remains important. In the United States, 700 people out of every 1000 own a car and in Europe it is 500 out of every 1000. Comparatively, only 30 out of 1000 Chinese own a car and should China continue on its current trend of economic growth, its car ownership ratio will still be less than half of that in the United States.

Mr. Birol then focused on production, noting that the world will see “more oil from fewer producers.” A strong decline in non-OPEC producers is expected, specifically in the North Sea and in the United States.

To fill the gap, crude oil will need to come from OPEC members. According to IEA calculations, 30 million barrels a day will need to come from existing fields, while 60 million barrels a day will have to come from undiscovered fields, signifying the need to increase investment in exploration. Iraq is a crucial player in this scenario since without an increase in Iraqi production, it may be increasingly difficult to meet projected global demand, which is expected to grow from 2.5 million to 7 million barrels in the next 25 years. Part of this demand could be met by strong growth expected in Brazil, Kazakhstan and the Canadian oil sands.

Last year, the IEA predicted a gas glut and expects this to continue for the next decade. The availability of cheap gas makes investments in renewable energy technologies difficult. While renewables have been entering the main stream, they will require substantial financial support in order to continue to grow. Renewable subsidies today stand at \$50 billion.

Mr. Birol also touched on several other topics covered in the WEO 2010 such as China's development of low-carbon technology which is expected to drive down the cost of production, the role of the Caspian Sea in shoring up global energy security, as well as the costs and implications of energy poverty.

Finally, Mr. Birol addressed what must be done to keep the climate from increasing by 3.5 degrees Celsius. While it has generally been acknowledged that such an increase would be disastrous, the agreements reached at Copenhagen remained vague. Mr. Birol noted that the longer nations wait to act on climate change the higher the projected costs of action. Action will require change not only in the transportation sector, but also the development and deployment of low-emission technology.

Ambassador Richard H. Jones, the Deputy Executive Director of the IEA, gave the closing remarks. He emphasized that today's energy policies are not sufficient to stop the worsening of climate change. He stated that the age of cheap energy is over. There needs to be an increased focus on natural gas in the short-term and continued support for renewable energy sources in the long-term. Governments need to stop fossil fuel subsidies and encourage investment in energy efficiency and low-carbon technologies, ideally completing a de-carbonization of electricity production and switch to electric vehicles by 2050.

Currently, the IEA has been working to spread awareness of the issues in order to generate discussion and facilitate action. IEA staff and officials have been meeting with other government agencies; producing publications and events; utilizing diplomatic engagement; training non-OECD member countries' analysts and government officials; running joint engagements with Russia, China, and India; creating roadmaps for the development of new technologies, and collaborating with other peer global energy groups as a means by which to attain these goals.