

The Future of Natural Gas

Witnesses

Howard Gruenspecht

Acting Administrator, Energy Information Administration

Ernest Moniz

Co-Director of MIT Coal Study, Massachusetts Institute of Technology

George J. Biltz

Vice President of Energy and Climate Change, Dow Chemical Company

Committee Members Present

Jeff Bingaman (D-NM), Chairman

Lisa Murkowski (R-AK), Ranking Member

Chris Coons (D-DE)

Joe Manchin III (D-WV)

Mary Landrieu (D-LA)

Mark Udall (D-CO)

Al Franken (D-MN)

The Senate Energy and Natural Resources committee held a hearing on July 19, 2011 regarding the Massachusetts Institute of Technology's (MIT) Energy Initiative report titled "The Future of Natural Gas." This study looked at the economics, uncertainty of supply, infrastructure needs, geopolitical implications, global markets, needs for natural gas research and development, and opportunities for capitalizing on natural gas supply. Major findings of the report concluded that there is an abundant supply of low cost natural gas in the world, and natural gas can play a major role in a future carbon-constrained economy.

Chairman Jeff Bingaman (D-NM) said in his opening statement that many factors have contributed to the increasing importance of using natural gas as a resource. Some of these factors are the new applications of technologies like horizontal drilling and hydraulic fracturing, an international focus of reducing greenhouse gases, the reduction of dependence on foreign oil, and the creation of jobs due to domestic manufacturing. Bingaman believes that the U.S. holds a "greatly expanding unconventional gas resource." He emphasized that the U.S. must provide a transparent and safe approach to well site management in order to manage environmental concerns.

In Ranking Member Lisa Murkowski's (R-AK) opening statement, she said that natural gas resources have already benefited the nation by creating jobs and growing the nation's economy. She further commented that "natural gas would move our nation in the right direction in terms of energy security, economic growth, and environmental protection." In order to achieve the three goals, Murkowski stated that the nation's resources must be developed responsibly.

Howard Gruenspecht provided in his testimony recent natural gas developments and projections. He also commented on the Energy Information Administration's (EIA) evaluation of the nation's natural gas reserves. Much of the focus was on the uncertainties of natural gas. He elaborated on demand uncertainties of natural gas and cost uncertainties related to shale gas production and consumption.

Ernest Moniz provided results published in MIT's study. He stated that "natural gas would be a 'bridge' to a low-carbon future." Moniz elaborated on the findings of the report. He cautioned that the U.S. needs to look at the economic, security, and political

significance of natural gas whereas the international gas trade fails to focus on these matters.

George Biltz stated that Dow Chemical is an energy intensive company by using naphtha, natural gas, and natural gas liquids to make products essential to the nation and believes that U.S. energy policy will be affected greatly by a shift to natural gas. He reminded the committee that natural gas will provide jobs and the production of unconventional gas needs to be done in an environmentally responsible manner. He also said that “a comprehensive and sustainable national energy policy is long overdue. Without an energy policy we are in danger of repeating an over-reliance on natural gas and a return to the price volatility that destroyed American manufacturing jobs in the last decade.”

Many expressed concern that a potential price shock could occur to consumers if natural gas is integrated into a global market. Gruenspecht answered that the EIA has not looked at the effects of the U.S. exporting natural gas but as demand increases it is understood that there will not only be an increase in price but also in domestic jobs. Moniz stated that there is no reasonable concern regarding natural gas price increases as long as natural gas has substitution possibilities like natural gas for transportation, industry, and electricity. Biltz emphasized that the nation would need to balance supply and demand in order to keep prices low.

Murkowski and Mary Landrieu (D-LA) were concerned with the recent New York Times publication of emails leaked from EIA regarding natural gas which portrayed natural gas in a negative light. Both senators stated that the committee relies on the EIA for reliable information and emphasized the importance of EIA being independent and impartial in order for the energy committee to create strong policy. Gruenspecht stated that the EIA did look at the “heavily redacted” article and the EIA found nothing of concern regarding the methodology, data, and analysis. He believes that the EIA is doing a “solid job” in tracking shale gas and reiterated that the EIA “stand[s] behind shale gas.”

Senator Joe Manchin (D-WV) asked the panel what environmental concerns the committee should consider in pursuing natural gas production. Moniz answered that there would need to be tough regulations put in place. He emphasized, in relation to injecting chemicals into wells, that a full disclosure of injected contents should be required. Moniz commented that MIT has not found any evidence of hydraulic fracturing harming the water resources. He said that though there have been problems in the past, nearly half of all of the environmental problems have been because of faulty well completions.

Bingaman mentioned that if the U.S. were to have an ample supply of natural gas for the future, the viability of carbon capture and sequestration (CCS) is brought into question. He asked if CCS would be economically feasible. Biltz answered that CCS is a great way to reduce carbon in regards to coal power plants as demonstrated with the CCS pilot project in West Virginia. Murkowski asked if the committee is doing enough to encourage CCS gas to liquid conversion. Moniz answered that while the market is moving in that direction he feels the processing infrastructure is not there yet.

Bingaman raised concerns over the potential consequences the nation may face with an abundant, cheap, and long lasting resource like the nation has seen with oil. He asked whether these are valid concerns and if a policy needs to be put into place to avoid them. Biltz answered that policies do need to be put into place to manage supply and demand as the nation transitions to a lower carbon future. Moniz commented that natural gas will only work as a bridge when there is strong demand management.

Written testimonies from the witnesses and a documented webcast can be found at the committee web page.