

Comment by Email

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Natural Gas Supply/Demand Notice of Inquiry

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The following are from Washington State in response to the Department of Energy request for comments on mid-term natural gas supply and demand. Shortened versions of the questions presented by DOE are shown in italics.

1. What is the outlook for balancing natural gas supply and demand through 2015 to ensure reliable and affordable energy for American consumers?

The key word in the question above is “affordable”, in the absence of any government or private action the market will continue to reach a balance through curtailment and demand destruction induced by very high gas prices. In 2003 our state energy office began to research the causes of the high and volatile prices buffeting the natural gas markets and published a report with our conclusions and recommendations in 2004. Our conclusions about future supply, which are echoed in more detailed reports by the Energy Information Administration (EIA) and the National Petroleum Council (NPC), are summarized below:

- Supply growth forecasts developed through 2001 were too optimistic and had the unfortunate effect of encouraging natural gas consumption, particularly in the electric power generation sector.
- More recent natural gas supply and price forecasts by the EIA, NPC, the California Energy Commission and others are more realistic, but may still be too optimistic.
- To balance supply and demand at reasonable prices three new sources of natural gas supply are required: liquefied natural gas (LNG) import facilities, additional unconventional resources and natural gas from the Arctic.
- Higher wellhead natural gas prices in the \$5(+) per MMBtu range are necessary to incent these new supply resources.
- Natural gas markets will remain tight and prices high (wellhead prices greater than \$5 per MMBtu) through 2010. Consumers, especially those with low incomes, will be negatively impacted during this time period.

In our study we also assessed the demand side of the natural gas market. Our conclusions about current and future natural gas demand are summarized below:

- Much of the national demand growth over the past 10 years has been driven by increased natural gas use in the electric power generation sector. High prices will slow gas future demand growth in the power and other sectors.
- Higher natural gas prices have resulted in demand destruction in the industrial sector and created a substantial financial burden in the residential and commercial sectors.
- Higher natural gas prices increase the need for and improve the payback of direct and indirect gas efficiency measures: see below for further comments on natural gas efficiency measures.
- Renewable energy sources, such as wind power electricity generation, are cost competitive with natural gas fired generation, and thereby can effectively reduce the current and future demand for natural gas.

Our investigation into the natural gas markets leads us to conclude that some new natural gas resources such as Arctic gas and LNG import capacity will be necessary in the 2005-2015 timeframe. We have also concluded that mitigation of demand growth offers the most powerful cost effective mid-term tool for keeping natural gas at an “affordable” level. Washington State is currently working in several areas to reduce demand for natural gas, save consumers money, and ease the price pressure in our regional natural gas market. Some of the areas where Washington state is active include:

- Developing legislation on integrate resource planning (IRP) which would require all utilities to undertake regular planning about their future supplies and demand. The IRP process will promote sound energy planning and increase investments in cost-effective efficiency and renewable resources.
- Investigating the decoupling process whereby a utilities profit is separated from the volume of natural gas that the utility sells.
- Encouraging the procurement by Washington utilities of renewable energy resources, such as wind power, through the IRP process. This process diversifies the utility portfolios, mitigates fuel price risk and reduces the need for natural gas-fired electricity generation.
- Developed appliance efficiency standards for appliances not covered by federal efficiency standards. This measure directly reduces demand for electricity and indirectly the demand for natural gas.
- Developed building codes that contain advanced energy efficiency requirements.
- Require all new buildings constructed with state funds to meet LEED silver standard requirements.
- Our Governor has proposed legislation providing tax credits of up to \$1.5 million against the state public utilities excise tax, the value of which gas suppliers use to help small businesses finance energy-saving improvements.
- A \$4.5 million, one-time increase in funding is provided in the Governor’s budget to improve energy efficiency for low-income households through the existing Energy MatchMaker grant program. As a result, about \$9 million of the \$100 million Housing Trust Fund is spent on Energy Matchmaker grants for improving the energy efficiency in housing.

2. What data and analysis other than the recent EIA and NPC reports have provided insight into natural gas supply and demand?

Washington State, along with 12 western states and 3 Canadian provinces, is involved in a study known as the Western Natural Gas Assessment. In 2004 the Western Governors Association requested that the Western Interstate Energy Board take on this study in response to concerns about high natural gas prices and adequacy of supplies in the western US and Canada. The first phase of the study will be completed by early 2006 and focuses on natural gas markets and supply adequacy during the time frame from 2005 to 2015. Our office has often referred to a series of analyses out of Lawrence Berkeley National Laboratory that explore the potential for energy efficiency and renewable energy to mitigate natural gas price risks. An example of this work is the following: http://www.naruc.org/associations/1773/files/bolinger_fcs05.pdf

3. What actions should the federal government undertake for balancing natural gas supply and demand?

We urge the federal government to investigate some of the same natural gas demand reduction measures that Washington state and other states are pursuing. These measures include:

- Promote the cost-effective development of renewable energy resources, such as wind power.
- Promote purchases of “green” power by federal government entities.
- Increase appliance efficiency standards in a cost-effective manner.
- Adopt LEED building efficiency standards for new or remodeled federal buildings.
- Direct DOE to increase technical and financial support to increase natural gas and electricity energy efficiency in the residential, commercial and industrial sectors.
- Direct DOE to increase natural gas and electricity efficiency R&D expenditures.
- Provide financial support to state energy offices to promote education on and implementation of natural gas efficiency improvements.