



Energy & Infrastructure Program

Energy Project

New Dynamics of the U.S. Natural Gas Market

A Report from the Staff of the Bipartisan Policy Center

Overview and purpose. The staff of the Bipartisan Policy Center (BPC) sought to answer key policy questions that have emerged on natural gas: What are the price impacts when multiple demand drivers act in concert? How will price impacts vary under high and low natural gas supply assumptions?

In order to answer these questions, BPC staff undertook an energy scenario modeling exercise examining how new unconventional natural gas supplies might affect supply and demand dynamics in the domestic energy sector. The BPC's scenarios are intended to bound the range of plausible outcomes for natural gas supplies and demand over the next few decades, as well as provide insight into potential impacts in terms of fuel mix, energy prices, and opportunities to expand natural gas use in ways that improve the environmental performance of the U.S. energy system.

Key Findings

1. The United States has ample domestic supplies to meet future demand for natural gas without significant price increases.
2. Liquefied natural gas (LNG) exports are unlikely to have a large impact on domestic prices.
3. Increased natural gas consumption in the future will be primarily driven by overall economic growth and increased demand in the electric power and industrial sectors.
4. The industrial sector could be a major source of new demand for natural gas if projected growth in the U.S. manufacturing base is realized.
5. Natural gas vehicles stand to make significant gains in market share and vehicle miles traveled by 2035.
6. In the electric power sector natural gas leads, but renewables also play a significant role.
7. Energy-related carbon dioxide emissions are primarily driven by overall economic growth.
8. Pricing carbon results in greater carbon dioxide emissions reductions.





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Importance of natural gas. Rapid technological advancements in horizontal drilling and hydraulic fracturing have unlocked a large volume of gas resources in North American shale gas formations. These developments have game-changing implications for the domestic supply outlook for natural gas and for the potential to expand natural gas use in the U.S. economy.

How this study differs from others. A number of studies over the past few years have examined the impact of individual supply and demand drivers, and have been instrumental to furthering understanding of this issue. BPC sought to build on this work by analyzing the combined effect of multiple natural gas demand drivers under a range of supply assumptions.

How to use the results. This BPC analysis was not designed to produce projections of how U.S. energy markets are likely to evolve in the future. Rather, the analysis is designed to explore the relative impact of different supply and demand drivers that are likely to shape U.S. energy markets—and the market for natural gas in particular—over the next several decades. Thus it is more informative to concentrate on how each scenario varies from the BPC Reference case and from the other scenarios.

Advisory Group. To solicit input on our analysis, including input on supply and demand assumptions, scenarios, and results, BPC convened an advisory group of energy policy experts and stakeholders. Advisory group members provided invaluable technical assistance, information, and guidance to BPC staff throughout this process. While advisory group members were invited to review and provide comments on drafts of this report, they do not necessarily endorse each of the findings and conclusions put forward here.

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