

# Background

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## Natural Gas Policy: Access, Not Over-Regulation and Subsidies

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**Abstract:** *Natural gas is a plentiful domestic resource with tremendous potential to increase the U.S. energy supply. Tapping this resource will create jobs and boost an ailing economy. More affordable energy will support additional business formation and growth. The role of the government is to regulate—not over-regulate and hamper—natural gas production. Hydraulic fracturing (fracking)—which has never been shown to cause environmental damage—should not be held hostage to unfounded concerns and narrow interests. U.S. policymakers should focus on commonsense access and reasonable safety measures—not burdensome over-regulation and market-distorting subsidies.*

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The need for plentiful, affordable energy, as well as a political interest in reducing greenhouse gas emissions and dependence on foreign oil has pushed natural gas to the forefront of U.S. energy policy. Natural gas is a plentiful domestic resource that has tremendous potential to increase energy supply and help grow the economy. Tapping this resource will create jobs, directly, in the energy sector, and indirectly, through support activities, such as hotels, restaurants, and local suppliers. Even more broadly, more affordable energy supports further business formation and growth, since energy costs are a critical input cost for most businesses.

Unfortunately, some policymakers are trying to promote natural gas with subsidies for natural-gas-powered vehicles and infrastructure. Others are pushing for more regulation due to environmental concerns

### Talking Points

- Domestic natural gas production has increased over the past few years. This has been accompanied by an increase in estimates of reserves in the U.S.
- Hydraulic fracturing makes it possible to extract gas from areas where it had previously been deemed unfeasible. High-pressure fluids are injected underground to free the gas trapped beneath rock formations. This method to produce natural gas has been used for decades.
- Natural gas production is subject to both federal and state regulations. But states are in a better position than federal regulators to employ local knowledge and engage communities to effectively assess the economic benefits and manage any environmental concerns.
- Natural gas has many important uses in our daily lives and across many economic activities. Congress should focus natural gas policy on increasing access and opening markets, not on unreasonably increasing regulations that hamper production or providing subsidies that dictate its usage.

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over a critical part of the gas-extraction process, hydraulic fracturing. The reality, however, is that hydraulic fracturing is a proven process that should not be subject to overly burdensome regulations. All energy policies, including those for natural gas, should focus on increasing access, opening markets, and ensuring safe operations—not unreasonably increasing regulations or subsidizing technologies to force them into the marketplace prematurely.

### **Natural Gas: An Abundant and Diverse Resource**

Natural gas has many important applications; it accounts for approximately 25 percent of the total energy consumed in the United States.<sup>1</sup> It is a major source of America's electricity generation, providing 23 percent today. Natural gas is not only important for electricity generation for heating and cooling homes, but also for stoves, furnaces, and water heaters. Furthermore, natural gas has a number of industrial applications. Natural gas and other gases extracted from natural gas provide a feedstock for fertilizers, chemicals and pharmaceuticals, waste treatment, food processing, fueling industrial boilers, and much more. More and more cars and buses are running on natural gas. The United States has 110,000 natural gas vehicles (NGVs), and more than 12 million NGVs are on the roads worldwide.

According to the Energy Information Administration (EIA), the United States consumed 24.1 trillion cubic feet of natural gas in 2010.<sup>2</sup> A new study from the Massachusetts Institute of Technology estimates that, at current consumption rates, the U.S.

has 92 years worth of natural gas.<sup>3</sup> Improved exploration and production technologies, such as the use of hydraulic fracturing for shale gas extraction, have increased proven reserves in states like Pennsylvania, New York, Texas, Oklahoma, Arkansas, and Louisiana, also increasing regional interest in natural gas. There have been some differences in estimates of recoverable gas. The EIA and the Department of the Interior's United States Geological Survey (USGS) differ widely on their gas estimates of the Marcellus shale gas formation in New York, Pennsylvania, and West Virginia, but both agencies estimate a significant amount of natural gas.<sup>4</sup>

### **Hydraulic Fracturing: Important, Safe, and Regulated**

These new estimates of the amount of gas that is recoverable from shale formations has also increased concern for the method of extraction, hydraulic fracturing. Hydraulic fracturing, known as "fracking," is a long-proven process by which producers inject a fluid, composed of 99 percent water, and sand into wells to free oil and gas trapped in rock formations.<sup>5</sup> Used in over one million wells in the United States over more than six decades, fracking has been successfully used to retrieve over 7 billion barrels of oil and over 600 trillion cubic feet of natural gas.<sup>6</sup> Fracking is subject to both federal and state regulations and there have been no instances of contamination to drinking water. Groundwater aquifers sit thousands of feet above where fracking takes place, and studies by the Environmental Protection Agency (EPA), the Ground Water Protection

1. U.S. Energy Information Administration, "Primary Energy Consumption by Source," Table 1.3, May 2011, at [http://www.eia.gov/totalenergy/data/monthly/pdf/sec1\\_7.pdf](http://www.eia.gov/totalenergy/data/monthly/pdf/sec1_7.pdf) (September 13, 2011).
2. U.S. Energy Information Administration, "Natural Gas Consumption by End Use," August 29, 2011, at [http://www.eia.gov/dnav/ng/ng\\_cons\\_sum\\_dcu\\_nus\\_a.htm](http://www.eia.gov/dnav/ng/ng_cons_sum_dcu_nus_a.htm) (September 13, 2011).
3. "The Future of Natural Gas," Massachusetts Institute of Technology Energy Initiative, 2010, at <http://web.mit.edu/mitei/research/studies/report-natural-gas.pdf> (September 13, 2011).
4. U.S. Energy Information Administration, "Review of Emerging Resources: U.S. Shale Gas and Shale Oil Plays," July 8, 2011, at <http://www.eia.gov/analysis/studies/usshalegas/> (September 13, 2011), and U.S. Geological Survey, "USGS Releases New Assessment of Gas Resources in the Marcellus Shale, Appalachian Basin," August 23, 2011, at [http://www.usgs.gov/newsroom/article.asp?ID=2893&from=rss\\_home](http://www.usgs.gov/newsroom/article.asp?ID=2893&from=rss_home) (September 13, 2011).
5. U.S. Department of Energy, "Modern Shale Gas Development in the United States: A Primer," April 2009, at [http://www.netl.doe.gov/technologies/oil-gas/publications/epreports/shale\\_gas\\_primer\\_2009.pdf](http://www.netl.doe.gov/technologies/oil-gas/publications/epreports/shale_gas_primer_2009.pdf) (September 13, 2011).
6. Institute for Energy Research, "Hydraulic Fracturing—Is It Safe?" May 3, 2011, at <http://www.instituteforenergyresearch.org/2011/05/03/hydraulic-fracturing-is-it-safe/> (September 13, 2011).

Council, and other independent agencies have found no evidence of groundwater contamination.<sup>7</sup> Where there have been unwanted environmental outcomes—such as gas migration—they were the result of poor well construction or problems with the concrete and steel casings around the well bore. Those instances have been rare, and not a result of the fracking process itself. Hydraulic fracturing will be a critical process in developing energy supplies in the future. The National Petroleum Council estimates that fracking will allow 60 percent to 80 percent of all domestically drilled wells in the next 10 years to remain viable. Moreover, the fracking process has opened up new areas for oil production.<sup>8</sup>

### Let the Market Decide How to Use Natural Gas

The wide variety of uses for natural gas to provide energy is a good reason for the government to steer clear of dictating which producers are allowed to use natural gas. Yet that is exactly what the flawed bipartisan New Alternative Transportation to Give Americans Solutions (NATGAS) Act does. By providing preferential tax treatment to subsidize the production, use, and purchase of NGVs as well as supporting infrastructure, the government picks NGVs as a winner at the expense of all the other applications for natural gas. The stated goal of the bill is to promote transportation-fuel competition and reduce foreign oil dependence and greenhouse gas emissions. It does neither.

The market distortion in the NATGAS bill causes a number of problems. Rather than increasing competition, a special endorsement from the government gives one technology an unfair price advantage over others. Further, subsidies reduce the incentive for that technology to become cost-competitive, encouraging dependence on preferential government treatment. Targeted tax credits distort the

competitive process that so capably yields affordable and viable products, moving the decision-making process from the marketplace to Washington.

Because of the diverse applications of energy sources and fuels, price signals, not legislative attempts to manipulate the market, should guide how we use energy. If the price of natural gas increases, as it has in the past, producers will switch to a more cost-effective source of energy. The same is true for oil in the transportation sector. Despite the popular rhetoric that “Americans are addicted to oil,” they will happily stop using oil when a more economically viable alternative exists. When politicians attempt to promote certain energy use with subsidies and mandates, they ignore the complexity and diversity of energy markets, as well as the unintended consequences of their policies.

### Getting the Policies Right: A Huge Economic Boon

Increasing America’s natural gas supply would provide tremendous relief to an ailing economy; in fact, several states have already benefited tremendously from increased production. University of Wyoming professor Timothy J. Considine estimates that the total value added in gross regional production to Pennsylvania from fracking in the Marcellus shale formation was \$4.8 billion and generated more than 57,000 jobs.<sup>9</sup> A recent study by The Manhattan Institute projects that ending New York’s moratorium on hydraulic fracturing would create up to 18,000 jobs in the southern tier and western New York and increase economic output by \$11.4 billion. These figures increase significantly if production expands to Utica’s shale supply and southeastern New York.<sup>10</sup> Natural gas production can help expand the economy if the government can get the policies right. Specifically, Congress and the Administration should:

7. Environmental Protection Agency, *Evaluation of Impacts to Underground Sources of Drinking Water by Hydraulic Fracturing of Coalbed Methane Reservoirs*, June 2004, at [http://www.epa.gov/safewater/uic/pdfs/cbmstudy\\_attach\\_uic\\_exec\\_summ.pdf](http://www.epa.gov/safewater/uic/pdfs/cbmstudy_attach_uic_exec_summ.pdf) (September 13, 2011), and U.S. Department of Energy, “Modern Shale Gas Development in the United States: A Primer.”
8. U.S. Department of Energy, “Hydraulic Fracturing,” at <http://www.netl.doe.gov/technologies/oil-gas/publications/eordrawings/Color/colhf.pdf> (September 13, 2011).
9. Timothy J. Considine, “The Economic Impacts of the Marcellus Shale: Implications for New York, Pennsylvania, and West Virginia,” a report to the American Petroleum Institute, July 14, 2010, at <http://www.api.org/policy/exploration/hydraulicfracturing/upload/API%20Economic%20Impacts%20Marcellus%20Shale.pdf> (September 12, 2011).

- **Open areas for more natural gas exploration.** Overlapping congressional and presidential restrictions on drilling for energy in 85 percent of the Outer Continental Shelf (OCS) have stood in the way of both oil and natural gas production. The same is true onshore, where restrictions have locked up access to abundant supplies of energy. Congress should allow access to oil and gas reserves both onshore and offshore and establish a sensible environmental and regulatory review process where leases can be sold and permits can be issued in a timely fashion.
- **Regulate Appropriately.** Despite having no need to do so, Members of this Congress and previous Congresses have attempted to grant authority to the EPA to regulate hydraulic fracturing under the Safe Drinking Water Act. The EPA is currently studying the relationship between fracking and drinking water with a final report not expected until 2014. The draft review of the congressionally mandated study is already under question. In a recent testimony before the Committee on Science, Space, and Technology, University of Houston professor Dr. Michael Economides warned that the EPA is selecting only four out of thousands of wells and includes no input from those who have expertise in hydraulic fracturing.<sup>11</sup> Even the Department of Energy criticized the EPA study for “selective focus” on “negative outcomes.” Congress should limit any excessive and unnecessary unilateral decision making from the EPA relating to regulation of natural gas production. Federal regulators do play an important role in maintaining safety. Regulators conduct general environmental drilling inspections and have authority to require producers to contain, report, and clean up any spills. But that role should not subject the industry to onerous regulations that will unnecessarily shut down production or duplicate state regulations. Moreover, that role should be re-examined to ensure that regulations adequately assess and assign risk, with the private sector bearing a larger responsibility for safety along with a larger share of the risk and liability.<sup>12</sup>
- **Empower the states.** The states with tremendous natural gas reserves have the most to gain economically, and have the greatest incentive to protect their environments. States have qualified experts to handle drilling permits, construction of wells, wastewater and water use, air pollutants, temporary well abandonment, and other activities associated with natural gas production.<sup>13</sup> Texas Governor Rick Perry recently signed a bill into law that would force companies to disclose the chemicals they use in the hydraulic fracturing process while protecting proprietary information. New York Governor Andrew Cuomo recently took a step in the right direction by seeking to lift the ban on fracking on private property in his state. States, not federal regulators, are in the position to employ local knowledge and engage communities to effectively assess the economic benefits and manage any environmental concerns.
- **Eliminate subsidies for the transportation sector.** The government has already picked winners and losers in the marketplace when it comes to alternative fuel and vehicle use. The government has incentives in place to make and purchase electric cars, including hybrid electric

10. Timothy J. Considine, Robert W. Watson, and Nicholas B. Considine, “The Economic Opportunities of Shale Energy Development,” Manhattan Institute *Energy Policy and the Environment Report* No. 9, May 2011, at [http://www.manhattan-institute.org/pdf/eper\\_09.pdf](http://www.manhattan-institute.org/pdf/eper_09.pdf) (September 12, 2011).

11. Michael J. Economides, testimony before the House Committee on Science, Space, and Technology, May 11, 2011, at <http://science.house.gov/sites/republicans.science.house.gov/files/documents/hearings/Congressional%20Testimonial%20economides.pdf> (September 13, 2011).

12. For a comprehensive solution to energy liability, see Nicolas D. Loris, Jack Spencer, and James Jay Carafano, “Oil Spill Liability: A Plan for Reform,” Heritage Foundation *Backgrounder* No. 2446, August 2, 2010, at <http://www.heritage.org/research/reports/2010/08/oil-spill-liability-a-plan-for-reform>.

13. U.S. Department of Energy, “State Oil and Natural Gas Regulations Designed to Protect Water Resources,” May 2009, at <http://www.gwpc.org/e-library/documents/general/State%20Oil%20and%20Gas%20Regulations%20Designed%20to%20Protect%20Water%20Resources.pdf> (September 13, 2011).

vehicles (HEVs), plug-in hybrid electric vehicles (PHEVs), and battery electric vehicles (BEVs). Subsidies, protectionist tariffs, and a mandate to produce 36 billion gallons of biofuels by the year 2022 also exist. If Congress truly wants to open the transportation sector to competition, it should eliminate the subsidies, mandates, and tax credits (with an offsetting tax reduction), and consider market-oriented policies—such as full expensing and lowering corporate tax rates.

- **Ensure access to foreign markets.** Natural gas prices have been low in the United States for the past two and a half years.<sup>14</sup> As the country recovers from the economic downturn, businesses and households will demand and use more natural gas. Not only will increasing supply help offset the price effects and meet that rising demand, but the abundance of natural gas in the United States should open opportunities to export natural gas to areas of the world where prices are up to three times as high as those in the United States. In May, the U.S. Department of Energy approved a request from Cheniere Energy to export 2.2 billion cubic feet of natural gas per day. Cheniere can export to “any country that has, or in the future develops, the capacity to import LNG [liquefied natural gas] and with which trade is

permissible.”<sup>15</sup> This should be standard policy. If the price of natural gas in the United States rises as a result, the markets will adjust accordingly, but that should not be a reason to prevent the exportation of natural gas.

### Recognize the Power of Natural Gas

President Ronald Reagan famously said that “Government’s view of the economy could be summed up in a few short phrases: If it moves, tax it. If it keeps moving, regulate it. And if it stops moving, subsidize it.” When it comes to natural gas, Washington is offering contradictory policies: more regulation and more subsidies. Natural gas in the United States is an important source of energy, and increasing production can help meet rising energy demand, create jobs, and drive economic growth. The way for that to occur is not by shutting down fracking, implementing unnecessary regulations, or promoting natural gas vehicles with targeted tax breaks, but by increasing access to the country’s natural gas reserves and opening opportunities for domestic producers to sell natural gas abroad.

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14. U.S. Energy Information Administration, “Natural Gas: Natural Gas Prices,” August 29, 2011, at [http://www.eia.gov/dnav/ng/ng\\_pri\\_sum\\_dcu\\_nus\\_a.htm](http://www.eia.gov/dnav/ng/ng_pri_sum_dcu_nus_a.htm) (September 12, 2011).

15. Press release, “Cheniere Receives Additional DOE Approval, Authorization to Export Natural Gas as LNG to all LNG Importing Nations Concluded,” Cheniere, May 20, 2011, at <http://phx.corporate-ir.net/phoenix.zhtml?c=101667&p=irol-newsArticle&ID=1566413&highlight> (September 12, 2011).