

The State of American Energy: Executive Summary

At the start of 2012, high unemployment and stagnant economic growth continue to plague the nation. The U.S. oil and natural gas industry stands ready to address these challenges head-on by creating well-paying jobs, stimulating economic growth, and generating government revenues—all while improving America's energy security. Thankfully, these critical goals can be achieved with sensible energy policies.

America's oil and natural gas industry is prepared to work with policymakers to:

Create Jobs

- Marcellus Shale development could create 76,000 jobs in Pennsylvania, 20,000 jobs in New York and 17,000 jobs in West Virginia by 2015.^{1,2} Development of Ohio's Utica Shale could support more than 204,000 jobs in just four years as well.³
- Developing Canadian oil sands and creating sufficient pipeline capacity, including expansion of the Keystone XL pipeline, could create more than 500,000 U.S. jobs by 2035.⁴
- Through expanded access to domestic resources, the oil and natural gas industry could create 1.4 million jobs by 2030—in addition to the 9.2 million American jobs it already supports.^{5,6}

Stimulate the Economy

- The industry pays the federal government approximately \$86 million a day—or about \$31 billion a year—in rents, royalties, bonuses and corporate taxes.⁷
- In 2009, the industry supported \$1.1 trillion in U.S. economic activity—or 7.7 percent of America's gross domestic product.⁸
- With policies that encourage development and an efficient regulatory process, the industry could provide an additional \$800 billion in government revenue through 2030.⁹

Secure Future Energy

- The industry could increase oil and natural gas production by up to 76 percent in 2030 with access to additional areas both offshore and onshore.¹⁰
- With the right policies to encourage domestic oil and natural gas development, American and Canadian energy supplies could provide 100 percent of U.S. liquid fuel needs within 15 years.¹¹
- U.S. refineries compete with product imports; therefore, policies that maintain a viable domestic refining industry are a matter of national and economic security.

Developing Domestic Energy Resources

If shale gas resources are included, the United States has the most technically recoverable oil and natural gas resources in the world: 24 percent more than Saudi Arabia, more than 7 times that of Brazil and 10 times more than China.¹² America's domestic resources are likely to be even larger, since the industry has a track record of producing much more than original estimates project, thanks to advanced technologies that continue to improve America's ability to find and produce domestic oil and natural gas resources.

- Offshore, America has nearly 101 billion barrels of oil and 480 trillion cubic feet of natural gas in federal areas spanning the Atlantic and Pacific Oceans, as well as the Gulf of Mexico and the Chukchi and Beaufort Seas, according to the former Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE).¹³
- Onshore, roughly 33 states hold an estimated 88.6 billion barrels of oil and 654.3 trillion cubic feet of natural gas, according to the Bureau of Land Management (BLM).¹⁴

Public Policy Impacts on Domestic Energy

Despite the clear benefits of developing domestic oil and natural gas resources—job creation, economic growth and energy security—the industry still faces public policy obstacles:

- 85 percent of America’s offshore acreage is off-limits to development, and 60 percent of federal onshore lands are off-limits;¹⁵
- Sluggish leasing and permitting processes are also barriers that create uncertainty for an industry that requires long lead times; and
- Overly burdensome regulations discourage investment—even though the president himself has called for the elimination of federal regulations that overly burden those businesses that are trying to create jobs.¹⁶

The U.S. oil and natural gas industry needs legislative, regulatory, permitting and leasing processes that are thorough, efficient and predictable. That means allowing for exploration and production of much-needed energy resources and ensuring that development takes place in a responsible and sustainable way without unnecessary regulatory impediments or delays.

The consequences of poor public policy choices are undeniable. For instance, as a result of the offshore drilling moratorium and uncertainty about future permitting, 11 drilling rigs, representing 14 projects, have left the Gulf of Mexico since April 2010, taking \$21.4 billion in investments with them.¹⁷

In addition:

- An estimated 91,000 jobs were lost as a result of the moratorium in 2011; and
- An estimated \$18.3 billion of previously planned capital and operating expenditures did not occur in 2010 and 2011.¹⁸

Canada, one of the United States’ strongest allies and the largest supplier of imported oil to the United States, is prepared to do even more, but the Keystone XL pipeline project is still awaiting approval after several years of review. Project approval would provide a significant boost to U.S. energy security, bringing an extra 830,000 barrels of oil per day to the market—about half of what America imports from the Persian Gulf.^{19,20}

Currently, the lack of sufficient pipeline capacity from Canada constricts Gulf Coast refineries’ access to an essential market of available oil. Additional pipeline capacity could provide U.S. refineries more supply flexibility, thereby increasing U.S. energy security and retaining jobs.²¹

“The natural gas and oil industry is vital to the U.S. economy, generating millions of high-paying jobs and providing tax revenues to federal, state, and local governments.”

— National Petroleum Council
September 2011²²

What the Industry is Doing

The U.S. oil and natural gas industry has a long-standing commitment to safety and environmental protection, with more than 600 standards covering every aspect of the oil and natural gas business: exploration and production, refining, measurement operations, marketing and pipeline operations. From “wells to wheels,” the industry strives to keep workers, consumers, surrounding communities and the environment safe.

Since 2000, the industry has invested more than \$2 trillion in U.S. capital projects to advance all forms of energy, including alternatives and renewables—roughly \$6,400 for each American citizen.²³

What’s more:

- Between 2000 and 2010, the industry invested \$71 billion in technologies that reduce greenhouse gas (GHG) emissions, far more than the federal government (\$43 billion), and almost as much as the rest of private industry combined (\$74 billion).²⁴
- The industry also directly reduced GHG emissions by almost 56 million metric tons of CO₂ equivalent between 2009 and 2010.²⁵
- The industry’s investment in emerging technology is significant, representing more than \$9 billion in non-hydrocarbon technologies, such as wind power, from 2000 to 2010, which was one of every five dollars invested from all sources.²⁶
- Since 1990, the U.S. refining industry has spent about \$128 billion on environmental upgrades, including those to produce cleaner fuels.²⁷

The industry also invested nearly \$38 billion in development of clean-burning natural gas from shale between 2000 and 2010, and production of natural gas from shale formations grew by an average of 48 percent per year from 2006 to 2010.^{28,29}

Development of shale resources is a game changer and is responsible for:

- Supporting 600,000 jobs in 2010;
- Contributing more than \$76 billion to U.S. gross domestic product (GDP) in 2010; and
- Contributing \$18.6 billion in federal, state and local government tax and federal royalty revenues in 2010.³⁰

With appropriate policies, including expanded access, shale development could support more than 1.6 million jobs by 2035; could triple contributions to U.S. GDP to \$231 billion in 2035; and could more than triple government tax and royalty revenues to \$57 billion by 2035—generating more than \$933 billion in federal, state, and local tax and royalty revenues over the next 25 years on a cumulative basis.³¹

Renewable energy sources are an important part of America’s future energy mix, and further industry developments and new technologies to advance energy efficiency will also play a critical role in maximizing future resources.

But it is also evident that for at least the next 50 years, and possibly much longer, a majority of America’s energy supply will come from fossil fuels. The U.S. oil and natural gas industry is developing alternative technologies that will play an increasingly important role in our energy future even as it continues supplying the oil and natural gas that will be our nation’s primary energy source for decades to come.³²

What Policymakers Can Do

API and its member companies are committed to working with policymakers to pursue a thoughtful, comprehensive energy agenda—one that promotes American job creation, fosters economic growth, provides important revenues to the government, increases U.S. energy security, and ensures safe, reliable, affordable energy for the future.

We encourage policymakers to:

1. Increase Access to Oil and Natural Gas Resources

- Open federal areas that are currently off-limits to exploration and development, including:
 - Eastern Gulf of Mexico;
 - Alaska offshore;
 - Atlantic Outer Continental Shelf;
 - Pacific Outer Continental Shelf;
 - Alaska National Wildlife Refuge – 1002 Area;
 - National Petroleum Reserve Alaska; and
 - Portions of the Rocky Mountains.
- Lift the drilling moratorium in New York.

2. Ensure Common Sense Regulations

- Ensure that the environmental regulation of natural gas development in shale natural gas and oil plays is not duplicative or unduly burdensome—and that state-level regulation is relied upon for its flexibility to deal with unique local issues.
- Ensure that the EPA regulates within its authority and bases its regulatory efforts on sound science, seeking stakeholder input, credibly considering the costs and benefits.
- Prevent the regulation of GHG emissions through Clean Air Act programs that were not intended by Congress to address climate change.
- Align the Renewable Fuels Standard with the existing U.S. motor vehicle fleet's capacity to safely use biofuels and the biofuel industry's ability to produce them.

3. Improve and Accelerate the Leasing and Permitting Process

- Ensure that permitting levels allow the industry to develop all offshore and onshore resources in a timely manner.
- Increase the rate of permitting offshore in the Gulf of Mexico to provide the certainty to attract investment, replenish leasing inventories, and ensure that companies can build new rigs and keep them working in the Gulf so that it can continue to serve as a key source of U.S. production.

- Ensure that the vast, multiple-use acreage managed by the BLM is available for leasing.
- Ensure that BLM completes project level environmental analysis in a timely manner, rather than the multi-year delays currently experienced by some onshore projects.

4. Approve Pipeline Infrastructure for Canadian Oil Sands

- Approve the Keystone XL pipeline expansion and future additional pipeline infrastructure.
- Allow Gulf refineries to access Canadian oil markets to retain U.S. refinery jobs.

5. Avoid Punitive New Taxes

- Maintain standard business cost-recovery measures for the oil and natural gas industry.

If these positive energy policies are followed, U.S. oil and natural gas production could generate more than 1.4 million new jobs, \$800 billion in additional cumulative government revenue, and make 10 million barrels worth of added daily oil and natural gas available by 2030—all while making America more energy secure by providing 100 percent of U.S. liquid fuel needs from North American sources within 15 years.

There has been much discussion in Washington about how to address persistently high unemployment and increase revenues to the federal government, while still leading our country to higher economic growth. The oil and natural gas industry is prepared to do all three, and more—by providing the secure sources of affordable and reliable energy that protects our national security.

We will continue to encourage the president, Congress and regulatory agencies to choose the path that can lead to those positive outcomes and put the United States on the right energy and economic track. This path means increasing access to America's domestic resources so we can create jobs, raise government revenues, and produce even more of the energy we use right here at home. The other path leads to negative outcomes due to increasing taxes—by removing standard business deductions, not just for the U.S. oil and natural gas industry but for specific companies within the industry—and imposing unnecessary and duplicative regulations and policies that restrain the development of our energy resources.

There is a choice when it comes to the policies that will help shape America's energy future—two paths that we can take. One path leads to more jobs, higher government revenues and greater U.S. energy security, which can be achieved by increasing oil and natural gas development right here at home. The other path would put jobs, revenues and our energy security at risk.

For the industry, our nation's economy and the American people, the choice seems clear.

It's a choice we're ready to make.

Sources

- 1 Considine, Watson and Blumsack, "The Pennsylvania Marcellus Natural Gas Industry: Status, Economic Impacts and Future Potential," Pennsylvania State University College of Earth and Mineral Sciences Department of Energy and Engineering, July 20, 2011. Available at: <http://marcelluscoalition.org/wp-content/uploads/2011/07/Final-2011-PA-Marcellus-Economic-Impacts.pdf>.
- 2 Considine, Timothy J., "The Economic Impacts of the Marcellus Shale: Implications for New York, Pennsylvania, and West Virginia," Natural Resources Economics, Inc., July 14, 2010. Available at: <http://www.api.org/policy/exploration/hydraulicfracturing/upload/API%20Economic%20Impacts%20Marcellus%20Shale.pdf>.
- 3 Kleinzhenz & Associates, "Ohio's Natural Gas and Crude Oil Exploration and Production Industry and the Emerging Utica Gas Formation Economic Impact Study," September 2011. Available at: <http://www.oogep.org/downloads/file/Economic%20Impact%20Study/Ohio%20Natural%20Gas%20and%20Crude%20Oil%20Industry%20Economic%20Impact%20Study%20September%202011.pdf>.
- 4 Canadian Energy Research Institute, "Economic Impacts of Staged Development of Oil Sands Projects in Alberta (2010 – 2035)," June 2011. Available at: http://www.api.org/aboutoilgas/oilsands/upload/Economic_Impacts_of_Staged_Development.pdf.
- 5 Wood Mackenzie, "U.S. Supply Forecast and Potential Jobs and Economic Impacts (2012 – 2030)," September 7, 2011. Available at: http://www.api.org/Newsroom/upload/API-US_Supply_Economic_Forecast.pdf.
- 6 PricewaterhouseCoopers, "The Economic Impacts of the Oil and Natural Gas Industry on the U.S. Economy in 2009: Employment, Labor Income, and Value Added," May 2011. Available at: <http://www.scribd.com/doc/54535552/The-Economic-Impacts-of-the-Oil-and-Natural-Gas-Industry-on-the-U-S-Economy-in-2009>.
- 7 API calculation of average amounts from 2005 through 2009, collected from EIA and DOI data. Available at: <http://www.eia.gov/finance/performanceprofiles> and <http://www.onrr.gov/ONRRWebStats/Home.aspx>.
- 8 PricewaterhouseCoopers, "The Economic Impacts of the Oil and Natural Gas Industry on the U.S. Economy in 2009: Employment, Labor Income, and Value Added," May 2011. Available at: <http://www.scribd.com/doc/54535552/The-Economic-Impacts-of-the-Oil-and-Natural-Gas-Industry-on-the-U-S-Economy-in-2009>.
- 9 Wood Mackenzie, "U.S. Supply Forecast and Potential Jobs and Economic Impacts (2012 – 2030)," September 7, 2011. Available at: http://www.api.org/Newsroom/upload/API-US_Supply_Economic_Forecast.pdf.
- 10 Ibid.
- 11 API calculations based on EIA data and Wood Mackenzie, "U.S. Supply Forecast and Potential Jobs and Economic Impacts (2012 – 2030)," September 7, 2011.
- 12 Congressional Research Service, "U.S. Fossil Fuel Resources: Terminology, Reporting, and Summary" (R40872), November 30, 2010, Table 5 Total Fossil Fuel Reserves of Selected Nations and Table 6 Reserves of Fossil Fuels Plus Technically Recoverable Undiscovered Oil and Natural Gas. Available at: http://epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=04212e22-c1b3-41f2-b0ba-0da5eaead952.
- 13 Bureau of Ocean Energy Management, Regulation and Enforcement [Formerly the Minerals Management Service, Offshore Minerals Management Program], "Report to Congress: Comprehensive Inventory of U.S. OCS Oil and Natural Gas Resources Energy Policy Act of 2005 – Section 357," February 2006, Table 1(a): Total Endowment of Technically Recoverable Oil and Gas on the OCS, 2006. Available at: <http://www.boemre.gov/revalldiv/PDFs/InventoryRTC.pdf>.
- 14 Bureau of Land Management, "Inventory of Onshore Federal Oil and Natural Gas Resources and Restrictions to their Development," May 21, 2008. Available at: http://www.blm.gov/wo/st/en/prog/energy/oil_and_gas/EPCA_III.html.
- 15 Departments of the Interior, Agriculture, and Energy, "Inventory of Onshore Federal Oil and Natural Gas Resources and Restrictions to their Development," 2008. Available here: http://www.blm.gov/pgdata/etc/medialib/blm/wo/MINERALS__REALTY__AND_RESOURCE_PROTECTION_/energy/EPCA_Text_PDF.Par.18155.File.dat/Executive%20Summary%20text.pdf.
- 16 Executive Order No. 13,563, "Improving Regulation and Regulatory Review," 76 Fed. Reg. 3821, January 18, 2011; "President's Memorandum on Regulatory Flexibility, Small Business, and Job Creation," 76 Fed. Reg. 3827, January 18, 2011.
- 17 Quest Offshore, "The State of the Offshore U.S. Oil and Gas Industry: An in-depth study of the outlook of the industry investment flows offshore," December 2011. Available at: <http://bit.ly/rVZSct>.
- 18 Ibid.
- 19 Department of State, "Keystone XL Pipeline Project," 2011. Available at: <http://www.keystonepipeline-xl.state.gov/clientsite/keystonexl.nsf?Open>.
- 20 Energy Information Administration, "Annual Energy Outlook 2011," April 2011. Available at: <http://www.eia.gov/forecasts/aeo/>.
- 21 Burkhard, James, "U.S. Energy Security: The Significance of Canada's Oil Sands," Testimony before the U.S. House of Representatives Committee on Energy and Commerce, Subcommittee on Energy and Power, May 23, 2011. Available at: <http://republicans.energycommerce.house.gov/Media/file/Hearings/Energy/052311/Burkhard.pdf>.
- 22 National Petroleum Council, "Prudent Development: Realizing the Potential of North America's Abundant Natural Gas and Oil Resources," September 15, 2011. Available at: http://www.npc.org/Prudent_Development.html.
- 23 Texas Society of Certified Public Accountants, "Analysis of Legislative Proposals to Repeal Certain Tax Treatments of Domestic Oil and Gas Exploration and Development," March 2011. Available at: <http://www.tscpa.org/Content/Files/pdf/About%20TSCPA/TaskForces/OGAnalysisLegProposals0311.pdf>.
- 24 T2 & Associates, "Key Investments in Greenhouse Gas Mitigation Technologies from 2000 through 2010 by Energy Firms, Other Industry and the Federal Government," October 2011. Available at: http://www.api.org/ehs/climate/new/upload/2011_api_ghg_investment.pdf.
- 25 Ibid.
- 26 Ibid.
- 27 API, "Environmental Expenditures by the U.S. Oil and Natural Gas Industry (1990-2010)," December 2011. Available at: <http://www.api.org/statistics/accessapi/surveys/upload/EnvironmentalExpenditures.pdf>.
- 28 T2 & Associates, "Key Investments in Greenhouse Gas Mitigation Technologies from 2000 through 2010 by Energy Firms, Other Industry and the Federal Government," October 2011. Available at: http://www.api.org/ehs/climate/new/upload/2011_api_ghg_investment.pdf.
- 29 Energy Information Administration, "Annual Energy Outlook 2011," April 2011. Available at: <http://www.eia.gov/forecasts/aeo/>.
- 30 IHS Global Insight, "The Economic and Employment Contributions of Shale Gas in the United States," December 2011. Available at: http://www.energyindepth.org/wp-content/uploads/2011/12/Shale-Gas-Economic-Impact-Dec-2011_EMB1.pdf.
- 31 Ibid.
- 32 Isakower, Kyle, "Opening Statement as Prepared for Delivery: Press briefing teleconference on industry investments in GHG mitigation technologies," API, October 20, 2011. Available at: http://www.api.org/Newsroom/testimony/upload/isakower_ghg_mitigation_press_remarks.pdf.