SCIENCE & POLICY BRIEF

Needed Policy Reforms Not Hindering Natural Gas Production:

It's the economy

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KEY POINTS

1. The natural gas industry has tried to blame Obama Administration policies for the recent downturn in drilling activity and investments in new production on public lands, but this trend began in 2008, well before the Obama Administration took office and instituted reforms to protect wildlife and other public values.
2. The primary reason for the downturn in drilling activity is a significant drop in natural gas demand and new discoveries of natural gas deposits within the U.S that have increased supply. These have together caused a decline in the price of natural gas, prompting industry to decrease investments in new projects. Market forces – not the Obama Administration's public land policies – are the primary determinant of industry behavior.
3. Beginning in 2008, in anticipation of higher natural gas prices, natural gas production companies have curtailed drilling activities and even "shut-in" producing wells.
4. The oil and gas industry has a huge inventory of unused federal leases under its control. More than 45 million acres of public lands are under lease to oil and gas companies, and nearly two-thirds of this acreage – over 32 million acres – is not in production. Allegations that Obama Administration public land management policies have left the industry with inadequate access to natural gas resources have no basis in fact.

THE CLAIM: NEW FEDERAL LAND POLICIES ARE HINDERING NATURAL GAS ACTIVITIES ON FEDERAL PUBLIC LANDS

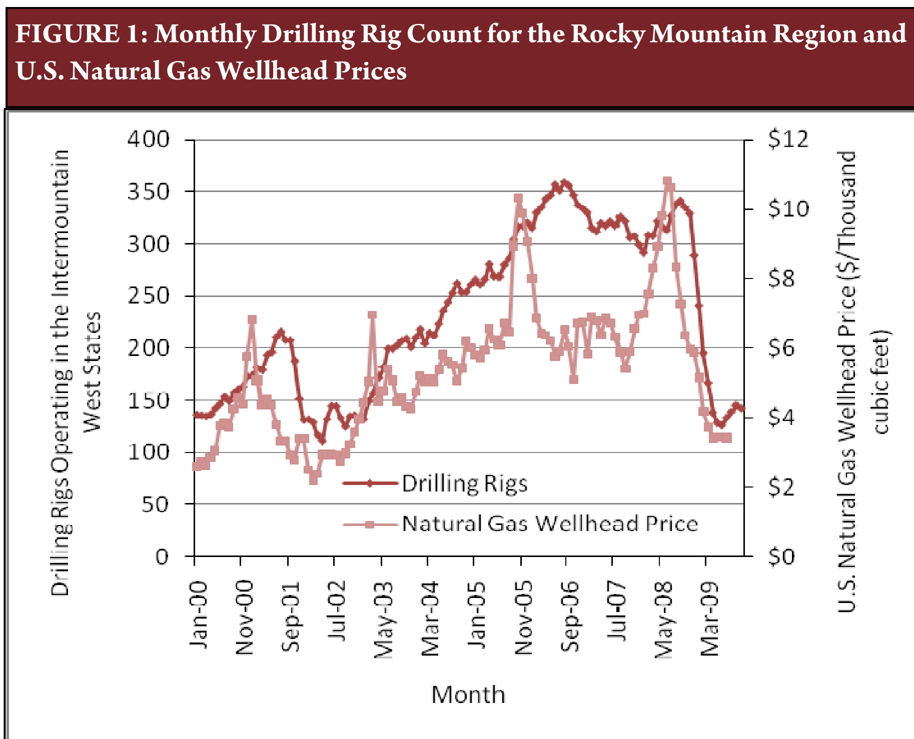
In a position paper released in November 2009, the Independent Petroleum Association of Mountain States (IPAMS) argues that the Obama Administration's oil and natural gas policies "have severely impacted project environmental analyses, permitting, and lease issuance in some states" that result in "less American energy, less economic activity and fewer jobs for Intermountain West states."[1] The paper argues that the Obama Administration's energy policies are unduly restricting drilling on federal lands, thus threatening jobs and energy security.

FACT #1: MARKET FORCES ARE DOING THEIR JOB

Though natural gas drilling throughout the U.S. dropped significantly in 2008 (during the Bush Administration), observations by industry experts within and outside of the gas industry tell a very different story on why investments in natural gas exploration and development projects have dropped off, and belie the industry's public claims faulting Obama Administration oil and gas policies. Industry experts point to one obvious factor: plummeting natural gas prices. As this paper demonstrates, the decrease in natural gas development activity in the past year is wholly unrelated to the availability of federal land for development, or to regulatory frameworks that apply to federal lands. As in most economic endeavors, price is the relevant factor in drilling activities.

The natural gas industry in the U.S. is a competitive North American market with producers of different scale, and unlike the price of oil which is controlled by the OPEC cartel, the price of natural gas in the U.S. closely correlates with domestic supply and demand. For the past decade the number of drilling rigs in the Intermountain West[i] and the price of natural gas have fluctuated in a synchronized manner (Figure 1). The price of natural gas went into a free fall during mid 2008, from more than $10 per thousand cubic feet (Mcf) to roughly $3/Mcf by mid-2009 and drilling activity fell concurrently.

FIGURE 1: Monthly Drilling Rig Count for the Rocky Mountain Region and U.S. Natural Gas Wellhead Prices



Note: throughout the period shown the total rig count for the U.S. ranged from 750 to 2000.

Source: rig counts: Baker-Hughes Rig Counts (http://investor.shareholder.com/bhi/); natural gas prices: U.S. Department of Energy, Energy Information Administration (http://www.eia.doe.gov/).

[i] Colorado, Montana, New Mexico, Utah, and Wyoming

The "law of supply and demand" is a well-established basic principle of economics and applies to the natural gas industry's current situation. When supply exceeds demand, prices drop, and as long as prices remain low, there is no economic reason to bring more wells or more land into production. A primary factor in the current excess of supply over demand has been the discoveries of new developable "shale gas" resources. Chris Armbruster, an analyst at Al Frank Asset Management says, "There seems to be a new shale discovery every couple of months. It's amazing how many drillable places there are in the U.S."[2] On the demand side, according to an August 2009 article in Forbes, the recession, a cool summer, a calm hurricane season in the Gulf of Mexico where offshore rigs are located, and a full storage of natural gas in Canada that could potentially flow south are among the reasons demand has remained slack.[3] Combine high supply and low demand, and low prices are the inexorable result. Cutbacks in production are the simple, rational and predictable reaction of gas producers to low market prices.

Within the industry, experts argue that the only way for natural gas prices to rebound is to reduce production. Art Gelber, the president of Gelber and Associates, a natural gas consulting firm in Houston, points out: "The battle between pricing signals and the propensity to want to drill in a low-price environment will keep the exploitation of these shale gas reserves at a relative low rate. It's only when prices are up that drillers will drill more aggressively."[4] Fortune magazine also quotes Rich Howard, the manager of the Prospector Capital Appreciation fund, in saying that, "Ultimately, the cutback ought to reduce production enough to hamper supply, which would boost prices."[5] This position is echoed by economist Kenneth Medlock, an energy fellow at the Baker Institute at Rice University, who argues that, "Not until you start shutting in wells that are part of a long-term drilling program will you really see significant reductions in supply."[6] Both business consultants and economists agree that the reason behind the drop in natural gas drilling is the low price, and not, as the industry trade association officials tell the public, the Obama Administration's federal lands policies.

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Even representatives of the industry trade associations themselves have admitted the influence that low prices have on development activities. Hazem Arafa, of American Petroleum Institute (API), commented in July 2009: "The U.S. drilling decline that began last quarter in connection with the current downturn in economic activity has continued in earnest in the second quarter of 2009 as companies proceed with caution in an uncertain year."[7]

FACT #2: INDUSTRY'S STRATEGY IS TO INVEST LESS IN NEW DRILLING ACTIVITIES WHEN PRICES ARE LOWER

A review of recent annual reports from major independent natural gas producers reveals one key reason for cutbacks in development: the low price of natural gas.

- Questar, a natural gas company with major operations on western public lands, explained to their investors in their 2008 annual report: "In 2009 we must manage the company to earn returns on capital above our cost of capital in a low-price environment […] We've cut our 2009 capital budget to $1.3 billion—about half of our 2008 capex. We'll drill fewer wells — Questar E&P will still grow production, but not at the pace of recent years."[8] Questar's Chairman Keith O. Rattie declared to his investors during their 3rd quarter earnings conference call: "Please note that due to low natural gas prices again in the third quarter, we deliberately shut-in or choked back production from some existing wells. We also deferred some completions on new wells."[9]

- Ultra Petroleum, another company with significant operations on public lands, carried a similar message: "We are pursuing a conservative and disciplined capital program that is in keeping with our long-term strategy of balancing growth and profitability […] By not over-leveraging the company's balance sheet, this affords us the ability to weather a low commodity price environment that we anticipate could last throughout 2009."[10] Ultra's management philosophy – reductions in investments in exploration and development until prices rise – is evident throughout the industry.
- Chesapeake Energy, a major independent production company, expressed similar reasons for tuning down drilling activity: "Because of lower natural gas prices in the fourth quarter of 2008 and first quarter of 2009, we have substantially reduced our drilling activities in the Barnett [a gas play located in northern Texas] from 43 rigs in August 2008 to around 20 today. We intend to maintain this lower pace of drilling […]."[11]
- Devon Energy's 2008 annual report puts the situation in particularly cogent terms: "*The industry ramps up activity when prices rise and reduces activity when prices fall. Devon's sharp reduction in exploration and production capital spending in 2009 reflects our response to the current low-price environment and concern about the global economy.*"[12]

The above statements from the natural gas industry indicate that the decline in price is *the* leading cause behind the decline in natural gas development activities, whether their operations are on federal or non-federal lands. To attribute their production cutbacks and subsequent job losses to the Obama Administration's policies on drilling on federal lands is a baseless argument that contradicts the companies' own internal strategy documents.

The current low price of natural gas makes development of natural gas less economically viable, regardless of how much federal land is available, or what federal policies may apply to them.

Contradicting their own claims to investors, the industry's trade organizations continue to assert publicly that their problems are due to Obama Administration policies and actions taken by Department of the Interior Secretary Ken Salazar to reform the federal government's oil and gas leasing program. The Independent Petroleum Association of the Mountain States (IPAMS), for example, asserts that due to restrictions on the availability of federal lands for gas development, "independent producers in the Intermountain West are hindered in their efforts to find and produce American natural gas and oil, create jobs, and provide economic stimulus to rural communities."[13] And the American Petroleum Institute's president, Jack Gerard,
recently stated that, "Interior Secretary Salazar has taken steps to further delay and limit American energy resources for all Americans."[14] These statements ignore the facts freely shared within the industry– that the current low price of natural gas makes development of natural gas less economically viable, regardless of how much federal land is available, or what federal policies may apply to them. Thomas F. Darden, chief executive of Quicksilver Resources, a major natural gas producer, says: "Prices today are below our costs to produce, so in our view this is not a sustainable scenario."[15]

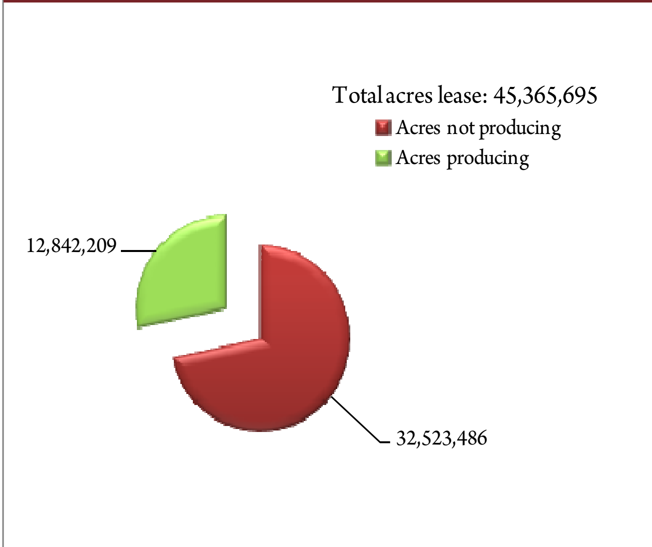
Again, what most threatens natural gas production jobs is the industry's response to the current low price of natural gas. When natural gas price dips below production costs, "larger companies may soon buy independents at a bargain price."[16] Rodney L. Waller, a senior vice president at Range Resources, warns: "Companies' viability is being questioned. If you have sustained price reductions, you will see consolidation and layoffs."

FACT #3: MOST PUBLIC LAND UNDER LEASE IS NOT BEING UTILIZED

Industry lobbying groups have loudly protested the alleged shrinking availability of federal lands opened to drilling, but data from the BLM reveal that the oil and gas industry has vast tracts of federal land under lease that are not in production. Some in industry confirm this surplus of drilling opportunities. As Ben Smith, president of First Enercast Financial, an information vendor serving energy markets, observes in the context of the industry's overall situation: "There is a tremendous backlog of spare production capacity sitting idle and waiting for higher prices."[17]

Of the 45,365,695 federal onshore acres under lease in 2009, only 12,842,209 acres, or less than 30% of the total leased lands, were in production (Figure 2). In other words, the industry has tens of millions of acres of leased federal lands --an area the size of the State of Wisconsin – that it has not developed. Most of these surplus leased acres are in the Inter-mountain West states (Table 1).

FIGURE 2. BLM Program: Most Leased Lands are Undeveloped



Source: Bureau of Land Management, Public Land Statistics 2009. [available from http://www.blm.gov/wo/st/en/info/newsroom/Energy_Facts_07/statistics.html]

TABLE 1: Intermountain States leased lands for natural gas production in 2009

State	Number of acres leased as of Fiscal Year 2009	Number of producing acres as of Fiscal Year 2009	Percentage of leased land in production 2009
Colorado	4,920,123	1,522,230	30.94%
Montana	3,975,577	769,515	19.36%
New Mexico	5,468,058	4,347,437	79.51%
Utah	4,995,479	1,092,640	21.87%
Wyoming	12,732,957	3,794,355	29.80%
Total	32,092,194	11,526,177	
Average:			36.30%

Source: Bureau of Land Management, Public Land Statistics 2009. [available from http://www.blm.gov/wo/st/en/info/newsroom/Energy_Facts_07/statistics.html]

CONCLUSION: MARKET FORCES – NOT FEDERAL LAND POLICIES – ARE RESPONSIBLE FOR NATURAL GAS INDUSTRY INVESTMENT DECISIONS

The Obama Administration is implementing reasonable policies to protect the resources that belong to all Americans: clean air and water, wildlife habitat, recreation opportunities and wild unspoiled lands. The oil and gas industry, however, has tried to convince the public and Congress that these policies are suppressing natural gas development on federal lands. The facts, however, are as the industry's own investor literature clearly states, that industry has, quite rationally, decreased investments in new projects and production in response to current low prices.

Ironically, as natural gas prices climbed to record levels during the boom of the early part of this century, the industry insisted that it needed greater access to public lands to bring the price down for consumers. The industry got that greater access, as evidenced by the surplus of public lands available for oil and gas production, but that excess land is clearly not now needed to meet market demand. Now that the prices have come down, oil and gas firms are telling investors that they are actively reducing production until prices go back up.

Even when demand and supply are in rough balance – what economists call market equilibrium – the federal government has a legitimate and essential role in ensuring that the values of federal land that are not reflected in market prices are recognized and considered. The Obama Administration's public land policies are on track to help restore a balance between conservation and development.

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ABOUT THE WILDERNESS SOCIETY

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