

29 June 2017

**Testimony of Professor Mark Squillace, University of Colorado Law School
Subcommittee on Energy and Mineral Resources, House Natural Resources Committee
Hearing on Oil and Gas Production on Public Lands, 115th Cong., 1st Sess. 2017**

The Honorable Paul Gosar
Chair, Subcommittee on Energy and Mineral Resources, House Natural Resources Committee
1324 Longworth House Office Building
Washington, D.C. 20515-6201

Dear Chairman Gosar:

Thank you for the opportunity to appear before the House Subcommittee on Energy and Mineral Resources to offer my views on oil and gas development on our public lands. I am a professor of law at the University of Colorado Law School. I teach and work primarily in the fields of environmental, natural resources, and water law and I have written extensively on all of these subjects. My professional experience with public lands issues also runs deep. As a law student at the University of Utah, I worked in the Utah State Office of the BLM as a land law examiner – a position that allowed me to review all manner of public lands activities and gain first-hand knowledge about the operation of our public land laws. Following law school, and before entering law teaching, I was hired into the Solicitor's Honor's Program at the U.S. Department of the Interior where I gained significant additional experience on public lands and mineral law issues. I took a leave from teaching and returned to the Solicitor's Office in the year 2000 as a Special Assistant to the Solicitor where I worked on a wide range of special projects involving public lands. All of this experience both inside and outside of government has helped to inform my understanding about how best to manage oil and gas development on our public lands.

Before sharing my views on this subject, I wish to make an observation about congressional testimony. Over the last decade, I have had the distinct honor and privilege of appearing before House and Senate Committees to lend my expertise on many occasions and on a wide range of issues. Increasingly, however, the hearings at which I have appeared have seemed largely unproductive. They often devolve into efforts to score political points at the expense of learning about and trying to solve the complex but important problems that are the subject of the hearings. Members often choose to engage only with those with whom they agree or think they agree, and a process that is supposed to shed light on a problem, often serves instead to harden ideological positions in a way that is unlikely to lead to the creative policy solutions that are often available if we allow ourselves to see them.

I appear today with an open mind and a willingness to learn from you and from the other witnesses. But we cannot learn if we do not engage with each other in a meaningful way. In addressing the hard questions before this Committee, we must begin with the facts as best we can

know them. Information will always be imperfect, both because of scientific uncertainty and the time lag between the collection of information and the decision point. But we must accept the findings of those who by training and expertise provide us with the information essential to good government decisionmaking. Once we assemble the best information, policy will still play an important role. But good policy is stymied if we cannot even agree on the basic facts that inform it.

My substantive remarks begin with a review of basic data about the federal onshore oil and gas leasing program. This is followed by a detailed look at other factors that help to explain this data including the economics of public land oil and gas development

Federal Oil and Gas Development and Current BLM Data

Federal onshore oil and gas development on our public lands involves a multi-stage process. It begins with land use planning whereby the BLM determines, among many other things, which lands should be made available for possible oil and gas leasing.¹ This is followed by a process for nominating tracts for leasing. Industry, the public, and the BLM itself may nominate lands that are then made available through an open, competitive auction process. Auctions are typically held by individual BLM state offices on a quarterly basis. Leases are generally awarded to the highest bidder but if no bids are received the BLM makes these lease tracts available for purchase for two years at \$2.00/acre.² Lessees usually have ten years to develop the lease before it expires but leases are automatically extended beyond the ten year primary term so long as oil and gas is being produced in paying quantities.³ Leases may also be extended for two additional years beyond the primary term where actual drilling is occurring on the site,⁴ and they may be suspended for an unlimited period of time “in the interest of conservation.”⁵ Lessees may drill on a lease site for either exploration or development purposes but they must first file and receive BLM approval for an application for a permit to drill (APD). Environmental analysis in accordance with the National Environmental Policy Act is required at most stages of this process and is particularly important at the APD approval stage because it is at that stage where the government is able to assess site specific impacts of development.

Those who support increased oil and gas leasing activities on our public lands will likely point to the fact that the total number of extant federal leases, the total number of acres leased, and the total number of new leases issued during the year have all declined in recent years.⁶ What they may

¹ Under current land use plans, more than 90% of BLM -managed minerals are open to new oil and gas leasing. <http://wilderness.org/open-business-and-not-much-else-analysis-shows-oil-and-gas-leasing-out-whack-blm-lands>.

² 30 U.S.C. § 226(b)(1)(A).

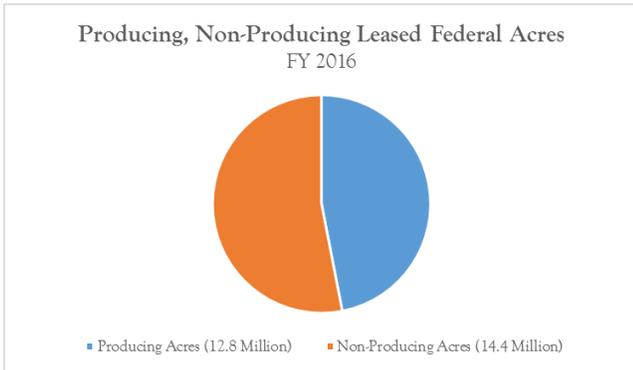
³ *Id.* at § 226(e).

⁴ *Id.*

⁵ *Id.* at § 209. During the period of suspension, the lessee does not pay rentals. See also *Copper Valley Machine Works, Inc. v. Andrus*, 653 F.2d 595 (D.C. Cir. 1981) where the court held that “conservation” was not limited to conservation of the oil and gas resources but included measures deemed necessary to protect the environment.

⁶ BLM Oil and Gas Statistics, Table 1, available at <https://www.blm.gov/programs/energy-and-minerals/oil-and-gas/oil-and-gas-statistics>. State lands leasing, like federal lands leasing, has also declined significantly over the past several years. ECONorthwest, *Oil and Gas Leasing and Permitting on State Lands: Recent Trends in the Rocky Mountain West* (Aug. 2016) available at <http://westernvaluesproject.org/wp-content/uploads/2016/09/Final-WVP-State-Lands-Report.pdf>.

not tell you, however, is that a similar trend exists for leasing of state-owned minerals in the West.⁷ Additionally, the number of *producing* leases on federal land has never been higher and, when compared to 2016 fiscal year, the amount of federal land producing oil and gas was higher in only one year out of the last 10, and only three times in the last 20 years.⁸ According to the Congressional Research Service, federal onshore oil production increased by more than 70 percent between FY 2006 and 2015.⁹



Moreover, even as production has increased a large surplus of unused oil and gas leases and permits on federal lands remains. Current federal land under production is less than half (46.9%) of the leased land.¹⁰ Put another way, more than 14 million acres of federal land currently under lease are not producing any oil or gas.¹¹ Furthermore, during the 2016 fiscal year, the industry bid on

less than one third of federal acreage offered for lease at auction.¹² As a result, the BLM leased only 577,000 acres for oil and gas development during that year, which is substantially less than in prior years.¹³ In light of slack demand this reduction in leased acreage is not at all surprising and it is actually remarkable that during this period the number of *producing* leases on federal lands has grown to 23,926 – its highest level ever.¹⁴



⁷ See ECONorthwest, *supra* note 6.

⁸ See BLM Oil and Gas Statistics, Table 1, *supra* note 6.

⁹ Congressional Research Service, “U.S. Crude Oil and Natural Gas Production in Federal and Nonfederal Areas” (June 22, 2016) at p. 3, Table 1 available at <https://fas.org/sgp/crs/misc/R42432.pdf>

¹⁰ See BLM Oil and Gas Statistics, Table 1, *supra* note 6.

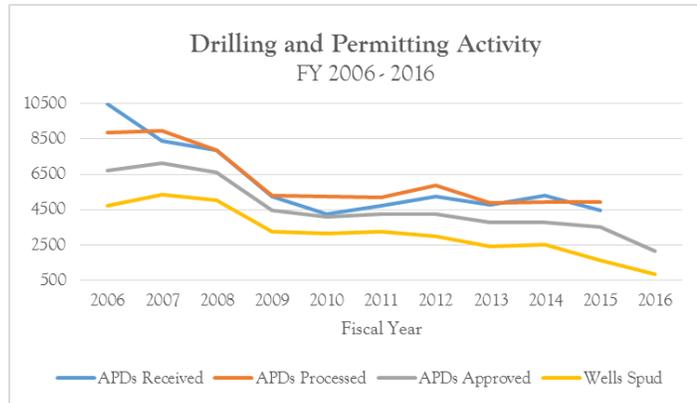
¹¹ *Id.*

¹² Data available upon request.

¹³ See BLM Oil and Gas Statistics, Table 1, *supra* note 6.

¹⁴ *Id.*

As for approved drilling permits, at last count in September of 2015, the BLM had approved more than 7,500 APDs that were not being used.¹⁵ This is an all-time record.¹⁶ As the number of unused APDs grew it should surprise no one then that in 2016 only 2,184 new drilling permits were issued by the BLM. This is certainly well below the record numbers of approvals from 2007 and 2008 when the BLM approved 7,124 and 6,617 permit respectively, but that was a time when the industry was applying for far more permits.¹⁷ But these numbers are consistent with the growth in unused drilling permits because industry commenced drilling or “spud” only 847 new wells in 2016, which is less than 39% of the number the BLM approved.¹⁸ By contrast in 2007 and 2008, industry spud 75% and 76% of the approved drilling permits respectively.¹⁹ Ramping up the issuance of drilling permit during a time when so many approved permits are not being used would thus seem to be irresponsible.

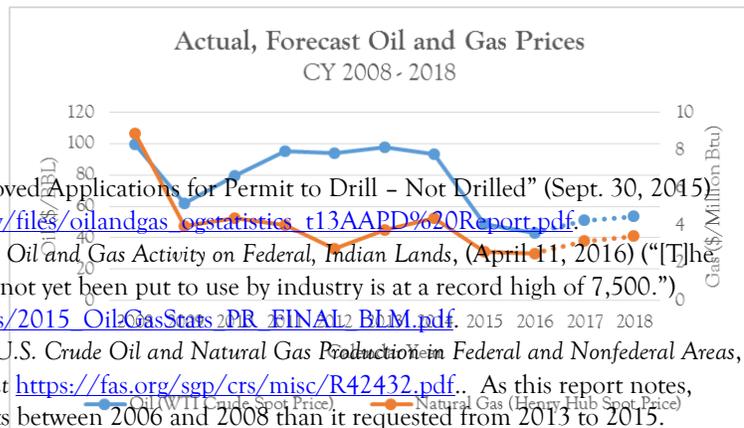


The Policy Choices Facing the Administration

A key question before this Committee is whether it should support a policy to accelerate lease issuance and drilling permit approvals in the face of the existing glut. Leasing and permitting activities require the BLM to expend considerable time, money, and resources. Given the surfeit of existing leases and permits that are going unused due to low demand the prudent course, and the only responsible course, is to limit leasing and permitting until there is sufficient demand to ensure higher bonus bids and a fair return to the public on our valuable oil and gas resources. Notwithstanding these facts, the Administration’s proposed Interior budget would increase funding for energy and minerals development while starving other Interior programs such as our national parks and other public recreation lands where demand is soaring.²⁰

The Economics of Oil and Gas Development

So what explains the lackluster demand for federal oil and gas



¹⁵ BLM Oil and Gas Statistics, Table 13 “Approved Applications for Permit to Drill - Not Drilled” (Sept. 30, 2015) available at https://www.blm.gov/sites/blm.gov/files/oilandgas_logstatistics_t13AAPD%20Report.pdf.

¹⁶ BLM News Release, *BLM Releases Statistics on Oil and Gas Activity on Federal, Indian Lands*, (April 11, 2016) (“[T]he number of approved drilling permits that have not yet been put to use by industry is at a record high of 7,500.”) available at https://www.blm.gov/or/news/files/2015_OilGasStats_PR_FINAL_BLM.pdf.

¹⁷ *Id.* See also Congressional Research Service, *U.S. Crude Oil and Natural Gas Production in Federal and Nonfederal Areas*, R42432 (June 22, 2016), at pp. 9-10, available at <https://fas.org/sgp/crs/misc/R42432.pdf>. As this report notes, industry requested 12,200 more drilling permits between 2006 and 2008 than it requested from 2013 to 2015.

¹⁸ *Id.*

¹⁹ *Id.*

²⁰ See “President’s Budget FY 2018 - Appendix - Detailed Budget Estimates by Agency - Department of the Interior” available at <https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/budget/fy2018/int.pdf>.

resources? Well, much of it can be traced to low market prices. The Energy Information Administration's daily report on the price of West Texas Intermediate light crude was \$42.46/barrel this past Monday, June 26, 2017.²¹ While the price dipped to below \$30/barrel in the early part of last year, it has hovered around or below the \$50/barrel mark for most of the past year.²² Natural gas prices have also remained low, ranging from \$1.81 in the Mid-Atlantic States to 3.12 in northern California.²³ At these prices, oil and gas companies can still make a decent profit, but in many cases, enhancing production at existing wells may be more attractive than developing new wells or stockpiling more leases.

Commodity prices for oil and gas are notoriously difficult to predict, but significant increases in price seem unlikely, and a decrease in price is perhaps just as likely as an increase. The U.S. Energy Information Administration currently forecasts that Brent crude oil prices will increase from an average of \$53/barrel to \$56/barrel during the 2017-2018 fiscal year. The Henry Hub natural gas spot price is projected to increase from an average of \$3.16/MMBtu in 2017 to \$3.41/MMBtu.²⁴ These modest increases are unlikely to have a significant impact on the demand and use of federal oil and gas leases and permits. Devoting more money and resources to public lands oil and gas development simply cannot change the global market forces that are the primary factor behind whether companies choose to develop.

The Implications of Slack Demand for the Federal Oil and Gas Leasing Program

As described above, market forces suggest slack demand for federal oil and gas. Nonetheless, the government can certainly sell some additional leases if it is prepared to accept low bids. But pushing oil and gas leases at a time when the markets are down will inevitably result in far lower revenues for both the State and Federal coffers. Oil and gas revenues are generated in three ways – through auction bids, royalty payments on production, and annual rental fees.²⁵ When oil and gas prices are low, bids on federal leases are also low. Those that are sold are often bought by speculators who pay little up front for the lease in the hope that the market price will rise and make the lease more valuable. But if the market does turn around it is the speculator who profits rather than taxpayers. Furthermore, nearly 90% of government revenue from federal oil and gas development comes from royalty payments²⁶ and the government receives no royalties when low market prices disincentivize production. And as with low bonus bids, very little revenue is generated from the modest rental payments charged under the current federal policy.²⁷ From a strictly revenue generating perspective the government would be wise to wait for commodity prices to rise again before even thinking about increasing the level of federal oil and gas leasing. To the

²¹ U.S. EIA, *Today in Energy*, June 26, 2017, available at <https://www.eia.gov/todayinenergy/prices.php>.

²² *Id.*

²³ U.S. EIA, "Henry Hub Natural Gas Spot Price" available at <https://www.eia.gov/dnav/ng/hist/rngwhhdd.htm>.

²⁴ U.S. EIA, "Short Term Energy Outlook" (June 6, 2017) at Table 2 (Energy Prices) available at <https://www.eia.gov/outlooks/steo/tables/pdf/2tab.pdf>

²⁵ See Government Accountability Office, *Raising Federal Rates Could Decrease Production on Federal Lands but Increase Federal Revenue*, at pp. 10-11 (June, 2017), available at <https://www.gao.gov/products/GAO-17-540>.

²⁶ See Congressional Budget Office, *Options for Increasing Federal Income from Crude Oil and Natural Gas on Federal Lands*, at p. 2, (April, 2016).

²⁷ *Id.* at p. 11, Figure 1.

extent that leasing is allowed to proceed the government should set higher minimum bonus bids and higher annual rental fees as a means to increase revenues and discourage speculation.

The Need to Reform Federal Royalty Policies

Federal royalty rates, which were set in the 1920s, are currently well below market rates and the government would realize significant additional revenue if it increased those rates. Earlier this month, the General Accounting Office issued a report that found that increasing royalty rates for oil and gas would increase federal revenue with only minimal impacts on production.²⁸ The Interior Department itself had recognized this problem by issuing final rules in 2016 that were designed to bring about much needed reforms to the federal mineral royalty program.²⁹ Unfortunately those rules were stayed by the Trump Administration, which has further announced its intention to repeal these rules entirely.³⁰ That would be a serious mistake and the Administration should reconsider its position before taking final action.

While I understand that this hearing is focused on the federal oil and gas leasing program, the Committee should not overlook the parallel need to reform federal royalty policies for coal. For a host of reasons including the dire economic circumstances of the domestic coal industry, the arguments for reforming the entire coal leasing program including royalty policies are even more compelling than they are for oil and gas.³¹ One simple but important step that would allow the government to assess the options for reforming the coal program would be to resume preparation of the programmatic EIS on coal that was begun at the end of the Obama Administration. This step, which would help both the government and the public to better understand their options for coal reform, was inexplicably abandoned by the Administration in March of this year.³²

Federal Oil and Gas Leasing and Multiple Use

In addition to negative market forces, oil and gas production on federal lands also faces multiple use constraints that govern federal land management.³³ Aerial photographs from certain parts of the country, such as the Permian Basin in west Texas and the Bakken fields of North Dakota, which are readily available on the internet, have seen industrial scale oil and gas development, with little advance planning. Development at this scale and intensity is antithetical to the notion of multiple use. While intensive oil and gas development has sometimes occurred on federal public lands, such as in the Jonah field in Wyoming, and near Farmington, New Mexico, such development often generates significant opposition from the public beyond what might be expected with private land development because it imposes significant, long-term costs on our wildlife, water, and recreation resources that might otherwise be accessible to the public for

²⁸ *Id.* at 16-24.

²⁹ 81 Fed. Reg. 43338 (2016).

³⁰ The Office of Natural Resources Revenue postponed implementation of the 2017 valuation reform rule on February 27, 2017. 82 Fed. Reg. 11823 (2017). The rule had taken effect on January 1, 2017. On April 4, 2017, Interior further proposed to repeal these rules in their entirety. 82 Fed. Reg. 16323 (2017).

³¹ See Federal Coal Program, Programmatic Environmental Impact Statement: Scoping Report, *available at* https://eplanning.blm.gov/epl-front-office/.../CoalPEIS_RptsScoping_Vol1_508.pdf.

³² Secretarial Order 3348 (March 29, 2017).

³³ Multiple use management is required by the Federal Land Policy and Management Act (FLPMA). 43 U.S.C. § 1732(a) (2017).

activities such as hunting, fishing, and hiking. This is especially true when oil and gas development threatens our most precious national conservation lands. When the BLM proposed to lease lands near the western boundary of Zion National Park earlier this year, it received more than 40,000 public comments in opposition, including letters of opposition from Governor Herbert of Utah, county commissioners and town councils and numerous local businesses.³⁴ In total, our national parks hosted 330 million visitors in 2016, the third record-setting year in a row.³⁵ Park visitors spent an estimated \$18.4 billion in local gateway regions while visiting national parks across the country.³⁶ Our national parks form the backbone of a burgeoning outdoor recreation industry that generates hundreds of billions of dollars in consumer spending every year.³⁷ Oil and gas development puts at least some of this economic activity at risk. And even putting aside the aesthetic values and moral arguments for preserving our public lands for future generations, the significant economic values associated with the protection of our conservation lands is sustainable over the long term, without compromising the use of those lands for other purposes sometime in the future.

Geologic Factors and their Relevance to Federal Oil and Gas Development

Another important factor in explaining slack demand for federal oil and gas resources has to do with simple geology. The Congressional Budget Office, the Congressional Research Service and the Government Accountability Office have all reached the conclusion that the major shale plays in the United States are located primarily beneath state and private, and not on federal lands.³⁸ A GAO report issued just last week found that of the six major tight oil and shale gas plays in the United States, federal lands comprise 38, 15, 9, 7, 8 and 0.4 percent of land ownership within their boundaries.³⁹ Put another way, the vast majority of all six of the major oil and gas plays in the United States are on state and private lands. Increasing federal leasing and permitting activity obviously cannot change the location of oil and gas resources relative to federal lands.

Climate Change and Federal Oil and Gas Development

³⁴ DOI/BLM Memorandum, “Recommendation to Defer the St. George Oil & Gas Lease Parcels” (May 25, 2017) available at https://eplanning.blm.gov/epl-front-office/projects/nepa/69396/108022/132359/Deferral_recommend_memo_to_SO_052517.pdf.

³⁵ See National Park Service, “Visitor Use Statistics” available at <https://irma.nps.gov/Stats/>.

³⁶ See National Park Service, “Visitor Spending Effects – Economic Contributions of National Park Visitor Spending” available at <https://www.nps.gov/subjects/socialscience/vse.htm>.

³⁷ See Outdoor Industry Association, “The Outdoor Recreation Economy” (2017) available at https://outdoorindustry.org/wp-content/uploads/2017/04/OIA_RecEconomy_FINAL_Single.pdf

³⁸ See Congressional Budget Office, “Options for Increasing Federal Income From Crude Oil and Natural Gas on Federal Lands” (April 19, 2016) at p. 3 (“...shale resources are found primarily on lands owned by state governments and private landowners.”), available at https://www.cbo.gov/sites/default/files/114th-congress-2015-2016/reports/51421-oil_and_gas_options-2.pdf; Congressional Research Service, “U.S. Crude Oil and Natural Gas Production in Federal and Nonfederal Areas” (June 22, 2016) at p. 4 (“Any increase in production of natural gas on federal lands is likely to be easily outpaces by increases on nonfederal lands, particularly because shale plays are primarily situated on nonfederal lands and are located where most of the growth in production has occurred in recent years and where future growth is projected to occur.”) available at <https://fas.org/sgp/crs/misc/R42432.pdf>; GAO Report, *supra* note 24 at Figure 2, available at <https://www.gao.gov/products/GAO-17-540>.

³⁹ See GAO Report, *supra* note 24 at Figure 2.

Finally, the Committee should not ignore concerns about climate change that are raised by decisions to accelerate federal oil and gas development. To be sure, the climate-related impacts associated with oil and gas development on public lands are complex. Foregoing oil and gas development on public lands may result in some decrease in CO₂ emissions as, for example, where it incentivizes a shift toward low carbon transportation fuels such as biodiesel. On the other hand, less federal land oil and gas development might also be compensated at least in part by additional development on private lands in this country and in other countries. The point, however, is that these are issues worthy of critical analysis before major decisions are made to increase oil and gas production on federal lands. Courts have begun to require such analysis in other contexts, including for example in the related context of federal coal leasing.⁴⁰ The government would be wise to learn from these cases and get out in front of this issue. If they fail to do so, it seems likely that courts will require it.

To summarize, a wide range of factors influences federal oil and gas production but probably none more so than the commodity markets. The sharp decline in the market price for oil and gas over the last several years has led to a decline in private sector interest in federal oil and gas development. Nonetheless, federal oil and gas production remains at historically high levels, notwithstanding the fact that the BLM has issued and companies have utilized far fewer federal leases and drilling permits. Other complex factors associated with managing our public land resources, including the multiple use mandate, the protection of conservation lands, the relatively minor role of federal lands to the shale oil and gas boom, and climate change all suggest the need for a more cautious approach toward pushing new oil and gas development on public lands, and they further suggest that the BLM's leasing and permitting policies have not been stifling oil and gas development on our public lands. On the contrary, public lands oil and gas development remains robust even as the federal government is receiving far less revenue from our public oil and gas resources than the market will bear. Artificially stimulating federal oil and gas development at the present time and under present market conditions would not be a rational response and could adversely impact long-term government revenues even as it leads to more environmental degradation.

Thank you again for the opportunity to appear before the Committee today. I wish the Committee well as it seeks to address the important issues that surround the development of oil and gas on our nation's public lands.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark Squillace", written in a cursive style.

Mark Squillace

⁴⁰ See e.g., *Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1217 (9th Cir.2008); *High Country Conservation Advocates v. United States Forest Service*, 52 F. Supp.3d 1174, 1190-91 (D. Col. 2014).