Kathleen Sgamma
Vice President of Government & Public Affairs
Western Energy Alliance

Testimony Before the Senate Committee on Energy and Natural Resources, Subcommittee on Public Lands, Forests, and Mining

The Bureau of Land Management's Proposed Rule "Waste Prevention, Production Subject to Royalties, and Resources Conservation"
April 14, 2016

Western Energy Alliance represents over 450 companies engaged in all aspects of environmentally responsible exploration and production of oil and natural gas in the West. The Alliance represents independents, the majority of which are small businesses with an average of fifteen employees.

Any energy development–oil, natural gas, wind, solar, biofuels, hydro, and nuclear–has environmental impacts. The key is to ensure that those impacts are minimized, and that risks to air, water, wildlife, the land and other resource values are properly reduced through sound operational practices and appropriate, balanced regulation. I'm proud that my industry has responded to every legitimate environmental challenge by continuing to innovate and reduce environmental impact while providing energy that forms the basis of the economy and the American lifestyle.

One of those environmental challenges involves methane emissions. The oil and natural gas industry has delivered significant greenhouse gas (GHG) reductions of its own accord. Methane emissions from oil and natural gas production have declined by 21% since 1990[1] without federal regulation, even as natural gas production has increased by 47%.[2] The oil and natural gas industry is no longer the largest source of U.S. anthropogenic methane emissions, having fallen behind agriculture. We do not need federal rules to tell us to capture methane, because it is the very product we're working so hard to capture and sell.

The oil and natural gas industry is indeed the only one that captures methane in significant quantities and puts it to beneficial use to heat homes, power manufacturing, fuel transportation, and generate electricity. The increased use of natural gas for electricity generation has been the primary reason the United States has cut GHG emissions significantly.[3] We deliver GHG reductions in the electricity sector, which emits ten times more GHGs than the oil and natural gas industry does on the production end. The Brookings Institution estimates that modern combined-cycle natural gas turbines cut 2.6 times more carbon-dioxide emissions than wind, and four times more than solar.[4] Increased natural gas electricity generation has displaced 59% more greenhouse gas emissions than wind and solar electricity combined since 2006.[5]

---

[1] *Draft Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2014*, EPA, February 2016.
[2] *U.S. Natural Gas Marketed Production*, U.S. Energy Information Administration (EIA).
[3] *World Energy Outlook (2011)*, International Energy Agency; *U.S. Energy-Related Carbon Dioxide Emissions*, U.S. Energy Information Administration, Figure 12.
[4] *The Net Benefits of Low and No-Carbon Electricity Technologies*, Charles R. Frank Jr., Global Economy and Development at Brookings, Working Paper 73, May 2014.
[5] *October 2015 Monthly Energy Review*, EIA, Table 12.6.

Inappropriate Climate Change Regulation

BLM's proposed rule would make natural gas development more expensive and time consuming, resulting in less American natural gas production than without the rule, which is directly counterproductive to the president's climate change goals. By focusing on the small picture, the rule is losing sight of the bigger picture.

The entire oil and natural gas industry represents about 3.4% of total U.S. GHG emissions, according to the Environmental Protection Agency's (EPA) GHG inventory. Methane emissions from exploration and production are 1.07% of total U.S. GHG emissions. Our methane emissions are well below the 3.2% threshold that the Environmental Defense Fund (EDF) considers natural gas to deliver a climate change benefit.[6] BLM's rule is focused just on methane emissions from the well site, which several studies have shown are low.[7] According to studies from the University of Texas and EDF, leakage rates at upstream production sites are a mere 0.38% to 0.42% of gross production volumes.[8] Since public lands provide just 11% of overall natural gas production, this rule is focused on a small source of emissions.

The rule would have negligible impact on GHG emissions. Global methane emissions are estimated at 6,875 million metric tons of CO_2 equivalents (CO_2-eq) per year, with U.S. methane emissions representing about 10.2% of global emissions, or 708 million metric tons. BLM estimates that the rule would reduce between 4.1 and 4.2 million metric tons of CO_2-eq per year,[9] which equates to 0.061% of global methane emissions. Methane emissions are only a small portion of the total global GHG emissions of 45,863 million metric tons of CO_2-eq.[10] By BLM's most ambitious estimates, the rule would reduce approximately 0.0092% of global GHG emissions, a miniscule reduction.

Regulatory Overreach

The oil and natural gas is already delivering methane emissions reductions at the well site in the absence of federal methane regulations. Federal regulations that make mandatory what industry is already doing invariably result in more red tape, more expense and less efficiency, resulting in less natural gas than would otherwise be produced and less overall climate change benefits.

The effect of this rule in terms of driving more development off federal lands is more pronounced because it is just the latest in an onslaught of new regulations and policies from BLM. The Keep-It-in-the-Ground movement, which is trying to stop all oil and natural gas development on public lands, doesn't really need to do much. The Administration has focused on an overwhelming number of new regulations on the oil and natural gas industry that cumulatively extend far beyond reasonable regulatory oversight and into mechanisms for controlling and slowing production in America. Over the last year, Western Energy Alliance has responded to 48 regulatory processes involving 49,226 pages of regulatory documents from just EPA and the Interior Department.

---

[6] *What will it take to get sustained benefits from Natural Gas?*, EDF

[7] Energy in Depth provides several compilations of studies regarding methane rates.

8 *Methane Emissions from Process Equipment at Natural Gas Production Sites in the United States: Liquid Unloadings*, David T. Allen et al., December 9, 2014; *Methane Emissions from Process Equipment at Natural Gas Production Sites in the United States: Pneumatic Controllers*, David T. Allen et al., December 9, 2014.

[9] *Fact Sheet on Methane and Waste Reduction Rule.* Bureau of Land Management. January 2016.

[10] *Climate Change Indicators in the United States*, EPA.

By the same token, the Administration can barely keep up as it tries to achieve all its regulatory goals before the clock runs out on January 20, 2017. Agencies not following proper procedures required by law to properly justify new regulations and show that they deliver benefits commensurate with the cost. The inevitable corners being cut in the regulatory process leave them vulnerable to future lawsuits. The fundamental question related to BLM's rule is whether we as a nation want to encourage responsible energy development on multiple-use public lands, or do we want to shut it down through regulation. If the goal is to continue to discourage oil and natural gas development on federal lands, then this rule will indeed further that goal.

Lack of Authority

The rule is a broad new regulatory regime that goes far beyond BLM's authority under the Mineral Leasing Act (MLA). NTL-4A governs how BLM determines whether gas vented or flared is waste gas, unavoidably lost or used beneficially on site to increase yield. If it is deemed avoidably lost, then it is subject to royalty payment. BLM has an obligation to make determinations based on the actual operational, economic, and infrastructure circumstances for each well site.

Were the rule merely an update to NTL-4A, tightening the definitions of avoidable and unavoidable, then it would be a reasonable regulation. However, it strays far beyond and is truly a bold usurpation of air quality regulatory authority that Congress has not given to BLM. The rule even attempts to regulate existing sources, something EPA cannot even do without following very stringent Clean Air Act (CAA) procedures.

The CAA is an extremely comprehensive law that gives EPA and states broad powers to regulate air emissions. However, there are procedures that EPA must follow before it can impose new controls. BLM is proposing to impose CAA-like controls without adhering to any CAA constraints, which even EPA in all its expansiveness does not dare do.

EPA is in the process of imposing New Source Performance Standards (NSPS) for methane, and has just announced plans to address existing sources. Even if BLM had the authority to regulate air quality, its proposed rule overlaps with EPA's NSPS OOOO and OOOOa regulations in many aspects. Why is BLM attempting to duplicate what EPA is doing?

BLM's primary governing statute, the Federal Land Policy and Management Act (FLPMA), requires BLM to manage public lands under the principle of multiple use and sustained yield in accordance with applicable law. Rather than focusing on its land management activities and simply ensuring that operations are in compliance with all other laws, BLM has in effect interpreted FLPMA as giving it power to impose environmental regulations, an expansive interpretation that clearly exceeds the intentions of Congress when it gave BLM public lands management responsibilities and EPA air quality responsibilities back in the 1970s. In order to avoid mandates that are duplicative or conflicting with EPA's, BLM should remove all air quality provisions in the rule and defer to EPA's ongoing and planned methane regulations.

State and Tribal Solutions

With this proposed rule, once again the federal government is proposing a top-down rule and planning to implement it uniformly across the country, despite the fact that the majority of public land states do

not have high levels of flaring. It is well known that North Dakota has higher levels of flaring because of the recent oil boom in the Bakken, and that the infrastructure necessary to increase capture rates of associated gas from the oil wells takes time to install. The unconventional development in the Permian Basin of New Mexico and Texas is another example of relatively higher rates of flaring because of new development. In other states with mature oil plays, flaring rates are low. For example, Wyoming's is a very low 0.26% according to data compiled as part of the state's recent rulemaking.

States and tribes are the key to effective regulation, not the federal government. States are able to tailor regulations to the geologic, infrastructure, gas composition, economic, and other conditions that make each producing basin unique. They can more readily identify the environmental needs of a particular area and tailor regulation accordingly. For example, Colorado's methane capture rule may seem feasible on the Front Range, an area of high population in an ozone nonattainment area with easy access to the field from Denver, but is not at all suited for remote public lands areas across the West.

The State of North Dakota identified the problem of high levels of flaring associated with the oil boom, and started to solve the challenge along with industry well before the federal government jumped into the game. The North Dakota Petroleum Council (NDPC) formed a flaring task force in 2013 and presented findings and recommendations to the North Dakota Industrial Commission, which established formal flaring reduction goals in June, 2014. As a result of the collaborative state/industry efforts, gas capture rates climbed from approximately 64% in 2013 to 87% currently, with further reductions required in the future. To achieve this success, industry has invested over $13 billion in infrastructure projects completed or currently under construction.[11]

Rights-of-Way Delays

Whereas states and industry are working constructively to reduce flaring, BLM has often been a hindrance by delaying the approval of the very rights-of-way that are required before companies can lay the pipelines and gas gathering lines necessary to capture the gas. Rather than going through a lengthy rulemaking on a tenuous legal foundation, BLM could reduce flaring in the very near term by simply approving the backlog of requests. Not surprisingly, the rule is all about BLM leveling more requirements on companies, but not on itself.

Cost Ineffective

The rule is extremely costly, even by BLM's fundamentally flawed economic analysis. It would impose between $125 million and $161 million in cost on companies to capture a scant additional $11 million in royalties.[12] To put it in perspective, $11 million is 0.3% of the $4.1 billion in royalties that the oil and natural gas delivered to the government in 2014. Only in government cost accounting would that be considered a cost effective rule.

Using highly flawed Social Cost of Methane (SCM) models, BLM asserts benefits from climate change to wipe away this cost. Yet BLM lacks authority to justify waste prevention measures by adding in supposed climate change benefits realized by society at large. With a wave of its SCM wand, BLM claims a $188

[11] *Supplemental Statement of Reasons in Support of Appellant's Request for State Director Review*, NDPC, SDR-922-15-07, November 18, 2015.

[12] *Fact Sheet on Methane and Waste Reduction Rule*, BLM, January 22, 2016; royalty information presented by BLM at rule hearing March 1, 2016 in Lakewood, CO.

million benefit from the rule that wipes out $161 million of actual direct costs. Applying a realistic natural gas price to BLM's analysis, removing the tenuous monetization of climate change benefits, and holding all other cost assumptions equal results in a benefit of just $90 million.

Economics consulting firm John Dunham and Associates finds, after looking at the full range of costs, that the rule would likely cost about $1.26 billion dollars annually, vastly overwhelming the $90 million in benefits. This includes a loss of $65.6 million in federal corporate and personal taxes, and $48.5 million in annual lost state and local tax collections, also swamping the $11 million in additional royalties claimed.

Risk to Existing Production

With such a costly rule, many existing wells will be shut-in and new wells not developed, denying the federal treasury much larger royalties than the rule will return. Marginal wells, those of 15 barrels of oil or 90 Mcf of natural gas, are estimated to provide nearly 20% of U.S. oil and natural gas production.[13] Many of these marginally economic wells on public lands would be shut in if the BLM rule goes into effect as is.

The New Mexico Oil and Gas Association estimates that 5% of wells in New Mexico would be prematurely plugged and abandoned because of this rule, resulting in 3,200 lost jobs. Wells abandoned prematurely represent a huge waste of oil and natural gas resources, yet BLM has not adequately quantified such waste in this so-called "waste prevention" rule. About 25% of natural gas wells in northwest New Mexico's San Juan Basin are already uneconomic at today's prices hovering around $2.00/Mcf. Another 12.5% of San Juan wells would become cash flow negative with just an additional $5,000 in annual costs, shutting in about 3,800 wells.

Rather than focusing on all existing sources, including low volume, low-emitting wells and wasting resources from premature shut-ins, any regulation should focus on large emitters, which have been recognized as the only really significant sources of methane emissions in the upstream sector. Were BLM to act appropriately and within its jurisdiction, it would defer to EPA.

Unavoidably Lost Gas

The Mineral Leasing Act does give BLM authority to determine whether gas that is not captured is royalty bearing. NTL-4A governs how BLM determines whether gas vented or flared is waste gas that should be subject to royalties, or is unavoidably lost. However, many provisions under this authority are not economically or operationally practical and in some cases could result in unsafe conditions at well sites.

The MLA specifies that gas is "wasted" only if it could have been economically captured and marketed or put to beneficial use on the lease but is not. BLM must demonstrate that the gas cannot be economically captured by the operator. If the gas cannot be economically captured then it is not being "wasted." The rule would characterize gas as avoidably lost in many circumstances in which economic, infrastructure capacity and other conditions make capture impractical.

[13] The National Stripper Well Association quoting the Interstate Oil & Gas Compact Commission.

BLM seeks to impose a no venting standard that is not technically feasible in many circumstances, and could lead to unsafe drilling and completion practices. There are situations where gas must be vented to avoid potentially serious well control problems. Capturing gas during drilling operations is often infeasible because of low pressure, low volume, and intermittency. EPA's recent OOOOa regulations allow exceptions for operational reasons that BLM does not acknowledge.

BLM is also proposing to limit flaring of gas, with narrow exceptions, to 1,800 Mcf/month per well, regardless of the circumstances of the operations. This proposed standard was derived from Utah and Wyoming state rules that are not appropriate models for a nationwide standard. Utah's flaring limit was established in 1988 based on vertical wells in the Altamont Bluebell field during the 1970s and 1980s. The Altamont Bluebell field is a vertical play even today, with little to no horizontal drilling, that produces a high paraffin crude oil substantially different in chemical composition than the light crude being developed in the Bakken and Permian basins. Bakken wells produce about 2.5 times the oil and more than double the gas than an Altamont Bluebell well.

Applying a standard set for lower-producing vertical wells to horizontal wells would result in producers having to scale back production from highly productive wells in order to stay under the limit. Besides limiting the economic viability of oil development on public lands, it represents a waste of resources, which should be considered antithetical in a rule proposing to minimize "waste."

Royalty Rate

The MLA gives the Secretary of the Interior the discretion to set the royalty rate for leases at not less than 12.5%, but it is beyond her authority to use royalty rates to promote a methane reduction policy. Further, the "royalty adder" provision to charge higher royalty rates if operators exceed certain flaring thresholds is not practical.

Companies carefully assess the economic potential of leases before acquiring them. Planning for development under a scenario of fluctuating royalty rates based on flaring rates, which cannot be know prior to development, becomes extremely difficult. The rate of flaring is not completely in the control of the operator, who must rely on midstream companies to provide adequate pipeline and gas plant capacity. Royalty reporting is already extremely complex, and would become more so with fluctuating royalty rates.

The federal government has so overburdened public lands with extra process, regulation and cost that it is simply not in a position to charge higher royalty rates. Sowing additional uncertainty about royalty rates is not a sensible policy if the Interior Department expects to earn substantial royalties from oil and natural gas development.

Because industry continues to reduce methane emissions and states are developing tailored solutions based on actual operating conditions, BLM should not move forward with a rule that exceeds its authority. BLM's one-size-fits-all approach is not well suited to most public land states and redundant with EPA's ongoing or planned regulations.