

THE HILL



Capturing Methane: Turning environmental costs into revenues

June 17, 2016

Capturing methane and preventing waste at oil and gas operations on federal lands is an opportunity to turn environmental costs into revenues for the oil and gas industry.

Since methane is the primary component of natural gas, wasted methane means wasted energy and lost revenue for both energy companies and the American taxpayer. In fact, local, state, federal and tribal governments are missing out in tens of millions of dollars in royalty revenue each year.

The issue of methane waste on public lands made national headlines when NASA **discovered** a methane cloud hovering overhead the San Juan Basin in Four Corners region of northwest New Mexico. According to a recent analysis, the region is responsible for only 4 percent of total U.S. natural gas production, but is responsible for 17 percent of the nation's overall natural gas waste on federal and tribal lands. ICF International **found** that nearly a third of all methane wasted on public and tribal lands occurs in New Mexico.

The U.S. Bureau of Land Management (BLM) is revising federal oil and gas rules in to order reduce natural gas waste and provide a fair return on public resources for taxpayers. Our organization, the Conservation Economics Institute, wanted to know what the costs of the BLM natural gas waste rule would be for the oil and natural gas industry. Our findings were clear. The BLM rule would be a win-win scenario for the environment and for the industry's bottom line. Oil and gas companies have much to gain by embracing the rules.

Given that New Mexico is the literal "hot spot" of this controversy and to best understand the impact of the rule, we thought it was important to take a close look at existing, marginal wells where companies have the slimmest profit margins.

We conducted an **analysis** of 8,700 low-producing natural gas wells in San Juan and Rio Arriba counties of New Mexico to determine what affect the rule would have on production.

Here's what we learned: low commodity prices and increased competition from shale plays are the primary drivers behind the current energy downturn, not environmental regulations. Compliance with the BLM's natural gas waste rule will not be a primary economic factor for the determination of continued production versus well shut-in, and may very well improve most well financials.

We specifically looked at the most important tool in the toolbox for cutting waste at existing well sites, the BLM's leak detection and repair (LDAR) requirements. Under all of the price scenarios examined, we estimate that detecting and repairing leaks at natural gas well pads will have a net positive effect.

Assuming the markets recover in 3 or 4 years, the BLM measures to cut waste by detecting and plugging leaks from natural gas operations on public and tribal lands in the San Juan Basin, will increase overall

production, and generate millions in additional royalty revenues for local governments, education programs, and the federal treasury.

For companies motivated to be proactive, we recommend focusing on fixing the leaks from the wells that leak the most methane. We would also strive for early compliance, that is comply with the rules at a faster pace than required by the new rules. By capturing the methane revenue earlier in time the economic return from compliance will increase along with corporate social responsibility – both of which can attract investors.

The BLM natural gas waste rule is well-designed to push technological innovation with ample economic incentives for industry compliance. Simply put, this is an economic opportunity waiting to happen for the oil and gas industry, and in return the public will get cleaner air and increased tax revenue.

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