

Research

Costs and Benefits of the BLM Methane Rule

PHILIP ROSSETTI | MARCH 6, 2017

Summary

- Congress is deciding whether to use the Congressional Review Act to overturn a recent rule that limits methane releases from natural gas production on federal land.
- The BLM rule would cost up to \$279 million annually, mostly borne by small businesses that would pay on average \$42,300 63,600 each for compliance.
- The climate benefits of the rule are quite small, since it is only estimated to cut annual emissions by 4.5 million tons (CO2 equivalent), which is about 0.065 percent of U.S. emissions relative to 2005 levels. It is also unknown if the rule would deter future natural gas production, which displaces coal consumption.

Introduction

The Senate is poised to vote on overturning a regulation from the Bureau of Land Management (BLM) that would curb methane emissions from natural gas extraction on federal land. The rule primarily targets leaks, venting, and flaring. There are times when natural gas producers release methane into the atmosphere, rather than capturing and selling it as part of their natural gas product. The rule, despite its small size, is a target of the Congressional Review Act (CRA).

What is the BLM Methane Rule? Is it Net Beneficial?

The rule coming from the BLM would put statutory limits on the amount methane that natural gas producers on federal land may release or burn off as part of their production. The primary legal argument for the BLM rule is that methane is a combustible gas (and is encompassed by the natural gas definition umbrella), therefore expending it, rather than capturing it, is a loss to public resources. The more publicized reason for the rule is that it will act as a measure to curb greenhouse gases.

By the BLM's estimates, the rule is expected to abate 4.5 million metric tons of greenhouse gases annually (CO2 equivalent), recover \$20 - 157 million in annual cost savings, and yield \$189 - 247 million in social benefits (abating the social cost of methane). The global total for annual benefits were estimated by the previous administration to be \$209 - 403 million.

The rule is not without costs though. The estimated annual burdens are \$110 - 279 million. Small businesses (defined as fewer than 1,250 employees) are expected to bear most the burdens, with an estimated 1,828 entities to be impacted and have an average per-entity cost of \$42,300 - 63,600. Notice that the rule is not net beneficial on a cost savings basis, which somewhat delegitimizes the argument that there are significant economic losses to the public associated with the practice.

The bigger portion of the benefits comes from estimated social benefits, but it is worth noting that this is an estimation of global benefits, not domestic ones. In deciding if the rule is an effective climate policy, we can compare the per-ton benefits to the per-ton costs. This rule would cost \$24.44 – 61.11 per ton abated (CO2 equivalent), and the estimated global benefit from each ton abated is \$36 per ton (3 percent discount rate). When reducing the abatement price by the expected cost savings, the per-ton abatement cost falls to \$20 – 26.22. The rule is not net beneficial from its climate benefits alone, and can only be considered a cost-effective greenhouse gas regulation if it is assumed that the estimated cost savings from selling captured methane are realized. However, there is unlikely to be any meaningful climate policy impact from the BLM rule, since 4.5 million metric tons (CO2 equivalent) is only 0.065 percent of emissions relative to 2005 levels.

Policy Relevance of the Congressional Review Act

On the surface, the CRA may seem like a simple tool to overturn regulations that Congress does not deem to be consistent with the intent of the law. However, the wording of the CRA is such that once a regulation is overturned, regulators cannot introduce any similar rules. If the CRA is used to overturn the BLM methane rule, then it could be tantamount to a Congressional decision that federal regulation on venting or flaring of natural gas on federal land is off limits. There might not be an opportunity to rewrite or evaluate the rule. For this reason, the use of the CRA has been contentious beyond the substance of the targeted rule itself. Senators that now must decide (the House has already voted in favor of the CRA) not just if they dislike the rule, but if they think that federal regulations on gas extraction on federal land is warranted.

Poorly Designed Policy

Per the latest U.S. inventory of greenhouse gases, natural gas systems nationwide emit 219 million metric tons of greenhouse gases, or about 3 percent of the current total. Only 15.1 percent of U.S. natural gas production comes from federal land, so the BLM's rule would only target a very small portion of national emissions, and primarily small businesses at that. Only a portion of the social benefits which are used to justify the rule will be realized domestically, meaning that the rule is unlikely to recoup enough savings that make the rule net beneficial domestically—an important point, since if this was true the producers would already be cutting emissions to save money.

The natural reaction to the policy, though, will be some combination of producers less inclined to seek federal land leases, lowered production, or higher costs. In the regulatory impact analysis, the BLM acknowledges that it is possible future natural gas production will be foregone. This is disturbing as a climate policy, since natural gas has been the biggest driver of declining emissions in the U.S., as natural gas now produces a third of U.S. electricity, displacing dirtier and more expensive coal. Rules that constrain natural gas production could have

unintended environmental impacts by deterring future natural gas production that would displace dirtier energy sources.

Conclusion

The rule's cost savings do not outweigh the burden to the private sector, which will mostly be borne by small businesses. The social benefits of the rule would be realized globally, despite being used to justify domestic burdens. As a climate policy, the rule would only cut emissions by 0.065 percent, and could have unintended consequences by constraining natural gas supplies—a much more significant driver of declining emissions than regulation.

The more prescient policy question is if the CRA is the appropriate tool to overturn the regulation, as this could prevent any further greenhouse gas regulation on natural gas production on federal lands. However, given that natural gas systems are only 3 percent of current total greenhouse gas emissions, the potential for significant climate benefit either through this regulation or future similar regulations is small, particularly given that market participants have a natural incentive to cut methane emissions to maximize natural gas yields.