



Insight

EPA Ups the Ante with New Methane Proposal

DAN BOSCH | NOVEMBER 15, 2022

EXECUTIVE SUMMARY

- The Environmental Protection Agency released the text of a supplemental proposed rule regulating methane emissions from the oil and natural gas industries, which is more stringent than the original proposed rule from 2021.
- The economic costs of the supplemental proposal are nearly double those of the 2021 proposed rule.
- Changes to the assumptions of current industry emissions mean the rule will actually have fewer expected climate benefits than the 2021 proposed rule, despite a 13 percent increase in reduced emissions from 2005 levels by 2030.

INTRODUCTION

For the second consecutive year, the Environmental Protection Agency (EPA) unveiled a proposed rule regarding methane emissions from the oil and natural gas sectors during the United Nations' annual climate change meeting. The latest version is a supplemental proposed rule to last year's and builds off that proposal to impose more stringent requirements. With those stringent requirements comes a near doubling of the economic costs to provide a 13 percent increase in reduced emissions from 2005 levels by 2030 – an example of diminishing marginal returns that often arises when increasing the stringency of regulations.

This analysis explains the additional elements of the supplemental proposal and the changes in the rule's expected economic and emissions impact.

COMPONENTS OF THE SUPPLEMENTAL PROPOSED RULE

Current regulations cover only new and modified sources, primarily oil and natural gas wells and drilling sites. EPA's 2021 proposal was noteworthy because, for the first time, the agency proposed "emissions guidelines" that would set out a model regulatory policy that states would have to implement on existing sources, vastly increasing the scope of covered sites.

Based on initial feedback from the 2021 proposal and new information on actual emissions from covered sites, the supplemental proposed rule makes several changes. One significant change is a more stringent requirement to find and fix emissions leaks from equipment. Whereas the 2021 proposal relied on estimating a site's emissions due to leaks, the supplemental proposal relies instead on the types and amount of equipment present at the site. EPA argues that this approach will make it easier for industry to comply. It also expands the coverage of the rule. The 2021 proposal exempted smaller emitters from the requirement. The supplemental proposed rule eliminates those exemptions.

Another major change is that the supplemental proposal will cover abandoned and unplugged wells. The 2021

proposed rule did not offer a means to regulate these wells, which can contribute significant emissions. Instead, EPA sought feedback on how it might regulate the wells. The agency now proposes to cover the wells, requiring the site owners to continue to monitor emissions, submit a closure plan to EPA, and complete a closure survey to ensure that no emissions are present.

The supplemental proposal also contains other changes, including increasing the stringency of requirements pertaining to flaring, pneumatic pumps, and dry seal compressors. It would also create a Super-Emitter Response Program for sites that emit a lot of methane. A small number of sites contribute about half of the industry's emissions, and the program will allow EPA to focus on these areas, according to the agency.

CHANGES IN ESTIMATED ECONOMIC IMPACT AND EMISSIONS REDUCTIONS

EPA's analysis estimates the total compliance costs of the supplemental proposed rule to be \$15 billion (at a 7 percent discount rate) from 2023–2035. The costs, however, are offset somewhat by product recovery requirements that will enable operators to sell or otherwise use methane that previously would have been lost through various leaks and intentional release. EPA estimates the value of such recovery at about \$3.3 billion over the same period, resulting in a net cost of approximately \$12 billion (costs do not sum correctly due to rounding from EPA). That makes the rule the seventh most expensive proposed rule of the Biden Administration, according to the [RegRodeo](#) database. The agency includes a primary estimate of the climate benefits of the proposal at \$48 billion using the [social cost of methane](#) at a 3 percent discount rate, though it notes that depending on the discount rate used such benefits range from \$19 billion to \$130 billion.

Direct comparisons to the 2021 proposal are tricky because EPA says it has improved its modeling over the past year. Still, the net costs of the supplemental proposal are nearly double the 2021 proposal (\$12 billion versus \$6.3 billion). A notable difference from the modeling change is on the emissions benefits side. The new model, and what EPA says in its [regulatory impact analysis](#) are updates to “assumptions and methodologies,” led to a decrease in projected absolute emissions reductions compared to the 2021 proposal but an *increase* in the percentage reduction of total methane emissions. The discrepancy can mostly be explained by the new model, which assumes that industry emissions have been less than previously thought.

According to EPA, emissions in 2030 will be 87 percent less than 2005 under the supplemental proposed rule. By comparison, the 2021 proposal projected a reduction of 74 percent. Absolute emissions reductions, however, are 110 million metric tons of carbon dioxide equivalent less than last year's proposed rule. This change has ramifications for the climate benefits estimation. The primary estimated climate benefits of the supplemental are \$7 billion less than 2021, and the range is anywhere from \$3 billion to \$20 billion less.

CONCLUSION

The EPA's supplemental proposed rule is the latest regulatory effort from the Biden Administration to reduce greenhouse gas emissions. Its increased stringency and coverage nearly double the rule's cost compared to the agency's 2021 proposal while increasing emissions reductions by 13 percent. According to the regulatory impact analysis associated with the rule, the agency expects the rule to be finalized next year.