

DIFFERENTIATED GAS COORDINATING COUNCIL

January 18, 2023

The Honorable Michael S. Regan
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Re: Request for Information Docket 6: Methane Emissions Reduction Program [60113]
Docket ID EPA-HQ-OAR-2022-0875

Dear Administrator Regan:

The Differentiated Gas Coordinating Council (DGCC) appreciates the opportunity to provide comments on the U.S. Environmental Protection Agency's (EPA) Request for Information (RFI) regarding funding for the Methane Emissions Reduction Program under Section 60113 of the Inflation Reduction Act (IRA).

The DGCC is an ad hoc coalition of stakeholders across the natural gas supply chain dedicated to expanding the market for low methane, "differentiated" natural gas. Its members include academics; downstream, midstream, and upstream energy producers; gas customers; and technology companies. The DGCC's goal is to facilitate a federal pathway for state regulators, utilities, and gas consumers to accept differentiated gas as an important option to meet their climate goals.

As such, the DGCC recommends the EPA use the funds appropriated by Congress in Section 60113 of the IRA to fund the deployment of advanced monitoring technologies, including continuous emission monitors, thereby lowering their costs, increasing economies of scale, and generally expanding their availability throughout the oil and natural gas sector.

On the following pages, please find our responses to questions posed by the EPA in its RFI for the Methane Emissions Reduction Program.

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EPA Questions

1. [...] How can EPA structure the financial and technical assistance to ensure the greatest possible public health and environmental impact?
2. How can EPA ensure that [...] Incentive Program complements rather than duplicates other federal and state programs [...]?
3. [...] What kinds of technical assistance would be most valuable? [...]
4. [...] are there unique considerations related to marginal conventional wells that EPA should consider? How can EPA ensure that relevant stakeholders are engaged, including owners and operators of marginal conventional wells and those affected by marginal wells and their emissions?
5. What should the EPA consider in the design of the program to encourage grantees to support high quality jobs and adhere to best practices for labor standards [...]
6. What metrics should this program use for measuring success and ensuring accountability?
7. [...] What issues should EPA consider related to waste emissions charge implementation?
8. [...] What revisions should EPA consider related to GHGRP Subpart W?

Comment on Question 1 – “Greatest Possible Environmental Impact”

The funding available under the IRA is an outstanding opportunity for the nation to invest in a long-lasting methane monitoring infrastructure to enable oil and gas production, processing, and transmission with minimum associated methane emissions. Further, it can accelerate the development of a market for certified, low-emissions natural gas (i.e., differentiated gas) for both domestic and foreign consumers. A large-scale grant program for continuous monitoring will be cost-effective due to the disproportionate impact of methane super-emitters on public health and the environment. Continuous monitoring technologies also benefit the health and safety of workers by providing workers with near real-time data for the presence of methane emissions on location. In the design of support programs for continuous monitoring solutions as well as other measures, we recommend EPA implement the following principles:

1. Selection and prioritization of all potential assistance programs relevant to upstream and midstream operations should consider the cost-effectiveness of methane emission reductions (dollars spent per expected ton of methane reduction over the lifetime of the supported asset) in combination with the absolute scale of reductions achievable through this program and the current state of the adoption of the control technology being considered.
2. Assistance programs should fund incremental reductions that exceed regulatory compliance—not assist in complying with regulations.
3. Funding should prioritize impacts that can generate economies of scale and incentivize non-participants to make voluntary emissions reductions.
4. Programs should focus on scaling existing commercial solutions as they will deliver immediate results, instead of investing in research and development efforts and technical assistance.
5. Disbursement of funding may be particularly beneficial at existing sites that will not fall under EPA’s 0000b regulations until 2026 and 2028. Early action on these sites with continuous monitoring will have a particularly large emissions reduction effect.
6. Funding should be in the form of direct grants to overcome economic disincentives and environmental externalities and should be available to operators, local distribution companies, and service and technology providers to incentivize multiple business models for the fastest adoption of continuous monitoring solutions.¹
7. Consistent standards are needed at the federal and state levels for continuous monitoring (e.g., minimum frequency of detection, minimum detection requirements, minimum measurement thresholds,

¹ Continuous monitoring detects more methane emissions than quarterly optical gas imaging inspections. However, except in rare cases, the incremental economic benefit of the sale of captured methane gas by an operator is small (typically a few dollars per million British thermal units [MMBtu]) while the environmental cost of emitted methane is much larger (\$1,500 per metric ton equates to about \$30 per MMBtu).

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and minimum quantification thresholds). Presently, state regulations vary widely and strain the ability of vendors to make cost-competitive products. State regulatory programs should be based on a single standard or simple, tiered standards that correspond to a state's desired level of stringency.

An investment in a nationwide continuous monitoring infrastructure will have major benefits:

1. Continuous monitoring is the most effective emissions mitigation tool for upstream and midstream operations and offers the greatest opportunity to achieve the nation's methane reduction goals by 2030. It also allows measuring and quantifying progress towards the goal.
2. Comparing quarterly optical gas imaging inspections with continuous monitoring, experts at Highwood Emissions Management modeled typical emissions reductions of 65% through quarterly OGI inspections and 88% by continuous monitoring once the impact of intermittent super-emitters is included in simulations. For moderately sized upstream sites, these incremental 23% emission reductions due to continuous monitoring are approximately 6 tons of Methane per year, per site.² Reductions vary significantly with the amount of equipment present and are significantly larger for large sites and midstream operations.
3. Continuous monitoring will accelerate the development of a market for differentiated gas, enabling operators to receive a premium price for certified low-emissions natural gas.
4. EPA investment in a continuous monitoring infrastructure will ensure short-, medium- and long-term effective emission measurement and reductions.
5. Beyond methane emission reduction, continuous monitoring will also cause a large reduction of volatile organic compounds with significant health benefits to those living near oil and gas sites.³
6. Large-scale adoption of continuous monitoring will provide direct measurement data for methane intensity calculations. Methane intensity forms the basis for the implementation of the methane fee and tax incentives for hydrogen production from natural gas.
7. Large-scale adoption of continuous monitoring will result in the large-scale creation of high-quality jobs for installation, operation, and maintenance as well as technology development (see also comment to question 5).

Comment on Question 2 – Avoiding Duplication

Aside from the Advanced Leak and Repair Monitoring (ALARM) technology tax credit in New Mexico, which has a limited scope, there are currently no financial support programs for operators to employ continuous monitoring solutions in the U.S.⁴ The proposed continuous monitoring grant program would not be duplicative, because it will support long-term infrastructure that would not otherwise be installed. The large number of sites of the U.S. oil and gas industry means that even a sizable assistance program under the IRA methane incentive may only cover a portion of sites where continuous monitoring would be beneficial.

Equally important is the coordination of regulatory requirements across federal and state agencies to ensure economies of scale in the deployment of advanced measurement solutions like continuous monitoring.⁵

² Upstream site with several storage tanks and associated equipment.

³ Communities living near upstream oil and gas sites are typically economically disadvantaged. Continuous monitoring will lead to much faster mitigation of super-emitters, reduce volatile organic compounds emissions, and improve health outcomes for disadvantaged communities. See <https://link.springer.com/article/10.1007/s11111-022-00403-2>.

⁴ See <https://www.emnrd.nm.gov/ocd/methane-waste-rule/>.

⁵ For example, the coordination among and between the EPA's 0000a/b/c, proposed methane supplemental, Subpart W, and methane fee rules; the Bureau of Land Management's proposed methane rules; the Pipeline and Hazardous Materials Safety Administration's natural gas gathering line methane rules; the Securities and Exchange Commission's proposed climate disclosure rule; and the Internal Revenue Service's hydrogen tax credit.

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Comment on Question 3 – Types of Technical Assistance

The highest impact assistance that EPA can provide for emissions mitigation and reduction will be in the form of grant support for monitoring and mitigation technologies as it provides permanent infrastructure for sustained emissions reductions that will endure far beyond the program end date. Technical assistance beyond grant support for continuous monitoring may be impactful in specific circumstances. For example, small and medium operators may be less likely to apply for assistance programs due to a lack of capacity and capabilities. EPA should provide financial and technical assistance to support grant applications and planning studies directly or via third parties that support program uptake by smaller and medium size operators. The vast majority of stripper wells are operated by small and medium operators and these companies have less funds to allocate for these types of mitigation.

Comment on Question 4 – Engagement of marginal well owners and stakeholders

Marginal wells (and lower-producing non-marginal wells) remain a significant contributor to overall emissions as the prevalence of emissions and of super-emitters is proportional not to the amount of production but to the amount of equipment at a site. Marginal conventional wells are operated with very few personnel due to their low production. One approach to reach marginal well operators may be through service providers that administer grants on behalf of well owners and implement methane emission reduction improvements without charge to the site owner.

Comment on Question 5 – High Quality Jobs

A large-scale grant program for a nationwide infrastructure for continuous monitoring of methane emissions will create a large number of high-quality jobs across the country. Most of these jobs will be related to planning and conducting field installations of equipment and the operation and maintenance of that equipment. Another portion of jobs created will be related to conducting root cause analysis and repairs. These roles will also be needed on an ongoing basis, even after the initial installation of continuous monitors is complete, because continuous monitors will regularly find emissions. This type of work is highly specialized and requires significant safety training and technical expertise. There is currently a shortage of oil field service workers which could potentially impact the implementation of large-scale programs.

As the work at oil and gas sites requires high-quality jobs by default, EPA may want to refrain from creating additional requirements related to the job itself when disbursing funding. Instead, EPA may want to consider funding vocational job training programs to increase the availability of oil field service workers who can install continuous monitors (including related solar power installations) and repair super-emitters. The production of continuous monitoring equipment only has a modest employment impact as a continuous monitoring device can usually be produced with a few hours of labor at most. Accordingly, EPA may want to refrain from burdening continuous monitoring equipment providers with any requirements related to labor standards or the origin of materials used in the equipment as this will slow down the ramp up of production and endanger the success of the overall program.

Comment on Question 6 – Metrics for Success and Accountability

A key metric for success should be increasing the frequency of leak detection and shortening the amount of time elapsed until a leak is repaired. From these data, EPA may be able to estimate how long emissions would have continued in the absence of continuous monitoring and, by extension, the overall amount of emissions reduced by the program.

Comment on Question 7 – Waste Emissions Charge Implementation

The fact that the waste emissions charge is denominated on a per ton basis makes clear that Congress intends that EPA should accelerate the oil and gas sector's transition to advanced technologies capable of

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quantifying annual emissions. Because the charge will apply starting with 2025 emissions, the EPA has an interest in ensuring widespread deployment of continuous monitoring systems as quickly as possible.

High frequency, accurate methane measurements, along with a regulatory pathway for technological advancements, are critical aspects to ensure the integrity of the waste emissions charge and are needed to ensure this program's benefits are realized. Operators cannot definitively demonstrate an accurate emissions inventory without empirically derived data and quantifiable measurements. Accuracy is paramount to ensuring that the charge is being allocated and accounted for effectively and limiting future liability risk to operators.

We believe that operators should be incentivized to demonstrate quantifiable reductions in emissions across the energy value chain. Continuous monitoring technologies at the site level yield the highest levels of accuracy and certainty regarding upstream methane intensity.

In addition to the funding incentives addressed above, EPA should also consider the importance of ensuring that the adoption of the proposed Section 111 Alternative Test Methods, including continuous monitoring, is efficient and effective, particularly the proposal to conditionally approve these methods if EPA has not completed its review within 270 days. This is core to the growth of advanced measurement technologies—the approval process must provide a reliable basis for operators to invest in better measurement. This will be advantageous to both the purpose of the Section 111 proposal and for the implementation of the waste emissions charge as it will provide both operators and the EPA with a more accurate accounting of methane emissions.

The EPA should also consider the importance of ensuring that other regulatory programs are aligned with the methane fee program and EPA's Section 111 proposal, such as the Department of the Interior's Bureau of Land Management's (BLM) Waste Proposed Waste Prevention, Production Subject to Royalties, and Resource Conservation Rule. Although the purpose and jurisdiction of EPA and BLM rulemakings are different, reliance on advanced measurement technologies will be similar and advantageous for both rules and the ultimate waste emissions charge rule. It would not make sense for an operator with contiguous state and federal leases to have contradictory requirements.

Comment on Question 8 – Greenhouse Gas Reporting Program (GHGRP) Subpart W Revisions

Measurement-based and quantified pad-level emissions generated through the utilization of advanced emissions detection and quantification technologies, including continuous monitoring, should be a reporting option for all sources within Subpart W. The DGCC suggests that EPA utilize a tiered approach for emissions reporting.

The first, and most preferred tier, should be measurement-based and quantified emissions generated through advanced emissions detection and quantification technologies. The second tier should be emissions generated through engineering calculations and modeling. The third tier should be emissions generated through agency-supplied emission factors. Tiers two and three should only be utilized in cases where measurement-based and quantified emissions have proven technically infeasible or are deemed inaccurate. When using calculated values in lieu of measurement, operators should document in their annual submittal to EPA why they did not or could not use quantified or measurement-based emissions values.

By allowing all sources of emissions to be informed by measurement-based and quantified emissions values, EPA will incentivize the investment in and adoption of advanced emissions detection technologies. An accurate greenhouse gas emissions inventory will result in more precise payments to the Treasury with respect to the methane fee. Through the use of measurement in lieu of emission factors that are known to both under- and over-estimate emissions, operators will be paying exactly what is owed regarding their emissions.

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About the Differentiated Gas Coordinating Council:

Established in 2022, the DGCC is an ad hoc coalition of stakeholders across the natural gas supply chain dedicated to expanding the market for low methane, “differentiated” natural gas. Its members include academics; downstream, midstream, and upstream energy producers; gas customers; and technology companies. The DGCC’s goal is to facilitate a federal pathway for state regulators, utilities, and gas consumers to accept differentiated gas as an important option to meet their climate goals. We believe that the adoption of differentiated gas is the best way to rapidly reduce methane emissions in the oil and gas sector—a win for American energy producers, energy consumers, and the climate.