

# The Methane Emissions Research Act of 2022

**This bill would empower EPA to measure and quantify methane emissions from domestic oil and gas operations. At a moment when reducing methane emissions has emerged as a cornerstone of U.S. climate pledges for the next decade, the bill represents an important step towards ensuring that the Federal Government possesses the accurate data it needs to measure progress and inform future policy.**

Oil and gas sector operations are the second-largest source of anthropogenic methane emissions in the United States.<sup>1</sup> Numerous analyses have concluded that the oil and gas sector is uniquely well-positioned to achieve rapid and large-scale reductions in methane emissions due to the cost-effectiveness and technological feasibility of sector-specific methane mitigation activities.<sup>2</sup> Properly understanding the scale and characteristics of oil and gas sector methane emissions is a crucial scientific foundation for developing effective emission reduction policies.

Unfortunately, significant data gaps exist regarding oil and gas sector methane emissions. Scientific research over the past decade has established that Federal greenhouse gas inventories likely underestimate methane emissions from the oil and gas supply chain by substantial amounts due to the unique characteristics of methane leaks from oil and gas operations.<sup>3</sup> The most effective means to resolve these data gaps is through the direct measurement and quantification of methane emissions. However, no comprehensive Federal research program exists to utilize methane detection technologies in order to gather more accurate data for oil and gas sector methane emissions.

**The Methane Emissions Research Act** would address this limitation by directing the Environmental Protection Agency (EPA) to measure and quantify methane emissions from specific oil and gas producing regions. The bill would create a pilot study as an initial one-time program, while requiring the agency to consider how the lessons of the pilot could be used to inform a recurring program on a national scale. Specifically, the bill would do the following:

- Direct EPA to conduct a two-year, measurement-based pilot study to quantify methane emissions from oil and gas infrastructure in two large oil and gas producing regions in the United States.
- Encourage EPA to utilize innovative methane measurement and quantification technologies during the implementation of the pilot study.
- Require EPA to submit a Report to Congress upon the conclusion of the pilot study that includes:
  - The findings of the pilot study.
  - An analysis of how the pilot study could be used to support the development of a comparable methane measurement and quantification research program encompassing all major oil and gas producing regions in the United States on a recurring basis.
  - An assessment of how the agency could utilize methane measurement and quantification activities to improve the quality of oil and gas sector methane data within Federal greenhouse gas inventories.
  - A description of any research gaps identified during the course of the pilot study.

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<sup>1</sup> <https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks>

<sup>2</sup> For example: <https://www.iea.org/reports/methane-tracker-2021> and <https://www.unep.org/resources/report/global-methane-assessment-benefits-and-costs-mitigating-methane-emissions>

<sup>3</sup> For example: <https://www.science.org/doi/10.1126/science.aar7204> and <https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2020JD034194>