

United States Senate  
WASHINGTON, DC 20510

July 29, 2020

The Honorable Gene L. Dodaro  
Comptroller General  
United States Government Accountability Office  
441 G Street, NW  
Washington, DC 20548

Dear Mr. Dodaro:

We request that the Government Accountability Office (GAO) conduct a comprehensive review of methane emissions from oil and gas development, including prevention capabilities, emission measurements, enforcement of emission regulations, and estimates of foregone royalties associated with vented, flared, and leaked methane from federal leases.

The International Energy Agency has reported that the single most important and cost-effective way oil and gas companies can combat climate change is reducing methane leaks.<sup>1</sup> Under the Clean Air Act, The U.S. Environmental Protection Agency (EPA) regulates emissions of air pollutants, including methane, and the Department of Interior's Bureau of Land Management (BLM) also regulates aspects of methane emissions from oil and gas development. Methane is a primary component of natural gas and a greenhouse gas, and as such, its presence in the atmosphere affects the earth's temperature and climate. According to the EPA, methane's impact on climate change is at least 25 times greater than that of CO<sub>2</sub> when averaged over a 100-year time period.<sup>2</sup> However, we do not have a clear picture of methane emissions in the United States. In 2018, *Science* published a study that measured methane emissions from the U.S. oil and natural gas supply chain, and estimated emissions to be approximately 60 percent higher than the measurement from EPA's Greenhouse Gas Inventory.<sup>3</sup> We are concerned that the U.S. government may be relying on methods to measure methane emissions that are outdated and require improvement.

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<sup>1</sup> IEA (2020), "The Oil and Gas Industry in Energy Transitions", IEA, Paris <https://www.iea.org/reports/the-oil-and-gas-industry-in-energy-transitions>

<sup>2</sup> EPA (2020) "Overview of Greenhouse Gases: Methane Emissions" <https://www.epa.gov/ghgemissions/overview-greenhouse-gases#methane>

<sup>3</sup> Alvarez, Ramón A., Daniel Zavala-Araiza, David R. Lyon, David T. Allen, Zachary R. Barkley, Adam R. Brandt, Kenneth J. Davis, et al. "Assessment of Methane Emissions from the U.S. Oil and Gas Supply Chain." *Science*. American Association for the Advancement of Science, July 13, 2018. <https://science.sciencemag.org/content/361/6398/186/tab-pdf>.

Under the Minerals Leasing Act of 1920, BLM must ensure that Federal oil and gas lessees prevent undue waste of those resources. In October 2010 and July 2016, GAO reported that Interior could take steps to better account for and manage methane emissions and issued several recommendations. Interior took steps to implement GAO's recommendations and in November 2016, issued regulations to reduce methane emissions. In 2017 and 2018, however, Interior postponed, suspended, and eliminated certain requirements that would have potentially addressed GAO's recommendations. Recently, EPA indicated that it would soon issue two related final rules on methane emissions for oil and gas, revising and/or rescinding large portions of the 2016 rules.

To better understand how methane emissions from the oil and natural gas industry impacts human health and the environment, it is imperative to have a firm understanding on how much methane is actually released into the air, during both normal and abnormal operations. Therefore, we are requesting that GAO conduct a study and issue a comprehensive report on methane emissions. In conducting such a study, we request that the Comptroller General consult with the appropriate federal agencies responsible for the regulation and oversight of methane emissions, industrial actors, state and local environmental protection organizations, researchers, and non-governmental organizations that specialize in greenhouse gas research to evaluate and make recommendations to produce a comprehensive and consistent approach to measuring methane emissions.

Further, while the COVID-19 economic downturn is widely expected to lead to a temporary decline in carbon dioxide emissions, it could have the opposite effect on methane emissions. Low prices for natural gas may mean that producers have less incentive to capture and sell natural gas, which is primarily methane, and vent it instead. Moreover, natural gas producers may put off fixing leaks because the cost of doing so exceeds the value of captured gas.

In addition to any relevant recommendations, we specifically request that GAO examine and report on the following:

1. How fugitive methane leaks are currently reported at the production and transportation phase and the state level;
2. Differences between reporting and royalty requirements on methane emissions, intentional and unintentional, on federal, state, and privately-owned lands;
3. What technology exists or is being developed to capture methane or reduce methane leaks during abnormal operations;
4. Estimate the associated decreases in methane emissions using available technologies;
5. Estimate the associated potential increases in federal royalty payments using available technologies to capture methane;

6. What research is being done to improve methane leak prevention, measurement, and response;
7. What technologies are used to measure methane emissions in both normal and abnormal operations;
8. Any regulatory suggestions to improve the U.S. Environmental Protection Agency's Greenhouse Gas Inventory;
9. To what extent, if any, methane emissions have increased during the COVID-19 economic slowdown; and
10. What ways public lands can be managed to better steward federal assets and support development of the methane capture industry.

We thank you for your attention to this important issue.

Sincerely,

ANGUS S. KING, JR.  
United States Senator

JOE MANCHIN III  
United States Senator

THOMAS R. CARPER  
United States Senator

MARIA CANTWELL  
United States Senator