



June 22, 2022

The Honorable Eddie Bernice Johnson  
Chairwoman  
Committee on Science, Space  
& Technology  
US House of Representatives  
2321 Rayburn House Office Building  
Washington, DC 20515

The Honorable Frank Lucas  
Ranking Member  
Committee on Science, Space  
& Technology  
US House of Representatives  
2321 Rayburn House Office Building  
Washington, DC 20515

Dear Chairwoman Johnson and Ranking Member Lucas,

The American Exploration and Production Council<sup>i</sup> (AXPC), a national trade association representing large independent oil and natural gas exploration and production companies in the United States, writes today to express our perspectives on the majority staff report entitled, “Seeing CH<sub>4</sub> Clearly: Science-Based Approaches to Methane Monitoring in the Oil and Gas Sector.”<sup>ii</sup>

The member companies of AXPC are providing affordable, reliable energy to Americans and the world and are committed to environmentally responsible and safe operations. We are proud of our role in helping author the American Shale Revolution, which has unlocked vast reserves of American natural gas, helping our nation reduce carbon dioxide emissions in the power generation sector by 32 percent since 2005.<sup>iii</sup>

Because methane is the primary constituent of natural gas, capturing methane is important to industry from an environmental and business standpoint. AXPC was the first national trade to support the federal regulation of methane,<sup>iv</sup> and wants to work collaboratively with the administration and Congress to achieve meaningful action to address climate change, including on the critical issue of methane.

Due to industry leadership and investment in new technologies, methane emissions from petroleum and natural gas systems fell from 1990-2019, even as production increased dramatically. Notably, AXPC member companies are members of The Environmental Partnership (TEP or The Partnership) – a collaboration of oil and natural gas companies that are committed to continuously improving the industry’s environmental performance by “taking action, learning about best practices and technologies, and fostering collaboration to responsibly develop our nation’s essential oil and natural gas resources.”<sup>v</sup>

**Seeing CH<sub>4</sub> Clearly - A Majority Staff Report**

The “Seeing CH4 Clearly” report underscores the need for government policy makers and our industry to work together to continuously reduce methane emissions. The report also highlights the need for regulatory flexibility for the use of emerging technologies.

While we wholeheartedly agree with those notions, the report itself is based on the flawed premise that leaks are not prioritized due to the lack of a definition and quantification of a “super-emitter.” The report makes allegations throughout and unfairly characterizes the industry’s essential contributions to the creation of advanced detection technologies and undermines the existence of the very collaboration the administration seeks to promote.

Our industry necessarily prioritizes compliance first and foremost, but unfortunately regulations today do not allow for use of emerging methane detection technologies to meet compliance requirements – which impedes broad-scale deployment. Still, because of the importance of this issue, our companies have not stopped at minimum compliance, but instead invested heavily in the evaluation, testing, development, and early utilization of more advanced technologies for leak detection and leak quantification. While driving these innovations forward, industry has similarly, reasonably prioritized finding and fixing leaks over measuring them, until such time as the development of field-reliable quantification technologies could be realized.

The report inaccurately claims that by not gathering data under a specific definition of “super emitters” companies are not committed to reducing large leaks, but this could not be further from the truth. Industry has spent nearly a decade – from an initial posture of envisioning possibilities to having realized many of them today – advocating for EPA regulations to provide greater flexibility to allow the use of emerging technologies that could find bigger leaks faster compared to the site-by-site on the ground surveys required today.

The industry has long promoted technology and innovation as the best near-term pathway for significant emission reduction and AXP member companies have invested significant time and resources in improving capabilities and practices for leak detection, repairs, and eventual quantification. As recent as the comments submitted this year for EPA’s November 2021 Methane proposal, we have pushed for the ability to use those technological advancements to meet compliance requirements and to be able to prioritize finding the larger leaks for greater efficiency in methane reduction.<sup>vi</sup> Although we understand the uncertainty in the ability to accurately quantify individual emission events utilizing advanced technologies, we acknowledge the usefulness in this data as it pertains to prioritization of response.

### **Leak Detection and Repair**

The report states that “oil and gas companies are failing to design, equip, and inform their Methane Leak Detection and Repair (LDAR) activities as necessary to achieve rapid and large-scale reductions in methane emissions from their operations.”

Though these technologies are rapidly evolving, there are still challenges to using current LDAR technologies to quantify methane from a particular area, especially in field applications.

Similarly, as noted in the report, these measurement technologies have wide margins for error, which is one of many reasons why most of them are still in pilot phases, far from the report's later – and conflicting – assertion that they have precise, accurate quantification ability and that deployment has been achieved at scale.

It has only been through partnership with industry, and largely funded by industry, that these technologies have been improving. The industry is committed to progressing these technologies so that they can someday quantify emission leak rates in the field in a way that could be reliable enough to be used more broadly across the industry.

### **Emissions Measurements**

The report attempts to differentiate between “accurate” and “precise” abilities to quantify methane emissions and undermine current inventories which are based on emission factors derived from source test data, material balance studies, and engineering estimates as prescribed by EPA's Greenhouse Gas Reporting Program (GHGRP). Notably, the initial version of the published report inaccurately referenced “megatons” as the unit for reported methane emissions, instead of “metric tons,” putting the company-specific emissions listed as off by a factor of a million. While the report was later corrected in an updated version, there was no acknowledgment of the change, nor an adjustment in the report's conclusions or recommendations, which were drawn from the data sourced to frame the report and present a problem that impacted the results' final conclusions.

As previously mentioned, the report assumes that precise quantification capabilities exist within these newer methane technologies, but also contradicts itself by saying that the lack of reliable measurement is one of the biggest gaps that exist.

While our industry recognizes how useful quantification measurements might be in LDAR, the development of that technology will take time, particularly as it moves from the laboratory to field applications. The technology must also yield results that are fully auditable, adding to the complexity of field applications.

In the meantime, we use all the data we have to address emissions on a daily basis and the lack of precise quantification is not a hinderance to finding leaks of any size. Trending data provided by these emission-factor based inventories have been a powerful tool to understand some of the greatest emission reduction opportunities in the sector and are still the most comparable inventories available today.

Even some of the recent state regulations touted by many Environmental Non-Government Organizations as the most aggressive, comprehensive methane regulations in the country stopped short of focusing only on “super-emitters” or mandating the use of leak quantification technologies. For example, in her testimony before the House Select Committee on the Climate Crisis, New Mexico Governor Lujan Grisham described the state's efforts and new rule, as it relates to the upstream:

“New Mexico cannot reach its GHG reduction goals without tackling methane pollution. Given that reality, we embarked on a conscientious and comprehensive approach to reduce those emissions. The result was a framework of nationally leading regulations.

“To ensure that we developed rules based on the best technical and scientific data available, NMED and EMNRD also jointly convened a Methane Advisory Panel (MAP).

“The group dove into the details of natural gas dehydration units, compressors and engines, and all aspects of technology related to leaks, venting, and flaring. Both agencies benefited from the MAP’s technical report which formed the basis for both departments’ rules.

**“These enforceable rules for new and existing sources apply to all wells, large or small, with appropriately scaled requirements. They encourage innovation by being technology-agnostic on emission controls and monitoring practices.”**

New Mexico policymakers realized that there is no one-size-fits-all approach to reducing emissions. Collaboration with industry on a flexible, technology-neutral approach, while recognizing the considerable industry contributions, is needed for advancing the reduction of methane and the field-testing and deployment of emerging technologies.

### **Best Practices**

The report fails to acknowledge that regulatory compliance is necessary. The fact that a company prioritizes regulatory compliance should not be faulted. Even still, AXP member companies often go above and beyond what is required for regulatory compliance and are working to ensure the forthcoming EPA methane rule incentivizes and allows for new and emerging technologies to meaningfully reduce emissions.

Similarly, companies develop and share best practices and technologies to continuously reduce emissions through voluntary coalitions such as The Environmental Partnership. In 2020, The Partnership collaborated with technology companies to advance the development and implementation of new methane detection technologies through substantive engagement with Colorado State University, Bridger Photonics, and NASA’s Jet Propulsion Laboratory Methane Source Finder team. TEP’s 2021 Annual Report cites the following statements from notable leaders in the methane technology space that speaks loudly to the significant role industry has voluntarily made in driving development of these solutions:

“We welcomed the opportunity to engage The Environmental Partnership and introduce our Gas Mapping LiDAR technology to companies that are participating in the program. It’s a fast-moving field and **the industry is really pushing the envelope to better understand and mitigate methane emissions.** We’re thrilled to work with them and be a part of the solution,” said Peter Roos, CEO, Bridger Photonics.

“Our methane research program has conducted numerous aerial remote-sensing surveys across the United States. The Partnership provided a platform to share our data with participating companies in the Permian basin to investigate and take steps to address emissions. **The collaboration provided us an opportunity to connect our efforts with the operators on the ground that would not exist otherwise,**” said Riley Duren, Research Scientist, U. Arizona; CEO, Carbon Mapper; Engineering Fellow, NASA Jet Propulsion Laboratory.

“Since its inception, The Environmental Partnership has been an active supporter of the efforts at our Methane Emission Technology Evaluation Center (METEC). **With the funding they provided, Colorado State University was able to secure a grant from the Department of Energy to advance the development of cutting-edge methane detection technologies.** We look forward to continuing this work and our engagement with the participating companies to test these technologies at their facilities in the field this year,” said Dan Zimmerle, Director of the Methane Emissions Technology Evaluation Center at Colorado State University’s Energy Institute.

Even outside of TEP, companies are actively collaborating on approaches and best practices that can help reduce emissions faster. For example, AXPC has hosted its own “technology forum” to share learnings for piloted technologies that allow us to find large leaks across a basin more efficiently. AXPC also conducts annual peer benchmarking surveys, including data such as emissions and trends, to help member companies continuously improve their operational performance.

### **Summary**

AXPC member companies are committed to providing affordable, reliable energy to America and the world, while continuing to meaningfully reduce emissions. We want to work collaboratively with the administration and Congress to address the critical issue of methane. We believe it is important that legislative and regulatory policy embraces the domestic energy industry, providing needed flexibility to encourage innovation, and enables meaningful solutions to achieve the dual goals of climate progress and providing energy security and prosperity to the American people. Consistent with our Climate Policy and Principles<sup>vii</sup>, AXPC believes federal methane policy should:

- Encourage innovation and flexibility, instead of overly prescriptive regulations that hinder the goal of reducing methane emissions;
- Allow and incentivize the development and deployment of technologies to monitor and mitigate methane emissions for compliance purposes;
- Appropriately quantify and assess the feasibility, costs and benefits of implementing new requirements for existing facilities;
- Avoid creating duplicative and overlapping regulatory regimes at the federal and state levels; and
- Properly interpret and follow the relevant provisions of the Clean Air Act.

Thank you for your consideration of this important issue.

Sincerely,



Anne Bradbury  
CEO  
American Exploration and Production Council

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<sup>i</sup> <https://www.axpc.org/who-we-are/>

<sup>ii</sup> [https://science.house.gov/imo/media/doc/science\\_committee\\_majority\\_staff\\_report\\_seeing\\_ch4\\_clearly.pdf](https://science.house.gov/imo/media/doc/science_committee_majority_staff_report_seeing_ch4_clearly.pdf)

<sup>iii</sup> <https://www.eia.gov/todayinenergy/detail.php?id=48296>

<sup>iv</sup> <https://www.houstonchronicle.com/opinion/outlook/article/Opinion-America-s-independent-oil-and-gas-15865139.php>

<sup>v</sup> <https://www.api.org/~media/Files/Policy/Environment/TEP/2021/The-Environmental-Partnership-2021-Annual-Report.pdf>

<sup>vi</sup> <https://www.regulations.gov/comment/EPA-HQ-OAR-2021-0317-0831>

<sup>vii</sup> <https://www.axpc.org/working-responsibly/climateprinciples/>