

Comments of Environmental Defense Fund at EPA's Public Hearing on Proposal to Reduce Methane Emissions from the Oil and Natural Gas Industry

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Good afternoon, my name is Edwin LaMair and I am a Legal Fellow at Environmental Defense Fund. We appreciate EPA convening these sessions and urge you to expeditiously finalize protective standards for new and existing sources that achieve deep cuts in climate-destabilizing and health-harming pollution. My testimony today will focus on the problem of fugitive emissions and the regulatory solutions.

We support EPA's proposed two-track leak detection and repair approach that allows operators to choose between optical gas imaging (OGI) or a combined advanced screening method and likewise support EPA moving forward with a community monitoring program that empowers communities and other third parties to use advanced technologies to further drive down pollution. Building from this foundation, we urge EPA to strengthen the traditional ground-based approach by ensuring that low-producing but high polluting wells are subject to regular monitoring requirements, which would not be required by the current proposal. Fugitive monitoring should be required at all sites with potentially significant emissions—this is critical for ensuring final rules protect frontline communities and meet the urgency of the climate crisis.

Over the last decade, research by EDF and others has documented and quantified the significance of methane emissions caused by oil and gas production and the persistent underestimation of fugitive and abnormal process emissions. Bottom-up approaches like the EPA inventory greatly underestimate emissions because they are based on assumptions that do not account for large events caused by malfunctions and other abnormal conditions.¹ Accounting for super-emitters can increase inventory estimates by 60-70%, underscoring the importance of quickly detecting and fixing major leaks.²

EPA's proposal to use site-level emission estimates based on actual equipment and component counts is an improvement from production-based classifications. However, as EPA has recognized, this approach assumes the effectiveness of control devices even though they are known to frequently fail. And, because large emission events are intermittent and difficult to predict, a one-time survey for smaller sites with these high-emitting equipment types will likely miss significant sources of pollution. To remedy these issues, EPA should account for equipment failures and super-emitters in site-level estimates and require routine monitoring at all sites with potentially significant emissions.³

¹ Rutherford et al., *Closing the gap: Explaining persistent underestimation by US oil and natural gas production-segment methane inventories*, Earth ArXiv (2021), <https://eartharxiv.org/repository/view/1793/>.

² Alvarez et al., *Assessment of Methane Emissions from the U.S. Oil and Gas Supply Chain*, 361 *Science* 186 (2018), <https://science.sciencemag.org/content/361/6398/186>.

³ Tyner & Johnson, *Where the Methane Is—Insights from Novel Airborne LiDAR Measurements Combined with Ground Survey Data*, 55 *Env. Sci. Tech.* 9773 (2021), <https://pubs.acs.org/doi/pdf/10.1021/acs.est.1c01572>; Lyon

Hundreds of thousands of wells across the country generate just a trickle of usable product but are large and disproportionate emitters of methane.⁴ According to EDF research in the Permian Basin, nearly half of observable production site methane emissions are from low-producing well sites. Nationwide, pollution from these low-producing wells destabilizes the climate and harms the health of the more than seven million people that live nearby, including nearly half a million children and nearly two million people of color. EDF analysis shows that more than three-quarters of marginal wells are owned by companies that operate more than one hundred wells and generate hundreds of millions in gross revenue each year. Without regular inspections, these smaller sites could emit pollution into the atmosphere and nearby communities without detection for years.

We support EPA's proposal to offer an advanced monitoring alternative in combination with annual OGI inspections, which are still necessary to detect smaller persistent leaks. Advanced monitoring solutions are highly cost-effective and can be used to cover broad geographic areas frequently, leading to efficient reductions. EPA should consider allowing a broader variety of screening and continuous monitoring technologies at different frequencies if equivalent emission reductions can be demonstrated.

Finally, we strongly support EPA moving forward with a community-based monitoring program and urge the Agency to finalize standards that allow citizens to detect and report leaks. As methane monitoring systems become cheaper and more widely available, more groups, including scientists, NGOs, state agencies, and citizen groups, will be able to monitor for emissions. Incorporating this data into regulatory frameworks will improve outcomes, increase accountability, and lead to greater reductions.

Thank you for all of your work on this critically important issue. We look forward to continuing to engage with EPA throughout the stakeholder process and appreciate your commitment to issuing a supplemental proposal to address important outstanding emission reduction opportunities. We respectfully urge you to swiftly finalize protective standards that substantially reduce methane emissions in a manner that protects communities and helps to address the climate crisis.

et al., *Aerial surveys of elevated hydrocarbon emissions from oil and gas production sites*, 50 Env. Sci. Tech. 4877 (2016), <https://pubs.acs.org/doi/10.1021/acs.est.6b00705>; Zavala-Araiza et al., *Toward a Functional Definition of Methane Super-Emitters: Application to Natural Gas Production Sites*, 49 Env. Sci. Tech. 8167 (2015), <https://pubs.acs.org/doi/10.1021/acs.est.5b00133>; EDF, *Permian Methane Analysis Project*, <https://data.permianmap.org/pages/operators>.

⁴ EDF, *Marginal Well Factsheet* (2021), https://www.edf.org/sites/default/files/documents/MarginalWellFactsheet2021_0.pdf.