

## Comments of Environmental Defense Fund at EPA's Public Listening Sessions on Upcoming Oil and Natural Gas Methane Rulemaking

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Good afternoon, my name is Rosalie Winn and I am a Senior Attorney on the U.S. Clean Air Team at Environmental Defense Fund. As my colleague Edwin LaMair discussed, EDF strongly supports EPA action to set protective standards for new and existing sources across the oil and natural gas sector. EDF analyses show that ambitious standards could cut up 9.2 million metric tons of methane by 2025, equivalent to the pollution of driving 170 million cars for one year. I'd like to take this time to highlight several key opportunities for cutting methane and local air pollution from the sector.

First, most methane emissions from the oil and gas sector result from leaks and unintentional releases caused by equipment failures.<sup>1</sup> These are often referred to as “fugitive” and “abnormal process” emissions. “Super-emitter” events—where a malfunctioning component or high-volume leak releases methane in much greater quantities than a typical fugitive leak—occur intermittently and represent around 50% of the sector’s total methane emissions.<sup>2</sup>

Fugitive leaks and super-emitters can be detected and stopped through a robust leak detection and repair program that applies to upstream and downstream sources.<sup>3</sup> This program should retain traditional monitoring to detect smaller, widespread component leaks. But it should also incorporate widely available advanced monitoring techniques, such as aerial surveys. Advanced monitoring can be conducted frequently across large areas at low cost to capture major leaks and allow for timely repairs.<sup>4</sup> This type of monitoring is crucial for dealing with the problem of super-emitters and is already being deployed by some leading operators.

Importantly, marginal or low production wells leak at similar rates to other wells. The last Administration’s exemption from monitoring at these wells was not guided by science or grounded in data. Moreover, recent analyses show that most marginal wells are actually owned

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<sup>1</sup> 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/>.

<sup>2</sup> Omara et al., *Methane Emissions from Natural Gas Production Sites in the United States: Data Synthesis and National Estimate*, 52 Env. Sci. Tech. 12915 (2018), <https://pubs.acs.org/doi/10.1021/acs.est.8b03535>.

<sup>3</sup> Super-emitters exist across segments, including production, gathering, and processing, and can result from expected activity like venting and liquids unloadings, as well as leaks and malfunctions, like pipeline leaks and unlit flares. Accounting for emissions from leaks and malfunctions could increase EPA’s oil and gas methane emission inventory by as much as 60%. Cusworth et al., *Intermittency of Large Methane Emitters in the Permian Basin*, Env. Sci. Tech. Letters (2021), <https://pubs.acs.org/doi/pdf/10.1021/acs.estlett.1c00173>.

<sup>4</sup> Kemp & Ravikumar, *New Technologies Can Cost Effectively Reduce Oil and Gas Methane Emissions, but Policies Will Require Careful Design to Establish Mitigation Equivalence*, \_\_ Env’tl. Sci. Tech. \_\_ (2021), <https://pubs.acs.org/doi/abs/10.1021/acs.est.1c03071>.

by large operators.<sup>5</sup> Accordingly, we urge EPA to eliminate the low-production well exemption. Ensuring broad-based coverage of significant emitting sources, including marginal wells, is supported by the latest data and can help to promote clarity and enhance compliance with the standards.<sup>6</sup>

Second, EPA should require zero-emitting pneumatic controllers and pumps at all new sources and retrofits at existing sources. Zero-bleed pneumatics are widely available and cost-effective. Colorado<sup>7</sup> has adopted and New Mexico<sup>8</sup> has proposed standards for zero-bleed pneumatics that were broadly supported and EPA can build from them in developing protective federal rules.

Third, unlit and malfunctioning flares are another large source of methane, and even properly functioning flares emit carbon dioxide and hazardous pollution while simply wasting a valuable resource. Capturing natural gas that would otherwise be lost through venting and flaring is feasible and generates additional revenue for operators. EPA should propose and adopt protective standards that reduce or eliminate the practice of routine flaring. Leading states like New Mexico and Colorado are already taking steps to do this, with broad support from the industry.<sup>9</sup>

Fourth, unplugged abandoned wells are a significant source of emissions,<sup>10</sup> pose a threat to public safety, and impose substantial clean-up costs on taxpayers and states. EPA's next generation standards can be designed to prevent wells from becoming improperly abandoned or orphaned. Accordingly, we respectfully urge EPA to ensure that the standards include requirements to minimize or eliminate emissions from wells once they have reached the end of their productive life.

Finally, compliance data must be reported in real time, electronically, and in an easy-to-use, publicly available format. We likewise encourage EPA to consider how it can use the ever-increasing publicly available methane data to further promote transparency and ensure public confidence in the clean air measures EPA adopts.

Innovative, ambitious, and transformative standards will reduce pollution while saving operators money and creating jobs. The methane mitigation industry offers well-paying

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<sup>5</sup> Analyses show that 75% of companies operate 25 wells or less, but own just 6.1% of total wells, 7.9% of marginal wells, and 9.2% of the lowest producing wells (less than 6 BOE/day). *Marginal Well Factsheet*, EDF (2021).

<sup>6</sup> See Cynthia Giles, *Next Generation Compliance: Environmental Regulation for the Modern Era*, Harvard Law School Environmental & Energy Law Program (April 13, 2021), <https://eelp.law.harvard.edu/2020/09/next-generation-compliance-environmental-regulation-for-the-modern-era/>.

<sup>7</sup> 5 Colo. Code Regs. § 1001-9, Pt. D, § I.V. (2021), [https://drive.google.com/file/d/1sCtcjhhaexdE0\\_K-fvrFudgO0vMuYis\\_/view](https://drive.google.com/file/d/1sCtcjhhaexdE0_K-fvrFudgO0vMuYis_/view).

<sup>8</sup> See New Mexico Environmental Improvement Board, Proposed N.M. Code R. § 20.2.50.122 (May 6, 2021), <https://www.env.nm.gov/air-quality/wp-content/uploads/sites/2/2018/08/Proposed-Part-20.2.50-May-6-2021-Version.pdf>.

<sup>9</sup> Jon Goldstein, *New Mexico Steps Up to End Routine Venting and Flaring*, EDF (March 25, 2021), <https://www.edf.org/media/new-mexico-steps-end-routine-venting-and-flaring>.

<sup>10</sup> Williams et al., *Methane Emissions from Abandoned Oil and Gas Wells in Canada and the United States*, 55 Env. Sci. Tech. 563 (2020), <https://pubs.acs.org/doi/10.1021/acs.est.0c04265>.

employment opportunities across the country, saves money by minimizing waste, and keeps an otherwise lost product in the pipe.<sup>11</sup>

Right now, EPA has an unparalleled opportunity to seize on available, cost-effective solutions that have been effectively deployed by states and leading companies to achieve deep reductions in methane emissions in all communities across the country. We thank EPA for convening these important listening sessions and considering our views and we respectfully urge EPA to propose and adopt the strong and protective standards to safeguard public health and the climate.

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<sup>11</sup> See Datu Research, *Find, Measure, Fix: Jobs in the U.S. Methane Emissions Mitigation Industry* (2021).