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Written Testimony of Fred Krupp, President, Environmental Defense Fund

Chairman Whitehouse, Ranking Member Grassley and members of the Committee, I'm Fred Krupp, President of the Environmental Defense Fund (EDF). One of the world's leading international nonprofit organizations, EDF creates transformational solutions to the most serious environmental problems. To do so, EDF links science, economics, law, and innovative private-sector partnerships. With more than 3 million members and supporters, EDF's experts are working in 28 countries and across the U.S. to turn our solutions into action. Thank you for the opportunity to testify today.

The Inflation Reduction Act (IRA) is the most comprehensive Congressional action taken to date to address the climate crisis. This landmark legislation puts the U.S. on a path to achieve the Biden Administration's goal of cutting greenhouse gas emissions in half by 2030 and reaching net zero emissions by 2050. With the inclusion of the Methane Emissions Reduction Program (MERP) in the IRA, Congress acknowledged the major role that oil and gas methane emissions have played in causing the climate crisis, as well as the need to significantly reduce methane emissions from this sector to reach the Administration's climate goals. Congress thus established a new provision in the Clean Air Act—section 136—which provides EPA with \$1.55 billion to reduce methane emissions and establishes a methane-waste emissions charge applicable to oil and gas facilities.¹

House Republicans' plan to tie passage of the debt ceiling increase to the repeal critical IRA programs threatens our economy, public health and the clean energy future. Other damaging provisions in the House-passed bill include: inclusion of the dangerous REINS Act which would obstruct the federal government from carrying out actions mandated by Congress; inclusion of permitting reform designed to rush through projects without fair consideration of their impacts on the environment, public health and on communities; repeal of the Greenhouse Gas Reduction Fund which will deprive disadvantaged communities of the opportunity to reduce the harmful pollution that threatens their wellbeing; elimination of two fundamental safety protections for new chemicals provided by Congress in the overwhelmingly bipartisan TSCA reform law of

¹ 42 U.S.C. § 7436.

2016 which put public health at risk; and elimination of the Climate Pollution Reduction Grants to states and cities across the country which will impede their actions to clean the air and stabilize the climate.

I will focus my oral testimony on the benefits of the MERP provision which illustrates well the tremendous opportunities to our country and to the planet from smart, cost-effective policies in the IRA that would be at risk under the House-passed bill.

Cutting Methane Emissions Cuts Energy Waste and Reinforces U.S. Energy Security

Methane is the main component of natural gas, making it a valuable energy resource. U.S. companies currently waste enough methane to meet the annual needs of more than 12 million households.² Operators prioritizing rapid development of oil will often flare, or burn, excess gas despite widely available, and often profitable, options to capture and use or sell the gas—some as simple as increasing coordination between producers and pipeline operators. In other instances, producers vent gas or leak it freely into the atmosphere unburned. Even when solutions to flaring, venting, and leakage are profitable, operators often forgo them because they can earn higher rates of return on other investments, like developing new oil projects.

At a time of uncertainty and instability in global energy, allowing companies to waste this valuable energy resource is unconscionable. Analysis from S&P Global Commodity Insights shows that North America is wasting more than 50 billion cubic meters of gas annually through venting, leaks and flaring.³ This amounts to roughly a third of the gas Europe was importing from Russia prior to the invasion of Ukraine and could be brought to our allies without the need for additional LNG export capacity beyond what's already in operation or under construction.

Reducing Methane Protects Public Health and Helps Address Climate Change

In addition to stopping the needless waste of energy resources, reducing oil and gas methane emissions protects communities' health and is the fastest, most cost-effective way to immediately slow our current rate of global warming.

Human-made emissions of methane – a greenhouse gas over 80 times more powerful than CO₂ in the near-term – drives about 30% of current global warming. Peer-reviewed science shows

² EDF calculation based on statistics from the Energy Information Agency on natural gas consumption and number of residential consumers. <https://thehill.com/opinion/energy-environment/3491442-biden-can-make-good-on-eu-gas-supply-and-climate-pledges-by-ending-methane-leaks/>.

³ S&P Global Commodity Insights, *Levers for capturing methane emissions to improve gas availability* (Dec. 2022), https://cdn.ihsmarkit.com/www/pdf/1222/EDF---Executive-Summary---Levers-for-capturing-flared-gas-and-methane-emissions.pdf?utm_source=PR&utm_medium=Social&utm_campaign=ET_Consulting_Study.

swift cuts in methane across sectors, including oil and gas, could slow our current rate of warming by 30%.⁴

Oil and gas is the largest industrial source of methane in the U.S., and companies currently emit at least 13 million metric tons of methane annually.⁵ That much methane has a greater near-term climate impact than over 200 million cars driven for a year.⁶

Other pollutants, such as cancer-causing benzene and smog-forming volatile organic compounds (VOCs), are also emitted alongside methane. Reducing methane leaks is important for safeguarding the health of the roughly 10 million Americans living within a half mile of an active oil or gas site.⁷

Charge On Excess Methane Waste is Vital Incentive to the Industry to Cut Pollution

A primary pillar of MERP is its charge on excessive methane emissions from U.S. oil and gas facilities. The charge provides a strong incentive to cut pollution – many operators will choose to reduce their emissions by minimizing leaks and replacing equipment rather than pay for excessive emissions.

The charge starts in 2024 at \$900/ton of methane and increases over time to \$1500/ton by 2026. It only applies to emissions from large operators, reporting over 25,000 metric tons of carbon dioxide equivalent emissions in a region annually, and that also exceed commonly used emissions intensity thresholds that are consistent with industry’s own pollution targets.⁸ By cutting their emissions, operators can fall below the thresholds and avoid the charge.

MERP also includes \$1.55 billion in funding to reduce methane emissions – funding to state and tribal agencies, communities, and producers themselves that would be eliminated if this program is repealed. For example, the law provides that these funds can be used for air pollution monitoring, plugging end-of-life wells, researching and applying new methane mitigation technologies, and improving reporting and estimates of oil and gas emissions.

⁴ Ocko et al., *Acting rapidly to deploy readily available methane mitigation measures by sector can immediately slow global warming*, 16 *Env. Research Letters* 054042 (2021), <https://iopscience.iop.org/article/10.1088/1748-9326/abf9c8>.

⁵ 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>.

⁶ EDF, *Understanding the Near- and Long-Term Impacts of Emissions*, <https://blogs.edf.org/climate411/2022/09/09/edfs-new-calculator-shows-the-dire-impact-of-methane-pollution/>.

⁷ Proville et al., *The demographic characteristics of populations living near oil and gas wells in the USA*, 44 *Population & Environment* 1-14 (2022), <https://link.springer.com/article/10.1007/s11111-022-00403-2>.

⁸ See OGCI, *OGCI’s 2025 Methane Intensity Target*, <https://www.ogci.com/action-and-engagement/reducing-methane-emissions/#methane-target>.

Companies, Including Smaller Operators, Have the Technology and Support to Fix the Problem

Methane mitigation is overwhelmingly cost-effective and represents just a small fraction of the record profits oil and gas companies have experienced in recent years. Exxon and Chevron alone brought in a combined \$90 billion in profit in 2022, buoyed by high oil prices. In fact, methane pollution reductions can add to the bottom line of operators who sell the otherwise-wasted gas they capture. The cost-effectiveness of methane mitigation has grown steadily over time, as innovations in monitoring and mitigation technologies have helped further improve the cost-effectiveness of detecting and preventing methane emissions.

Peer-reviewed research has found that lower-producing but high polluting wells are disproportionate emitters of methane responsible for roughly half of methane emissions from U.S. well sites. These high-polluting wells contribute only 6% of total U.S. oil and gas production.⁹ And a large majority of these wells (more than 75%) are owned by large companies that reported revenues in excess of \$300 million.¹⁰ These companies have the resources to cut methane waste.

Because the charge only applies to operators of large facilities with major emissions, smaller companies may not in fact be subject to the charge. For instance, an independent operator with low-producing wells within a particular basin may be exempt from the charge.

MERP also sets aside \$700 million specifically to assist marginal conventional wells with emissions reduction.

Cutting Methane Stimulates Economic Growth

In addition to stopping the unnecessary waste of energy resources, keeping more product in pipelines and out of the atmosphere, both the charge on methane waste and funding under MERP will support job creation in the growing methane mitigation industry.

The methane mitigation industry provides the goods and services needed to help companies measure and reduce their emissions. The industry has nearly doubled in size since 2017 and is made up of over 200 companies in over 750 locations nationwide.¹¹ More than 75% of these firms expect to create additional jobs with strong methane policies in place.¹²

Jobs in the methane mitigation industry are high-paying – 10% more than the national average salary – and they can't be offshored.¹³

⁹ Omara et al., Methane emissions from US low production oil and natural gas well sites, 13 Nat. Comm'n 2085 (2022), <https://www.nature.com/articles/s41467-022-29709-3>.

¹⁰ EDF et al., Comments on Proposed OOOOb and OOOOc at 37 (Feb. 2023), <https://blogs.edf.org/climate411/files/2023/02/Joint-Environmental-Comments-on-EPA-Supplemental-Methane-Proposal.pdf>.

¹¹ Datu Research, *Find, Measure, Fix: Jobs in the U.S. Methane Emissions Mitigation Industry* (2021), <https://www.edf.org/sites/default/files/content/FindMeasureFixReport2021.pdf>.

¹² *Id.*

¹³ *Id.*

Real-World Data Collection on Methane is Vital to Fix the Problem

The MERP provisions also include important provisions around measurement and verification of methane emissions. EPA's current method of quantifying methane emissions is based on emissions factors that don't accurately reflect today's oil and gas industry production, practices, and equipment. Numerous studies have found that observed methane emissions are significantly higher than current EPA estimates. A comprehensive study released in 2018 found emissions to be 60% higher than EPA figures.¹⁴

To ensure that we have durable and effective solutions it is vitally important to accurately understand the magnitude and source of the problem.

MERP takes important steps to address this issue by directing and providing funds for EPA to update the Greenhouse Gas Reporting Program to incorporate empirical measurement data to ensure emissions estimates and MERP's waste charge accurately reflect total methane emissions from oil and gas facilities.

MERP is an Important Complement to the EPA Rules

MERP complements and reinforces methane standards being developed by EPA. Each tool plays an important role in tackling methane pollution.

Strong and comprehensive pollution standards from EPA are needed to ensure protective, broad and equitable pollution reductions for all communities. Meanwhile, a charge on especially wasteful levels of methane emissions further discourages pollution and holds companies accountable for their impact. MERP recognizes the importance of EPA methane regulations and contains an exemption from the charge for companies in compliance with protective methane standards. Congress was right to enact it, public health and the environment will benefit from it, and it should be left in place to do its job.

¹⁴ 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>.