Investor Call for Ambitious Federal Methane Regulation for the Oil and Gas Industry

Summary Backgrounder for Signatories

Investor statement and current list of signatories are accessible <u>here</u>. A more detailed background memo is available for signatories <u>here</u>.

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Why regulate methane emissions?

The challenge: Emissions of methane from the oil and gas industry pose significant risks the economy and the financial system.

The opportunity: Methane regulation offers a cost-effective opportunity to mitigate climate risk from the oil and gas industry as a first step towards deeper decarbonization:

Existing technologies for this sector can significantly reduce methane emissions at **no net cost.** Methane emissions reductions of 65% below 2012 levels by 2025 are feasible using today's available technologies. Lack of regulatory action may **risk US operators' access to global export markets** as companies and governments impose standards aligned to a net zero economy.

Industry leaders support the need for regulation and recognize that lack of voluntary action from individual players risks the industry's social license to operate.



Despite voluntary measures, the oil and gas industry is a major source of methane pollution

Oil and gas industry methane continues to be a major contributor to climate change...



Methane is a powerful greenhouse gas from natural and manmade sources, contributing to **25%** of warming seen today



The oil and gas industry is the largest industrial source contributing to **30%** of U.S. methane emissions

A Dallas Federal Reserve survey <u>found</u> only **36%** of Texas firms surveyed had plans to reduce methane ...and scientific research suggests U.S. emissions remain far from achieving industry targets

Methane intensity (emissions / natural gas produced)





Source: EDF analysis, data is from IPCC AR5 WGI 2013 Chapter 8 SM, Table 8.SM.6, the calculation is corroborated by climate model simulations; EPA Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2018; EDF Synthesis paper Alvarez et al 2018. Zhang et al 2020. based on over 400 site-level measurements from 6 basins. Permian Basin assessment based on PermianMAP initiative and 2018/19 TROPOMI satellite observations.

But cost-effective solutions to methane emissions are readily available



IEA <u>estimates</u> that **40%** of global oil and gas methane emissions could be mitigated at no net cost (at 2019 prices)



Barclays Equity research found the average cost to reduce US upstream methane emissions is only **\$20/MTCO₂e**, far less than the average cost of other de-carbonization strategies.



BP's U.S. division <u>reports</u> using the latest technology to conduct regular leak detection and repair at a cost of just **\$40** per well. "The regulations are common sense, cost effective and help continue to reduce fugitive methane emissions across the nation."

Paul Ulrich, Jonah Energy

"There is a clear business case for [federal methane regulation]" because "the more gas we keep in our pipes and equipment, the more we can provide to the market."

Susan Dio, former President, **BP America**



Methane policy offers a first step towards deeper oil and gas industry decarbonization

Net zero is becoming the norm for industry, financial stakeholders and policy makers...



Net zero across bp's operations by 2050



Net zero economy-wide by 2050; 50% cuts by 2030



All <u>six major US banks</u> committed to net zero financed emissions

...robust methane policy can help mitigate **short-term risk** across US industry on the path towards net zero

- Regulations offer a baseline of performance for the thousands of individual US producers
- Emerging <u>satellite technology</u> will soon bring new levels of emissions transparency globally
- As the EU <u>considers</u> methane regulations, potentially addressing gas imports, unmitigated emissions could <u>limit US access</u> to global export markets



Broad coverage of emission sources with frequent monitoring is critical

A wealth of scientific research has shown ...

As a result the profile of these emissions events indicates...



Sources of methane emissions are diffuse, occurring across sites and operators



Large, episodic sources dominate emissions of methane, including from...

- Malfunctioning flares
- Large super-emitter events
- Small, marginal and inactive wells



Targeted mitigation could achieve results quickly



Frequent monitoring required to catch large emissions events



Coverage of all sources such as marginal wells is also critical

Leveraging available technologies to address new and existing oil and gas methane emissions can reduce emissions to at least <u>65% below 2012 levels</u> by 2025.



Methane has significant climate, public health, environmental justice and safety impacts

Climate and environmental impacts

- Methane emissions are <u>84x</u> more potent than CO₂ over 20 years.
- Methane reduces the climate benefit of natural gas compared to coal.
- Existing technologies could reduce methane emissions from the oil and gas sector by 65% below 2012 levels by 2025.

Public health and environmental justice impacts

- Methane is released alongside toxic air pollution (VOCs, ozone, smog).
- It worsens respiratory diseases. Increases risk of heart diseases and attacks.
- This pollution disproportionately impacts poor, rural and POC communities.

Safety risks

- Workers' are exposed to oxygen-deficient atmospheres and to inhalation of concentrated petroleum hydrocarbon gases and
- vapors.
 There is risk of <u>fires and</u> <u>explosions</u>.



Industry voices across the supply chain support methane regulations

Industry voices large and small across the supply chain support methane regulations



"Our experience has shown that companies can cost-effectively mitigate emissions, and EPA can design reasonable regulations that reduce emissions quickly while being flexible enough to enable promising technologies to come on line. "

ExxonMobil comments to EPA



A strong investor voice is a necessary policy advocacy intervention

A broad chorus of voices, from industry and the financial sector, can help support ambitious and timely recommendations for methane policy that will:

- Ensure an impactful scope of coverage
- Drive rapid detection of emissions
- Leverage and advance technology innovations

Investors can support this advocacy by emphasizing that methane emission reductions can help the finance community manage climate risk and reach net zero financed emissions.



Regulatory Policy Overview and Timeline

The Biden administration is poised to issue two key EPA regulations addressing methane...

111(b) "new and modified" sources rule

This rule would reinstate coverage of newer oil and gas facilities, rolled back by the Trump administration

111(d) "existing sources" rule

This rule would extend EPA regulation to older facilities, not previously covered by regulation

... these rules are expected to be proposed in September and finalized by Fall 2022

Executive Order

Jan 20, 2021: Biden issues day one <u>Executive Order</u> directing EPA to begin rulemaking on methane emissions

Proposed Rules

Sep 2021: EPA expected to issue proposed rules for both new and existing sources, opening 60+ day comment period

Final Rules

Fall 2022: Final rules expected to be issued by EPA



Thank you for <u>signing-on</u> by April 28th.

The statement will be submitted to the Biden Administration on May 3rd.

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