

New Mexico's Methane Problem

Reducing oil and gas methane emissions will benefit New Mexico Communities

Natural gas is primarily methane, a colorless odorless greenhouse gas that can escape undetected from hundreds of thousands of different sources across the natural gas supply chain---from the well pad to processing facilities, to pipelines and everywhere in between.

Every year the industry leaks millions of tons of methaneⁱ and other dangerous pollutants into the air. These emissions could be cut in half by implementing cost-effective tools and technologies.ⁱⁱ

But uncontrolled, these emissions represent the waste of an important energy resource, deteriorate air quality and increase our rate of global warming. National efforts to reduce these emissions are critically important.

A wasted New Mexico resource

- In 2014 New Mexico's oil and gas producers reported wasting more than **180,000 metric tons of methane**ⁱⁱⁱ - enough to heat more than **168,000 homes** each year.^{iv}
- This lost methane also represents lost royalties to taxpayers. A recent report suggests New Mexico taxpayers have lost out on over **\$42.7 million in royalty revenue** since 2009.^v

Impacts to health and environment

- Methane is responsible for about **a quarter of the global warming** we are already experiencing.^{vi}
- Over the next two decades, methane will trap **80 times more heat** in the atmosphere than the same amount of carbon dioxide.^{vii}
- Methane escapes with other pollutants that can increase **ground level ozone** and impact public health.^{viii}

Broad agreement for New Mexico to act on methane

In 2014, New Mexico made headlines when NASA discovered giant methane "hotspot" the size of Delaware over New Mexico's San Juan Basin--- **the highest concentration of methane in the nation**^{ix}. Since then, momentum has been building to take action on New Mexico's methane emissions.

- December 2014: The **Western Governors' Association issued a resolution** about the importance of regulating oil and gas methane emissions.^x
- January 2015: New Mexico State Senator Benny Shendo sponsors **Senate Memorial 29** to establish a task force to study the economic and environmental impact of venting and flaring gas in New Mexico.^{xi}



Photo credit: Earthworks

- July 2015: U.S. Senators Tom Udall and Martin Heinrich joined U.S. Representatives Ben Ray Lujan and Michelle Lujan Grisham in sending **a letter to the White House** urging the EPA and BLM to address the methane emissions.^{xii}
- September 2015: **New Mexico Governor Susana Martinez** included a commitment to methane emission reductions in **New Mexico's Energy Policy and Implementation Plan**.^{xiii}

"The good news is that we can cost-effectively address waste and inefficiencies in New Mexico's oil and gas industry and actually grow and strengthen our state economy."

- Erin Sanborn, Executive Director, Partnership for Responsible Business, New Mexico^{xiv}

National efforts to reduce methane will benefit New Mexico

The U.S. Environmental Protection Agency (EPA) recently proposed methane emission limits for new and modified sources in the oil and gas industry, and the Bureau of Land Management (BLM) is expected to issue standards to cut wasteful venting, flaring and leaks on federal and tribal lands in the coming months. These actions will be critical for helping New Mexico maintain its energy economy while reducing harmful air pollution and unnecessary waste.

- The US oil and gas industry is the leading industrial source of methane pollution. If action isn't taken, emissions are projected to **increase 25%** over the next decade.^{xv}
- Emissions from New Mexico's federal and tribal lands remains largely unmanaged--- the gas wasted each year is valued at **more than \$100 million**,^{xvi} and could be recaptured and brought to market with strong venting and flaring rules from BLM.
- New Mexico is home to **11 companies** that specialize in methane mitigation.^{xvii} Policies that require drillers to use these tools and services could bolster this growing industry and provide **highly skilled, good-paying jobs** to New Mexico.

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- ⁱ Methane emissions from natural gas and petroleum systems were equal to 182.6 mmt CO₂e in 2013, according to EPA's Inventory of U.S. Greenhouse Gas Emissions and Sinks. <http://www.epa.gov/climatechange/Downloads/ghgemissions/US-GHG-Inventory-2015-Main-Text.pdf>. Using the global warming potential (GWP) of 25 this is equal to 7.304 mmt of CH₄. This potential is used by EPA based on IPCC's AR5 report.
- ⁱⁱ Waste Not report, from Clean Air Task Force et al. <http://catf.us/resources/publications/files/WasteNot.pdf>
- ⁱⁱⁱ <http://www2.epa.gov/ghgreporting> Data from Subpart W GHG Reported Data. Emissions allocated to each state based on percentage of production from each basin in the states.
- ^{iv} Average gas use per household in New Mexico calculated using number of natural gas consumers by state, EIA website http://www.eia.gov/dnav/ng/NG_CONS_NUM_A_EPGO_VN4_COUNT_A.htm and natural gas consumption in New Mexico: http://www.eia.gov/dnav/ng/ng_cons_sum_dc_u_snm_a.htm.
- ^v Western Values project report: Up In Flames: Taxpayers Left Out in the Cold as Publicly Owned Natural Gas is Carelessly Wasted <http://westernvaluesproject.org/wp-content/uploads/2014/05/Up-In-Flames.pdf>
- ^{vi} EDF calculation based on [IPCC AR5](#) WGI Chapter 8.
- ^{vii} IPCC AR5 p. 714 https://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1AR5_Chapter08_FINAL.pdf
- ^{viii} EPA, Basic Information, Emissions from the Oil & Natural Gas Industry <http://www3.epa.gov/airquality/oilandgas/basic.html>
- ^{ix} NASA Press Release "U.S. Methane 'Hot Spot' Bigger than Expected" http://science.nasa.gov/science-news/science-at-nasa/2014/09oct_methanehotspot/
- ^x Western Governors' Association, Policy Resolution 2015-02, Methane Emissions Regulation http://westgov.org/images/RESO_Methane_15-02.pdf
- ^{xi} Text of Senate Memorial 29 <http://www.nmlegis.gov/Sessions/15%20Regular/memorials/senate/SMO29.HTML>
- ^{xii} Press release "NM Lawmakers Call on Administration to Curb Natural Gas Waste Causing Methane Hot Spot Over San Juan Basin" http://www.tomudall.senate.gov/?p=press_release&id=2046
- ^{xiii} New Mexico Energy Policy & Implementation Plan 2015, p.30 http://www.emnrd.state.nm.us/EnergyPolicy/documents/EMNRD_EnergyPolicy.pdf
- ^{xiv} Op-ed in Albuquerque Journal "Industry should curb waste of methane gas" Published 7/1/15 <http://www.abqjournal.com/606494/opinion/industry-should-curb-waste-of-methane-gas.html>
- ^{xv} White House fact sheet: <https://www.whitehouse.gov/the-press-office/2015/01/14/fact-sheet-administration-takes-steps-forward-climate-action-plan-anno-1>
- ^{xvi} EDF calculation based on ICF International report: Onshore Petroleum and Natural Gas Operations on Tribal and Federal Lands in the United States https://www.edf.org/sites/default/files/content/federal_and_tribal_land_analysis_presentation_091615.pdf
- ^{xvii} Datu Research report: "The Emerging U.S. Methane Mitigation Industry" https://www.edf.org/sites/default/files/us_methane_mitigation_industry_report.pdf