

METHANE EMISSIONS

CONTROVERSIAL ISSUES IN THE NEWS



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WASHINGTON DC



CENTRAL QUESTION



Should the Trump administration repeal rules that restrict methane emissions by oil and natural gas companies?

INTRODUCTION



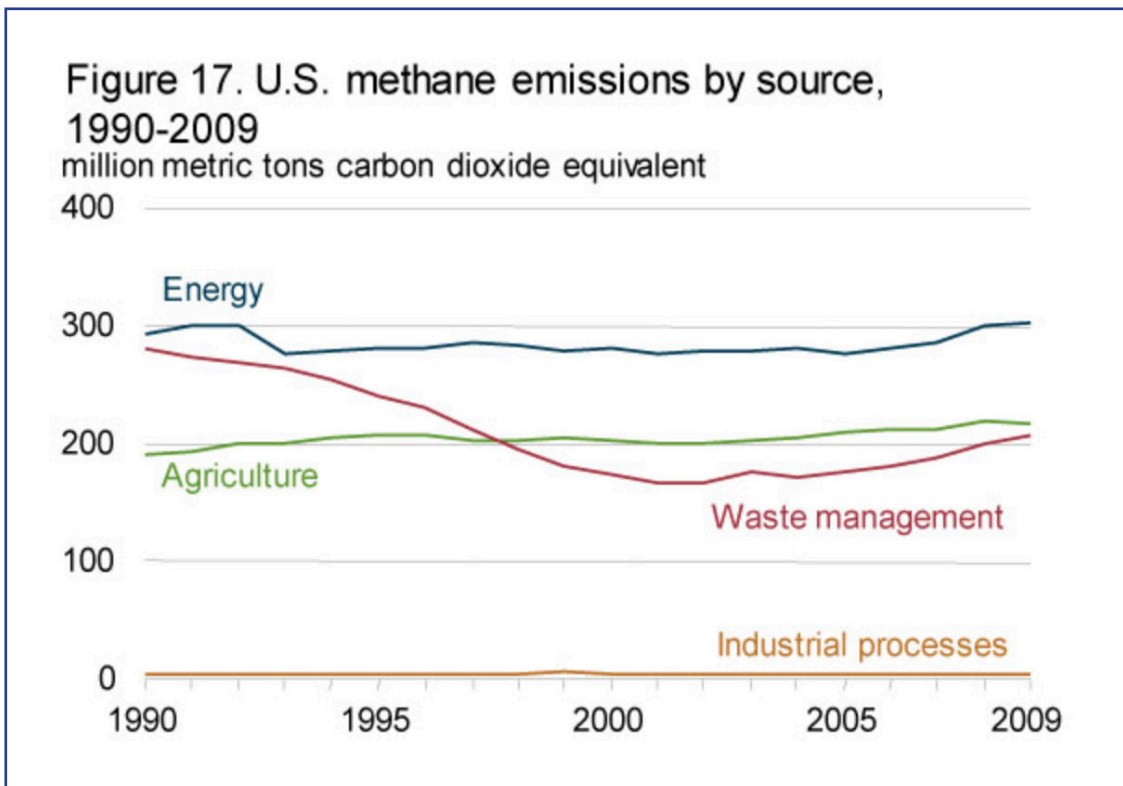
On February 12, 2018, the administration of President Donald Trump moved to repeal an Obama-era rule that restricts the release of methane into the atmosphere by oil and natural gas companies drilling on federal land.¹ In this *Close Up in Class Controversial Issue in the News*, we will examine the effects of methane in the atmosphere, explore the role of government in regulating methane emissions, and challenge you to weigh the pros and cons of the paths forward.

BACKGROUND



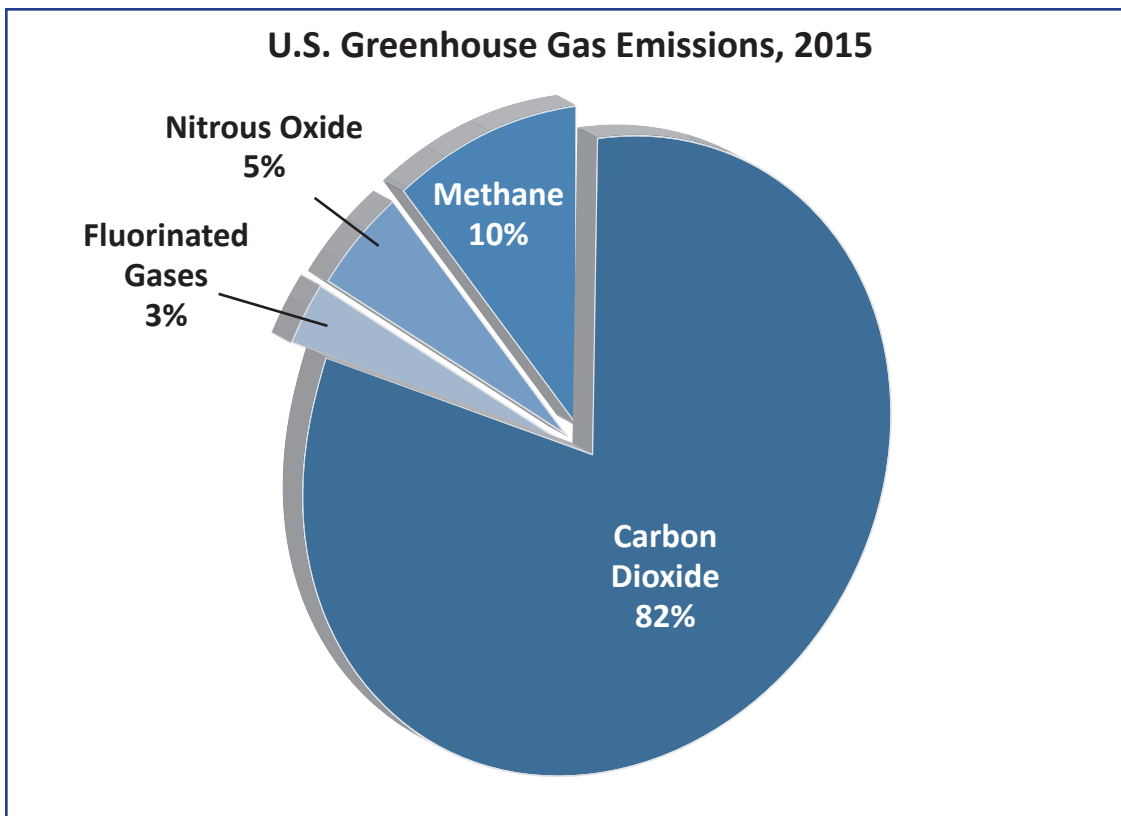
What is Methane? Methane is a colorless, odorless gas that occurs both in nature and as a result of human activities. In nature, methane is produced in volcanoes, by the decomposition of plant life in wetlands, in vents in the ocean floor, and by the digestive processes of animals and insects. It is also the primary component of natural gas, which is typically between 50 and 90 percent methane and the leading source of electricity in the United States.² Methane is an important source of hydrogen (used to make ammonia for fertilizers and explosives), carbon black (used to reinforce rubber for car tires), and other valuable chemicals such as methanol, chloroform, carbon tetrachloride, and nitromethane.³

Humans also contribute to the release of methane, primarily through the production and combustion of oil, natural gas, and coal, as well as through other activities such as the burning of biomass, livestock farming, and waste management operations.⁴ According to 2016 estimates by the Environmental Protection Agency (EPA), the U.S. oil and natural gas sector emits more methane than any other sector, accounting for one-third of all U.S. methane emissions.⁵



Source: Energy Information Administration, 2011

So, why are methane emissions significant? Methane is a greenhouse gas—a gas that absorbs the Earth’s surface heat, reradiates that heat back to Earth, and contributes to the greenhouse effect. Carbon dioxide is the most significant greenhouse gas (accounting for 82 percent of U.S. greenhouse gas emissions in 2015), but methane is the second most significant (accounting for ten percent).⁶ Methane is approximately 25 times more potent than carbon dioxide when it comes to trapping heat, but it exists in far lower atmospheric concentrations. And whereas carbon dioxide remains in the atmosphere for centuries, methane dissipates after roughly ten years.⁷



Source: Environmental Protection Agency, 2017

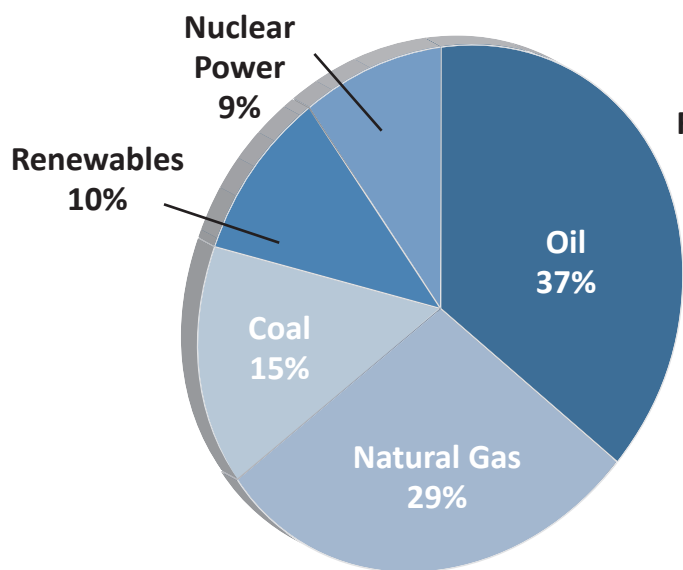
How Is the Government Regulating Methane Emissions? In May 2016, President Barack Obama’s administration unveiled new rules to control methane emissions from newly constructed oil and natural gas wells on federal land. The rules require oil and natural gas companies (1) to plug and capture leaks of methane from new and modified drilling wells and storage tanks (but not from existing wells), (2) to update their equipment, and (3) to write new plans for minimizing waste when drilling on federal land.⁸

The rules were aimed at accidental leaks and the process of flaring—a common practice at oil and natural gas wells in which excess hydrocarbon gases are burned off to produce water vapor and carbon dioxide.⁹ According to estimates from satellite data, approximately 3.5 percent of the world’s natural gas supply was burned off—or flared—at oil and natural gas fields in 2012.¹⁰

As the rules were announced in 2016, the EPA estimated that they would (1) lower methane emissions by 510,000 tons in 2025, and (2) cost oil and natural gas companies approximately \$530 million in 2025—costs that could be offset by up to \$690 million in reduced waste.¹¹ The Bureau of Land Management (BLM) also estimated in 2016 that the rules would prevent up to 180,000 tons of methane emissions annually—the equivalent of removing 950,000 cars from U.S. roadways.¹²

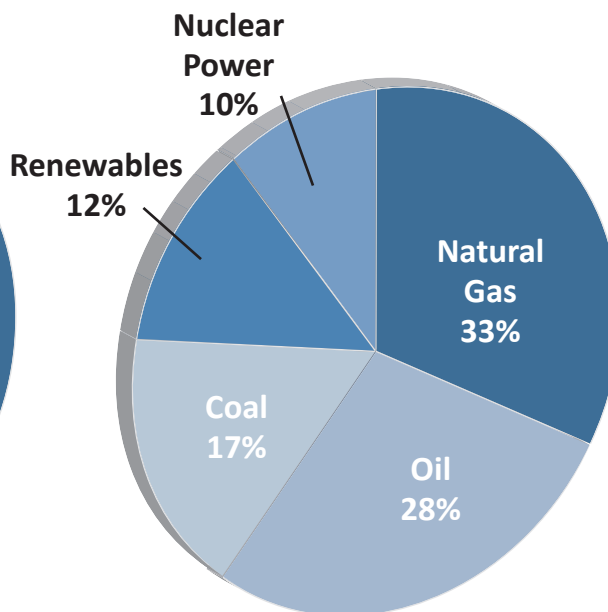
However, much of the oil and natural gas industry opposed the rules, arguing that they would hinder energy production, stifle job creation, pave the way for burdensome regulation of existing wells, and cost as much as \$279 million to implement.¹³ “It doesn’t make sense that the [Obama] administration would add unreasonable and overly burdensome regulations when the industry is already leading the way in reducing emissions,” said Kyle Isakower of the American Petroleum Institute (API). “Imposing a one-size-fits-all scheme on the industry could actually stifle innovation and discourage investments.”¹⁴

U.S. Energy Consumption by Source, 2016



Source: Energy Information Administration, 2017

U.S. Energy Production by Source, 2016



Source: Energy Information Administration, 2017



Should the Trump administration repeal rules that restrict methane emissions by oil and natural gas companies?

In the first year of President Trump's administration, the Interior Department announced that it would delay implementation of the Obama-era methane rules until January 2019, arguing that the BLM needed time to review the rules while avoiding heavy costs to the oil and natural gas industry. As of February 2018, federal judges have twice rejected the Trump administration's efforts to delay the rules.¹⁵

Thus, the Trump administration moved to repeal the Obama-era methane rules in February 2018. "In order to achieve energy dominance through responsible energy production, we need smart regulations, not punitive regulations," said Joe Balash, the Interior Department's assistant secretary for land and minerals management. The Trump administration is expected to publish its proposal in the Federal Register, kicking off a 60-day period of public comment. A final repeal would follow.¹⁶

Supporters of repealing the Obama-era methane rules argue that such a move is necessary to boost domestic energy production, reduce energy costs, foster innovation and investment in the oil and natural gas sector, and unleash the growth of good jobs. But opponents believe that repealing the methane rules would only encourage unchecked methane pollution, contribute to irresponsible levels of energy waste, and harm the environment for generations to come.



The Obama-era BLM announces its methane waste prevention rules



The Trump-era BLM announces plans to repeal the methane rules



SHOULD THE TRUMP ADMINISTRATION REPEAL RULES THAT RESTRICT METHANE EMISSIONS BY OIL AND NATURAL GAS COMPANIES?



YES: Boost domestic energy industries to create jobs and achieve energy independence.

As one of the biggest consumers and producers of energy in the world, the United States has a great deal at stake in the energy market. Every American is affected by the availability and cost of gasoline, natural gas, jet fuel, heating oil, and electricity. Nearly 6.4 million Americans are employed in the energy and energy efficiency sectors.¹⁷ And the development of energy spurs economic development and dramatically raises standards of living across the globe.

Thus, it is imperative that the federal government help boost the domestic energy industry—not impose costly, unnecessary methane regulations on energy producers. “The previous administration scorned domestic energy development and crafted the prior rule to deliberately stifle it,” said Representative Rob Bishop, R-Utah, who supports repealing the Obama-era rules. “This is a necessary step to promote investment in federal and tribal lands.”¹⁸

As of 2015, the United States was the world leader in the production of oil and natural gas hydrocarbons.¹⁹ The practice of fracking has increased U.S. natural gas production by nearly 30 percent in the last decade. The Energy Information Administration has also recently reported that the United States is on track to become a net energy exporter by 2030, allowing Americans to become energy self-sufficient.²⁰

Should the Obama-era methane rules take effect, they will endanger all of these successes. The rules would force energy producers to spend millions on new equipment and planning, threatening their ability to hire workers and produce low-cost energy. “The impacts of BLM’s Obama-era venting and flaring rule would be devastating to the economy of New Mexico, which relies on the production of energy resources for thousands of jobs, along with roughly 30 to 40 percent of the state’s operating funds,” said Representative Steve Pearce, R-N.M. “The full implementation of this rule would directly threaten funding for schools, teachers, hospitals, law enforcement, and other essential services.”²¹

Instead, the Trump administration should allow states to tailor their own regulations to local conditions. “North Dakota has clearly demonstrated that state-led regulations can deliver good environmental stewardship without imposing unnecessary costs,” said Senator John Hoeven, R-N.D. “Revising the duplicative BLM methane rule will empower greater energy production on federal lands. At the same time, we continue working to build the infrastructure we need across federal, state, and private lands to capture this valuable resource and reduce flaring.”²²

Americans must also remember that carbon dioxide—not methane—accounts for 82 percent of greenhouse gas emissions.²³ If Americans are not careful, they will over-regulate themselves into a future without domestic energy.



NO: End needless energy waste and protect the environment for generations to come.

“The U.S. loses more than \$1.5 billion worth of natural gas every year,” the Environmental Defense Fund noted. “That’s through leaks and intentional releases of methane—the main component of natural gas and a potent climate pollutant—throughout the oil and gas system. On federal and tribal lands alone, oil and gas companies waste more than \$330 million of natural gas annually that could heat homes, power vehicles, or generate electricity.”²⁴

In short, this debate is not only about the harmful environmental effects of methane emissions. Methane is indeed a risk to public health and a potent greenhouse gas that is 25 times more capable than carbon dioxide of trapping heat in the atmosphere.²⁵ But this debate is also about stopping the needless waste that occurs in energy production—and the Obama-era methane rules would help achieve that.

“Between 2009 and 2015, oil and gas producers on public and Indian lands vented, flared, and leaked about 462 billion cubic feet of natural gas,” the BLM noted in 2016. “That’s enough gas to supply about 6.2 million households for a year. These losses create a myriad of problems, including releasing harmful emissions, including methane, into the atmosphere; safety issues, if not properly handled; and waste of a valuable domestic energy resource.”²⁶

According to estimates from satellite data, approximately 3.5 percent of the world’s natural gas supply was wastefully flared at oil and natural gas fields in 2012. Although Russia leads the world in the total volume of flared natural gas, the United States is home to the greatest number of flares. “Flaring is an unproductive waste of a valuable, non-renewable resource and a significant source of carbon dioxide and methane emissions,” said Bjørn Håmsø, who manages the Global Gas Flaring Reduction Partnership at the World Bank.²⁷

Thus, it is vital that the Trump administration leave the Obama-era methane rules in place. Such a move would capture wasted energy resources, ensure the viability of the oil and natural gas industry for years to come, and help protect the environment from the harmful effects of methane.

“We are proving that we can cut harmful methane emissions that contribute to climate change, while putting in place standards that make good economic sense for the nation,” said then-Interior Secretary Sally Jewell in November 2016. “Not only will we save more natural gas to power our nation, but we will modernize decades-old standards to keep pace with industry and to ensure a fair return to the American taxpayers for use of a valuable resource that belongs to all of us.”²⁸

QUESTIONS TO CONSIDER



1. Do you support repealing the Obama-era methane rules? Explain your answer.
2. Which do you believe is a higher priority: boosting domestic energy production or working to protect the environment? Explain your answer.
3. Do you believe it is the role of the federal government to enact this type of methane emission rule, or would another entity (state government, private business, etc.) be better equipped to do so? Explain your answer.



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- ³ *Encyclopedia Britannica*. "Methane." 25 Feb. 2018. Web. 27 Feb. 2018.
- ⁴ Ibid.
- ⁵ Mooney, Chris. "The U.S. Has Been Emitting a Lot More Methane Than We Thought, Says EPA." *Washington Post*. 15 Apr. 2016. Web. 27 Feb. 2018.
- ⁶ *Encyclopedia Britannica*. "Greenhouse Gas." 15 Feb. 2018. Web. 27 Feb. 2018. Environmental Protection Agency. "Overview of Greenhouse Gases." *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2015*. Web. 27 Feb. 2018.
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- ⁹ Friedman, Lisa. "Trump Administration Targets Obama-Era Effort to Limit Methane." *New York Times*. 12 Feb. 2018. Web. 27 Feb. 2018. ExxonMobil. "Understanding Flares." Web. 27 Feb. 2018.
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- ¹¹ Davenport, Coral. "E.P.A. Methane Leak Rules Take Aim at Climate Change." *New York Times*. 12 May 2016. Web. 27 Feb. 2018.
- ¹² Friedman, Lisa. "Trump Administration Targets Obama-Era Effort to Limit Methane." *New York Times*. 12 Feb. 2018. Web. 27 Feb. 2018.
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- ¹⁶ Friedman, Lisa. "Trump Administration Targets Obama-Era Effort to Limit Methane." *New York Times*. 12 Feb. 2018. Web. 27 Feb. 2018.
- ¹⁷ U.S. Department of Energy. *U.S. Energy and Employment Report*. Jan 2017. Web. 1 Mar. 2018.
- ¹⁸ Bureau of Land Management. "BLM Offers Revision to Methane Waste Prevention Rule." 12 Feb. 2018. Web. 1 Mar. 2018.
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- ²⁰ Brady, Jeff. "U.S. Likely to Become Net Exporter of Energy, Says Federal Forecast." NPR. 5 Jan. 2017. Web. 1 Mar. 2018.
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- ²² Ibid.
- ²³ *Encyclopedia Britannica*. "Greenhouse Gas." 15 Feb. 2018. Web. 27 Feb. 2018. Environmental Protection Agency. "Overview of Greenhouse Gases." *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2015*. Web. 27 Feb. 2018.
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