

EPA

Rough economy, Trump rollbacks could hike methane emissions

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Figure 1 EPA Administrator Andrew Wheeler is overseeing a regulatory rollback on methane emissions. He's seen testifying in the Senate last week. Kevin Dietsch/CNP/AdMedia/Sipa/Newscom

Tough times for the oil and gas industry, combined with a rollback of environmental regulations, could hinder U.S. efforts to reduce methane emissions and fight climate change, experts warn.

Here's why. The U.S. oil and gas industry's post-pandemic economic woes may discourage companies from investing money in methane monitoring and control technologies — opening the door to more accidental methane leaks.

That scenario is made potentially worse by the Trump administration's plans to weaken mandates for the powerful greenhouse gas. While methane doesn't stay in the atmosphere as long as carbon dioxide, it's much more potent in the short term.

In the coming weeks, Trump's EPA is expected to send a regulatory package to the White House that would lessen requirements for oil and gas producers to monitor for leaks. It also would swap direct methane regulations for controls on an ozone precursor.

Environmentalists say the long-delayed package would dismantle the Obama EPA's attempt to regulate the sector responsible for one-third of U.S. methane emissions.

That's especially true, they say, as it has been designed to make it harder for EPA to eventually regulate the existing oil and gas infrastructure responsible for the bulk of the leakage.

The oil and gas industry has been divided in its support for the rollback, with oil majors and some independent producers favoring a nationwide methane rule they say would create a level playing field for producers.

But companies opposed to such a rule and lobbying groups like the American Petroleum Institute and the Independent Petroleum Association of America have long held that the Obama rules were duplicative and unnecessary, as producers already have a business incentive to avoid waste.

"Fundamentally, our industry is in the business of producing and delivering natural gas, of which methane is the main constituent," API argued in a recent blog post.

"What company wouldn't want to preserve their product?" said Nicole Jacobs of Energy in Depth, a project of IPAA, which supports the rollback. "First and foremost, natural gas is a commodity, and if it's leaking, that's money going out the door."

But now the coronavirus pandemic has sent oil demand and prices tumbling to lows not seen in two decades. Gas prices are stable but low. Combined with EPA's plans to lighten requirements for monitoring leaks and controlling methane across the oil and gas supply chain, experts say a methane boom is possible.

As of this writing, Brent crude was at \$35 per barrel after briefly visiting negative territory in April, while natural gas prices hovered just above \$1.70 per million British thermal units.

Oil demand has been down during the pandemic, as people worldwide stayed home to stop the spread of the virus. It's expected to rebound as economies reopen, but the U.S. Energy Information Administration estimated earlier this month that demand for petroleum would decline about 9% in 2020. Production has also taken a hiatus, and Energy Secretary Dan Brouillette and others have predicted some producers would go out of business as a result of the crisis ([*Energywire*](#), May 15).

It's unclear whether all this adds up to more methane or less. Less production might mean fewer leaks — especially from new wellheads that won't be drilled because of the pandemic and recession. But companies might not have the budget and bandwidth to monitor existing infrastructure.

"There are two possible scenarios here," said Jon Goldstein, director of regulatory and legislative affairs for the Environmental Defense Fund.

"One is that in a lower price environment with lower production and shut-in wells, you could see perhaps less methane emissions," he said. "The other possibility is that with lower prices, tighter margins and producers that are struggling to stay afloat, you could see more methane emissions because perhaps corners get cut and voluntary measures that have recently been put in place fall by the wayside."

Low prices and methane

The Paris-based International Energy Agency raised those concerns in a March report on the possible effect of petroleum industry woes on global methane ([*Climatewire*](#), April 7). IEA stresses, though, that about a third of global methane leakage can be abated at no net cost with today's technologies.

In the United States, experts say the independent producers who opposed EPA methane most strongly could be the most prone to cut back their monitoring practices in an era of tight budgets.

"When it comes to the upstream part of the business, the lower prices are, the less thinly capitalized producers want to spend on actions that are not required by regulation," said David Goldwyn, chairman of the Atlantic Council's Energy Advisory Board.

Best practices on methane do come with a price tag. Experts said one of the best ways to monitor for leaks of invisible, odorless methane is with drone-mounted infrared cameras, which cost up to \$200,000 a pop.

Goldwyn, who was the State Department's energy envoy under President Obama, said not all companies are likely to allocate funds for rigorous monitoring and repair in an environment of tight budgets.

"In the absence of regulation, you're going to find significant heterogeneity between operators," said Goldwyn.

Reed Olmstead, director of North American upstream research at IHS Markit, agreed that some smaller operators might find drone technology and other methods of leak detection too costly in the current business environment.

"That said, I think it really just depends on the DNA of the operator, where [environmental, social and governance] priorities rank in their boards' decisionmaking," he said.

"That varies widely across all operators," he continued. "I would agree that there is a risk of that being one of the more likely items to get reduced funding in capital budgets, but that's not to say it's a guarantee or that every company will make that decision."

The tea leaves

In fact, some in the petroleum industry say earning a good reputation for environmental stewardship is a stronger incentive for a company to implement best practices on methane than maintaining inventory.

Social capital is valuable, they say, especially in a world where consumers are increasingly concerned about climate change. Voluntary industry initiatives and partnerships have sprung up in recent years, and oil majors have introduced methane targets of their own, often to mixed reviews.

Paul Ulrich, vice president of Jonah Energy LLC, said his company began aggressively monitoring and fixing its methane leaks before Obama's EPA and the state of Wyoming moved to regulate.

"Over the last couple of years, we've doubled down on our efforts regardless of lower gas prices, which we've experienced for a few years now, and certainly regardless of the current crisis," he said.

The large independent natural gas producer uses green completion technology to prevent methane from escaping at the wellhead. It monitors for leaks every month with drones equipped with flare cameras, and it has installed stationary cameras in much of its field to find leaks to be repaired.

The company also makes methane reduction a metric in determining compensation for its employees, and it earned a third-party certification for methane performance.

Ulrich said Jonah Energy expects to woo conservation-minded customers, particularly in nearby California. That state's climate programs tend to favor renewable energy over gas, but Ulrich said Jonah Energy sees an opening.

"If that natural gas can be proven to be more responsibly developed with a focus on emission reduction, we do believe that markets such as California may show an interest," he said.

Jonah Energy backs direct federal regulation of methane, but Ulrich said the company's methane policies make sense anyway from the social capital point of view.

"We're looking at the tea leaves," he said.

Low oil prices might make producers more frugal

Goldwyn said that the industry narrative that companies have a built-in incentive to control methane leaks because they sell gas has "always only been partially true."

All oil wells produce gas, but not all gas wells produce oil. In production areas where gas is the primary target, producers have the infrastructure and the incentive to get the most out of that gas.

But in the oil-rich Permian, for example, producers have drilled for oil and produced gas despite lacking the pipelines necessary to transport that gas to market. That has led to disposal of gas through burning — a practice that produces carbon dioxide and can result in methane leakage, too, if flaring is incomplete.

Industry experts note that pipeline capacity is being built in the Permian now, and they say a period of slack demand and low production would allow construction to progress before production ramps back up. EDF says flaring in the Permian has declined since the pandemic started.

Olmstead of IHS Markit said declining oil prices might actually sharpen producers' interest in selling the gas they produce to maximize profits.

"The reason we saw venting and flaring was because there was no pipeline, and the economics of a \$50 to \$60 barrel of oil — it just didn't move the needle for these guys," he said. "But now that we're at \$30 and we have pipelines, the preference will be to put [gas] in the pipeline and move it to market."

On the other hand, abruptly shuttering production may create new opportunities for methane leakage.

David Lyon, who works on EDF's campaign to improve methane measurement for the oil and gas sector, said that when producers shut in wells, there might be leakage if valves are faulty. And mergers and bankruptcies during a downturn in the oil industry could create thousands of orphan wells that states will become responsible for.

Experts say state bonding programs are often undercapitalized, and plugging can cost hundreds of thousands of dollars. Research **shows** abandoned wells are a significant source of leaked methane. Twitter: [@chemnipot](#) Email: jchemnick@eenews.net