Fracking Does Not Contribute to Global Warming

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From Opposing Viewpoints in Context

> "Total methane emissions from fracking are about 10 percent lower than levels set by EPA."

Coral Davenport is the energy and environmental reporter for *National Journal*. In the following viewpoint, Davenport explains that according to a study conducted by scientists at the University of Texas, the methane emissions produced by hydraulic fracturing are not sufficient to contribute negatively to climate change. It is probable that the study's findings will give ammunition to the government's efforts to increase regulation on coal-fired power plants, pointing to fracked natural gas as a cheaper and safer alternative, Davenport speculates.

As you read, consider the following questions:

1. What are the concerns of environmental groups regarding fracking that Davenport cites?
2. What conclusions did the study reach about methane emissions from fracking?
3. According to the viewpoint, how many sites in which areas were studied by the University of Texas researchers?

Frackers, rejoice.

A new study in the *Proceedings of the National Academy of Sciences* concludes that hydraulic fracturing—the controversial technique behind the nation's recent oil and gas boom—doesn't appear to contribute significantly to global warming, as many environmental groups have warned.

Good News for Oil and Gas Companies

It's great news for oil and gas companies such as ExxonMobil, Shell, and Chevron, which have relied on breakthroughs in so-called fracking technology to cheaply unlock vast new reserves of domestic oil and natural gas that had been trapped underground in shale-rock formations.

Hydraulic fracturing involves cracking open shale rock by injecting a cocktail of sand, water, and chemicals underground. Many environmental groups fear that the process can contaminate underground water supplies—and also that it releases underground stores of methane, a potent greenhouse gas that can have 20 times more impact on global warming than carbon dioxide.

"It's very good news," said Richard Keil, a spokesman for ExxonMobil, of the study. "This is a groundbreaking survey. It's the most extensive one that's been done yet, and it serves to add important new evidence that hydraulic fracturing does not contribute to climate change—it does not contribute methane emissions at levels higher than those set by the Environmental Protection Agency

[EPA]."

The study is also good news for the [Barack] Obama administration, which is expected this week to release one in a series of new global warming regulations on coal-fired power plants, the nation's chief contributor to global warming. White House officials contend that the climate change rules aren't likely to hurt the economy, in part because the coal power can be replaced by the new glut of cheaply fracked natural gas, which produces just half the carbon pollution of coal. However, if fears that natural gas fracking contributed major greenhouse gas methane emissions proved true, it could have frozen the natural gas boom and made it far more difficult for the Obama White House to rein in climate pollution without seeing spikes in energy costs.

The White House and EPA [Environmental Protection Agency] "have expressed great interest in the findings," said David Allen, a professor of chemical engineering at the University of Texas and the lead author of the study. Allen has been invited to brief EPA and other administration officials on the research.

It's expected that the study's results could also be taken into account as EPA and the Interior Department look toward crafting new regulations on fracking.

"This is the first data ever collected from unconventional oil and gas development. With good data, you can make good policy," said Mark Brownstein, associate vice president and chief counsel for the Environmental Defense Fund's U.S. climate and energy program.

"People have rightly raised the issue—is natural gas better for the climate than coal or oil? This is a first step to getting better information to answer that question."

Fracking Releases Acceptable Levels of Methane

The study concluded that the majority of hydraulically fractured natural gas wells have surface equipment that reduces on-the-ground methane emissions by 99 percent, although it also found that elsewhere on fracking rigs, some valves do allow methane to escape at levels 30 percent higher than those set by EPA. Overall, however, the study concludes that total methane emissions from fracking are about 10 percent lower than levels set by EPA.

The $2.3 million study was conducted by scientists at the University of Texas, with funding provided by nine energy companies, including ExxonMobil, and one environmental group, the Environmental Defense Fund. A spokesman for the University of Texas said that while the companies contributed money to the study, they had no input on the research or results, which were subject to independent peer review before being published in the *Proceedings of the National Academy of Sciences*, one of the nation's most prestigious scientific journals.

A 2011 study by Cornell University researchers ignited opposition to fracking when it concluded that methane leaks from natural gas wells actually made natural gas a more climate-unfriendly energy source than coal. Although Obama has championed natural gas as a low-carbon "bridge" fuel to the

future, green groups cited the Cornell study as reason that natural gas could become a climate nightmare.

University of Texas researchers say their yearlong study, which involved measuring methane emissions from 190 natural gas production sites in the Gulf coast, mid-continent, Rocky Mountains, and Appalachia, is far more comprehensive than the Cornell study, which relied on existing data rather than new fieldwork.

The study's authors and sponsors said that while the study is robust and comprehensive, more research on methane emissions along the natural gas supply chain is still needed. The Environmental Defense Fund intends to sponsor more than a dozen such studies in the coming years.

Further Readings

Books

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- Tom Wilber *Under the Surface: Fracking, Fortunes, and the Fate of the Marcellus Shale*. Ithaca, NY: Cornell University Press, 2012.
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- Andrew Marantz "Underfoot," *New Yorker*, November 25, 2013.
- Marita Noon "The Secret Danger Liberals Don't Want You to Know: Fracking Is Safe," Townhall.com, December 29, 2013.
- John Simaz "Debunking a Year's Worth of Falsehoods from Ban Michigan Fracking," Energy in Depth Michigan, January 17, 2014.
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