

They depended on data from a limited period of time.

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. <sup>conclusion</sup> 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

<sup>counter</sup> 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, <sup>key word for conclusion</sup> 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, <sup>key word for conclusion</sup> however, the study concludes that total methane emissions from fracking are about 10 percent lower than levels set by EPA. <sup>conclusion</sup>

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