

New study seeks to settle debate on impacts of natural gas boom

Jean Chemnick, Environment & Energy Publishing, 10-10-12

A leading environmental group launched a major field study today that seeks to answer how much of a boon for the climate the United States' switch to natural gas use really is.

The Environmental Defense Fund is collaborating with nine major natural gas producers to conduct the study, which will look at how much heat-trapping methane is emitted during the natural gas production process. The EDF study will collect empirical data from a sampling of natural gas production sites and is set to be completed in January.

"What that leak rate is has a huge impact on the climate impact of natural gas," said EDF Clean Energy Project Manager Drew Nelson in an interview. Methane has 21 times the climate-forcing impact of carbon dioxide, and data on the gas industry's emissions of it vary widely.

Recent efforts to estimate methane emissions from the gas industry -- including the boom in hydraulic fracturing -- rely upon secondhand data reported by producers. Some, like a study released in June by the American Petroleum Institute and America's Natural Gas Alliance, show the sector's emissions to be minuscule, while others, like a study released last year by Cornell University researchers, show that gas use might have more of a global warming effect than carbon-rich coal.

The EDF study is an attempt to "get past some of this 'He said, she said' and just get to the facts and take the direct measurements," Nelson said.

The study will be led by researchers at the University of Texas, Austin. While the university was behind a controversial study earlier this year that determined that hydraulic fracturing, or "fracking," has no impact on groundwater, Nelson said EDF is partnering with another department and none of the same researchers will be involved.

The industry partners, which include some of the largest natural gas producers in the country, have proposed sites where measurements may take place, and researchers will choose from among them. Nelson said that precautions will be taken to ensure that sites are not cherry-picked to skew the study's results and that there is transparency about which sites are chosen.

Methane from gas production is largely not regulated at the federal level. U.S. EPA finalized a rule in April that will require unconventional gas producers to phase in "green completions" to capture methane and volatile organic compounds that are released during the initial fracking process but that addresses only one of many emissions points in the natural gas supply chain, environmentalists say.

Historically low gas prices mean that gas is gaining an ever larger share of the U.S. market, replacing coal in power generation and heating oil in the home heating sector. There is also evidence that oil and gas production has leapfrogged refineries to become the sector with the second-highest emissions of greenhouse gases.

David Doniger, policy director of the Climate Center at the Natural Resources Defense Council, said last week that this shift has increased interest in a New Source Performance Standard for greenhouse gases from

"I'm sure there will be talks beforehand, but if there is any need to file a lawsuit, it would probably occur early in the year," he said.

Asked whether this would delay NSPS rules that EPA is already obligated to write for refineries under the terms of a prior settlement agreement, Doniger said no.

"I think EPA can walk and chew gum at the same time," he said. "They can do a number of things at once. They can't do everything at once."

"So we'll see," he concluded.