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New EPA Rules Could Prevent 'Fracking' Backlash

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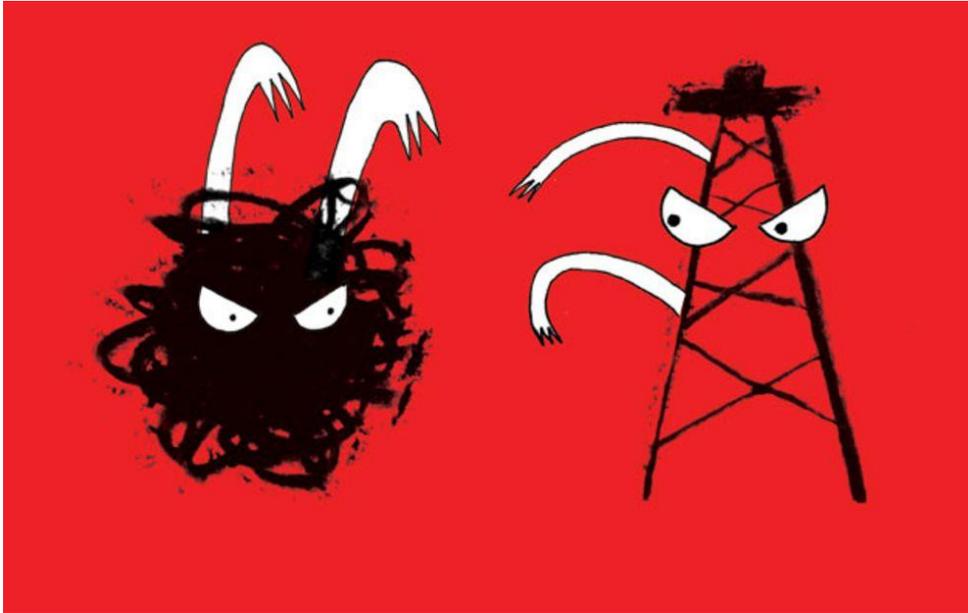


Illustration by Bloomberg Businessweek

The Environmental Protection Agency on Wednesday released new rules to limit methane emissions from natural gas production, a rare set of regulations that may serve the industry well, even if it cuts into producers' profit margins.

The new rules seek foremost to cut down on cancer-causing chemicals released during hydraulic fracturing, or "fracking." But the new regulations will have another benefit: They'll reduce by 25 percent the amount of methane gas that escapes during fracking operations. This is critical, because methane is at the center of a growing debate whether natural gas really is a "cleaner" source of energy than coal.

As fracking has unlocked remote and, until recently, prohibitively expensive reserves of natural gas, the industry has said the risks involved are outweighed by the fact that natural gas has half the climate impact as coal for the same amount of electricity generated. A number of environmental groups have even embraced natural gas as a "bridge fuel" to a renewable energy future. "Over its full cycle of production, distribution, and use, natural gas emits just over half as many greenhouse gas emissions as coal for equivalent energy output," wrote the Worldwatch Institute last August.

CO₂ is not the only greenhouse gas, however, and several environmental groups and scientists have begun to question if methane released during fracking operations negates the advantage of less CO₂.

Natural gas, which is about 80 percent methane, leaks into the atmosphere when it's extracted, transported, stored, distributed, and processed. Most of the leakage occurs where it's taken from the ground, and how much gets out at that stage may be greater than previously thought. If the leak rate is high enough, the global warming advantage over coal may be lost. A 2011 Cornell study determined suggested that was already the case; the study was the target of much criticism (pdf), though, for assuming high rates of methane leakage.

Scientists at the National Oceanic and Atmospheric Administration [NOAA], which conducts much of the government's climate science, then surprised nearly everyone in February when they revealed that air samples from an area of Colorado with a lot of fracking wells contained twice the amount of methane the EPA estimated came from that production method. NOAA's finding was closer to Cornell's numbers.

A split has emerged between the industry lobbying group American Petroleum Institute, which opposed the new rule, and gas drillers Southwestern Energy and Devon Energy, which both told Bloomberg News that reducing leakage is worth the investment using existing methods. New technologies to capture leaking methane were the subject of a conference in Denver last week.

Whether or not abiding by the new rule improves the atmosphere, scientists at the Natural Resources Defense Council (NRDC) argue that it's good for business: The lost methane represents wasted revenue for the industry. Moreover, cleaning up the air near fracking drills will be good public relations. "If industry wants to make the case [that it's greener than coal]," says Dan Lashof, a senior scientist at NRDC and director of its climate and clean air program, "then supporting sensible safeguards like these regulations is in their interest."