

Here Are America's Top Methane Emitters. Some Will Surprise You.

Oil and gas giants are selling off their most-polluting operations to small private companies. Most manage to escape public scrutiny.



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As the world's oil and gas giants face increasing pressure to reduce their fossil fuel emissions, small, privately held drilling companies are becoming the country's biggest emitters of greenhouse gases, often by buying up the industry's high-polluting assets.

According to a new analysis of the latest emissions data disclosed to the Environmental Protection Agency, five of the industry's top ten emitters of methane, a particularly potent planet-warming gas, are little-known oil and gas producers, some backed by obscure investment firms, whose environmental footprints are wildly large relative to their production.

In some cases, the companies are buying up high-polluting assets directly from the largest oil and gas corporations, like ConocoPhillips and BP; in other cases, private equity firms acquire risky oil and gas properties, develop them, and sell them quickly for maximum profits.

The largest emitter, Hilcorp Energy, reported almost 50 percent more methane emissions from its operations than the nation's largest fossil fuel producer, Exxon Mobil, despite pumping far less oil and gas. Four other relatively unknown companies — Terra Energy Partners, Flywheel Energy, Blackbeard Operating and Scout Energy — each reported emitting more of the gas than many industry heavyweights.

These companies have largely escaped public scrutiny, even as they have become major polluters.

"It's amazing how the small operators manage to constitute a very large part of the problem," said Andrew Logan, senior director of oil and gas at Ceres, a nonprofit investor network that commissioned the study together with the Clean Air Task Force, an environmental group. "There's just no pressure on them to do things better. And being a clean operator, unfortunately, isn't a priority in this business model."

Nick Piatek, a spokesman for Hilcorp, said the company "spends substantial capital retrofitting and refurbishing aging equipment" at its newly-acquired sites and that its investments would eventually bring down emissions while extending the life of those assets. "We inherit those emissions," he said.

The analysis, carried out by the energy consultancy M.J. Bradley & Associates using data that companies are required to submit to the E.P.A. Greenhouse Gas Reporting Program, highlights the climate consequences of methane.

The main component of natural gas, methane can warm the planet more than 80 times as much as the same amount of carbon dioxide over a 20-year period if it escapes into the atmosphere before being burned. A recent United Nations report singled out the oil and gas industry as holding the greatest potential to cut its emissions from methane, and the Biden administration is in the process of reinstating methane regulations relaxed by President Donald J. Trump.



A BP pipeline and workers in the Prudhoe Bay oil field in 2006. Last year, Hilcorp Energy bought BP's oil and gas business in Alaska. Al Grillo/Associated Press

Blackbeard Operating said that a recent review had revealed the company had overstated its emissions to the E.P.A. and would soon update its numbers. It said one of Blackbeard's top priorities was reducing emissions from its operations. Terra Energy declined to comment. Flywheel Energy and Scout Energy did not respond to requests for comment.

The analysis also comes with significant caveats. The E.P.A. data, from 2019, includes emissions from drilling and fracking sites, but excludes emissions from offshore drilling, as well as some parts of the oil and gas supply chain like pipelines or processing plants. Recent research has shown that the official data is likely to greatly underestimate actual emissions from oil and gas production, in part because it does not properly account for leaks from equipment, which can be a significant source of emissions. Poorly maintained sites often mean more leaks that go undetected for longer, making them highly polluting.

Still, the findings allow for comparisons between producers in a way other disclosures of emissions do not, underscoring how greenhouse gas emissions can vary dramatically between operators, experts said.

“A comparison is only as good as the actual company-level data is,” said Drew Shindell, professor of earth science at Duke University and the lead author of the United Nations report on methane. “That said, I do think it’s interesting to see that some of the various high-emissions intensity come from fairly small players that probably hardly anybody’s ever heard of.”

An E.P.A. spokeswoman, Enesta Jones, said the agency was “always working to improve and build on” ways to track emissions.

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The new analysis also shows how, as oil and gas giants start a long-awaited shift away from fossil fuels, they are shedding some of their most polluting assets to companies that provide almost no transparency into their operations.

“You’ve got an industry that is, in a sense, managing its decline,” said Kathy Hipple, a finance professor at Bard College. “It’s going to be ugly.”

When ConocoPhillips sold off its old gas wells in the San Juan Basin in northwestern New Mexico to Hilcorp Energy in 2017, it offloaded a struggling and aging operation that had weighed on its bottom line. The fossil fuel giant also rid itself of heavily polluting assets.

That year, ConocoPhillips reported that its greenhouse gas emissions had fallen by some 20 percent. In 2018, it became a founding member of the Climate Leadership Council, a coalition of businesses calling for a carbon tax.

But those emissions didn’t simply vanish. Hilcorp Energy, owned by the Houston-based billionaire Jeff Hildebrand, was a top polluter, according to the E.P.A. data.

According to the new analysis, Hilcorp, which has grown by buying up decades-old oil and gas assets, has the highest methane emissions in the country, despite being the 13th-largest gas producer. Hilcorp's methane emissions intensity, or leak rate, was almost six times higher than the average of the top 30 producers, largely caused by high emissions from its aging San Juan operations.

"So nothing changed from the perspective of the climate, even though it certainly made ConocoPhillips look a lot better," said Mr. Logan of Ceres.

ConocoPhillips said it was unable to comment on the accuracy of the analysis but also said that the company had emissions reduction targets consistent with the Paris Agreement goal of keeping global temperature rise to less than 2 degrees Celsius above preindustrial levels.

The offloading of aging, high-polluting assets by big fossil fuel companies will very likely intensify. Rystad Energy, an Oslo-based energy consultancy, forecast that, by the end of the decade, the world's largest oil and gas companies will divest from more than \$100 billion of assets as they adjust to the energy transition. Last year, Hilcorp bought BP's oil and gas business in Alaska.

"The global energy market is on the brink of a major transition to cleaner sources of energy" and oil majors are looking "to streamline their portfolios significantly," the Rystad analysts said last year. "As a result, several billions of dollars in assets are about to change hands."



A fracking site in Weld County, northern Colorado. The state's largest natural gas producer is Terra Energy Partners. Chet Strange for The New York Times

Terra Energy Partners, backed by investment fund Warburg Pincus, joined the fracking boom in 2015 and became one of the largest natural gas producers in Colorado.

Firms like Terra aimed to make quick money by buying up oil and gas production sites, ramping up production and selling them off for a neat profit. But these ventures have struggled as a production glut caused natural gas prices to slump. The Covid-19 pandemic threw the industry into further disarray.

To cope, Terra has reduced operating expenses at its oil and gas production sites by about 30 percent, allowing the company to generate significant cash flow and return capital to shareholders despite weak natural gas prices. Terra now ranks fourth in the industry in methane emissions, above the fossil fuel giant BP, despite producing less than a fifth of its output. Warburg Pincus declined to comment.

Terra's private equity peers, Flywheel Energy, Blackbeard Operating and Scout Energy, are also among the top ten methane emitters. Overall, the 195 smallest producers included in the report collectively account for just 9 percent of production, but they are responsible for 22 percent of total reported emissions. Bankruptcies have also surged, raising concerns over a rising number of orphaned or abandoned wells.

Now, as oil prices rebound, there is concern that these private equity-backed firms will try a final move to squeeze as much as they can from their investment. Private shale drilling and fracking has been a primary driver in the recent rise in U.S. oil and gas drilling.

"When profits are getting squeezed, cash flows are getting squeezed," said Ms. Hipple, the Bard professor, "the safety protocols, the pollution, don't get attended to the way they should."

To be sure, the large producers remain huge emitters. For greenhouse gas emissions overall, Exxon Mobil reported the industry's highest numbers in 2019, a record that is expected to become a top priority as the company contends with three climate-focused directors recently elected to its board by shareholders increasingly wary of its exposure to climate risks. Many of the oil and gas giants have joined voluntary, industrywide initiatives to reduce emissions.

Experts point out that leak detection and monitoring technology has grown more sophisticated in recent years, and scientists expect to soon use satellites to monitor methane emissions from space in real time. Replacing outdated equipment that uses gas pressure to operate equipment at sites that don't have electricity would also reduce methane releases, as would better maintaining storage tanks and compressors, and eliminating flaring and venting.

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