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David Wallace-Wells

OPINION

Hardly Anyone Talks About How Fracking Was an Extraordinary Boondoggle

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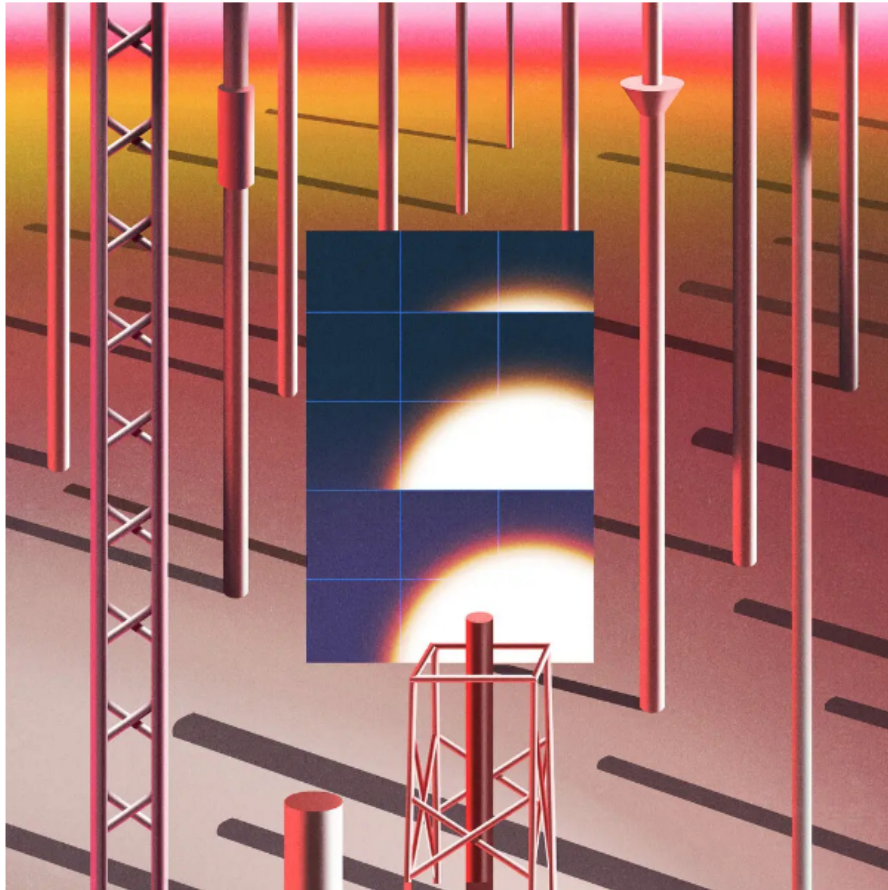


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Update: This newsletter has been updated to reflect news developments.

In the energy scramble provoked by Russia's invasion of Ukraine, American liquid natural gas has so far played the role of Europe's white knight. If Europe manages to keep its lights on, homes heated and factories running this winter, when energy demand is highest, it will be in large part thanks to shipments of American gas, which have more than doubled since the war began. Today, two-thirds of American oil and even more of its gas come from hydraulic fracturing, better known as fracking, which has played this heroic-seeming role before, in the country's long effort post-9/11 to get out from the grip of Middle Eastern producers and secure what is often described as "energy independence." (Donald Trump preferred the term "energy dominance.") It hasn't proved quite as useful as you might think: Because energy prices are set on global markets, domestic production doesn't mean Americans pay less at the pump. But thanks in large part to fracking, the United States has become the world's largest producer of both oil and gas.

Perhaps the most striking fact about the American hydraulic-fracturing boom, though, is unknown to all but the most discriminating consumers of energy news: Fracking has been, for nearly all of its history, a money-losing boondoggle, profitable only recently, after being propped up by so much investment from Wall Street and private equity that it resembled less an efficient-markets no-brainer and more a speculative empire of bubbles like Uber and WeWork. The American shale revolution did bring the country "energy independence," whatever that has been worth, and more abundant oil and gas. It has indeed reshaped the entire geopolitical landscape for fuel, though not enough to strip leverage from Vladimir Putin. But the revolution wasn't primarily a result of some market-busting breakthrough or an engineering innovation that allowed the industry to print cash. From the start, the cash moved in the other direction; the revolution happened only because enormous sums of money were poured into the project of making it happen.

Today, with profits aided by the energy price spikes of the last year, the fracking industry is finally, at least for the time being,

profitable. But from 2010 to 2020, U.S. shale lost \$300 billion. Previously, from 2002 to 2012, Chesapeake, the industry leader, didn't report positive cash flow once, ending that period with total losses of some \$30 billion, as Bethany McLean documents in her 2018 book, "Saudi America," the single best and most thorough account of the fracking boom up to that point. Between mid-2012 and mid-2017, the 60 biggest fracking companies were losing an average of \$9 billion each quarter. From 2006 to 2014, fracking companies lost \$80 billion; in 2014, with oil at \$100 a barrel, a level that seemed to promise a great cash-out, they lost \$20 billion. These losses were mammoth and consistent, adding up to a total that "dwarfs anything in tech/V.C. in that time frame," as the Bloomberg writer Joe Weisenthal pointed out recently. "There were all these stories written about how V.C.s were subsidizing millennial lifestyles," he noted on Twitter. "The real story to be written is about the massive subsidy to consumers from everyone who financed Chesapeake and all the companies that lost money fracking last decade."

At the risk of oversimplifying the never-ending complexities of energy, there is a climate lesson here — a clear contrast to draw. Fracking was nothing less than a genuine energy transition, enacted quite rapidly and at enormous upfront expense with only speculative paths to real profit, requiring large-scale infrastructure build-outs against some cultural and political resistance and yet celebrated all the while as a product of irrepressible capitalism, the almost inevitable result of the never-ending appetite Americans have for cheap energy. And yet for a decade, as fracking boomed, Americans were told again and again — and not just by climate deniers — that rushing a green transition would be too expensive, imposing a huge burden on taxpayers, who would be footing the bill to subsidize and support a renewable build-out that couldn't possibly be justified in terms of market logic or demand. For those exact same years, though middlemen profited off fracking, sector-wide losses mounted. "The industry, you know, it destroyed a lot of wealth," Jeffrey Currie, the head of commodities research at Goldman Sachs, said recently. "Like 10 to 20 cents on every single dollar. I think the number is actually closer to 30 cents on every dollar."

The contrast raises a basic question: What does it mean to call one form of energy "expensive" or to say that transitioning to another would "cost too much"? Put another way: Why did the country decide it was OK to lose money on one kind of energy but anathema to lose it on another?

The question is a purposefully naïve one, of course, eliding some important differences. It's true that the "subsidy" to fracking has come primarily from private markets and investors, not from public handouts designed to produce a particular energy-balance outcome. Measured by benefits to consumers, fracking has been a sort of bonanza. And it's also true that renewables have received their fair share of investor support, on top of the tax subsidies and R. & D. money that came out of the 2009 Recovery and Reinvestment Act; in fact, clean tech has enjoyed its own speculative boom years lately. But at the level of policy and public discourse, we spent a decade applying an intuitive market test to green energy — remember the right-wing furor over the bankruptcy of the solar company Solyndra? — even as the dirty alternative boom was itself flailing, quarter after quarter, producing billion-dollar bankruptcy after billion-dollar bankruptcy.

Clean energy has found its footing anyway, but renewables still account for only 12 percent of energy consumption in the United States, compared with 32 percent for natural gas and 36 percent for petroleum. Imagine what those figures might look like if there had been a decade of strategic subsidy and directed regulatory support of the kind that, in recent weeks, has been taken off the table by Senator Joe Manchin, who spiked President Biden's compromise energy bill, and by the Supreme Court's limiting of the power of federal energy regulation in *West Virginia v. E.P.A.* [*On Wednesday night, after this newsletter was published, Senate Democrats reached a [surprise deal](#) on a \$369 billion climate and tax package that would provide subsidies and support for clean energy.*]

Those setbacks come at a time when the viability of green energy creation has never been greater. The International Energy Agency has declared solar photovoltaic power "the cheapest electricity in history," and a huge majority of the world's population lives in places where renewables are already more affordable than power from fossil fuels. Those triumphs are a result of an astonishing decade-long, investment-powered decline in the cost of solar, wind and battery power: Between 2010 and 2020, the cost of solar power fell 90 percent, and the cost of wind and battery power fell nearly as much. In June, the International Energy Agency announced that global investment in clean, green and renewable technologies had exceeded investment in fossil fuels for the first time, accounting for more than \$1.4 trillion of the total global investment of \$2.4 trillion.

These advances have come despite, not because of, the major oil and gas companies, which are currently contributing less than 5 percent of all investment into clean tech — even as their net

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income, according to the International Energy Agency, is projected to more than double in 2022 to a staggering \$4 trillion. And the United States too is sitting largely on the sidelines: For example, in 2004 the country sold 13 percent of all photovoltaic cells worldwide, but in 2021 that figure had fallen to less than 1 percent, even as China's share has grown to nearly 80 percent now. Assessing overall clean-energy investment, the I.E.A. tellingly breaks up its numbers into three "regions": first, "advanced economies," which includes the United States and Europe; second, "emerging markets and developing economies"; and third, China, all on its own, getting its own bar in the three-bar graph and spending far more than either Europe or the United States individually. America should try to do something about that disparity — perhaps by taking a broader view of what qualifies, on a perilously warming planet, as a worthwhile investment.

Things to Read

This week, the International Renewable Energy Agency released its [annual industry update](#) with the headline news that, just in 2021, the standard industry measure of cost had fallen 15 percent for onshore wind and 13 percent for both offshore wind and utility-scale solar. The declines over the last decade, IRENA said, represented a "seismic improvement."

In the aftermath of Russia's invasion of Ukraine, there were months of panic about food price spikes and the possibility of grain shortages, given that 40 percent of globally traded wheat comes from those two countries. But as of a few weeks ago, wheat [was trading](#) at lower prices than it had been before the war began. Then a "grain deal" [was reached](#) to allow exports to continue — and though the impact was immediately muddied by a Russian [airstrike](#) on the port of Odesa, the price didn't budge on the news.

"Supercharged biotech rice yields 40 percent more grain," [Science reports](#).

"Researchers have found that the climatic influence of global air pollution has dropped by up to 30 percent from 2000 levels," according to another [report](#) in Science. While that may seem like unalloyed good news, it actually comes with a worrying climate dimension: Because aerosol pollution reflects sunlight back into space, reduced pollution may have boosted warming anywhere from 15 to 50 percent, according to Johannes Quaas, a climate scientist at Leipzig University and the lead author of the underlying study. "There is a lot more of this to come," he told [Science](#).

Science.

In The New Yorker, Dhruv Khullar [reports](#) from the ground during India's brutal monthslong heat wave. (More on that [here](#) and [here](#).)

According to initial tabulations, 1,700 people in Spain and Portugal [died](#) during last week's heat wave, and one statistical analysis suggests that [almost 1,000](#) may have died in Britain. Together, that's more than 25 times the official death toll of India's horrifying heat wave.

In Missouri, there [was](#) more rain in five hours than the state had ever received before in a single day; in Saint Louis, in six hours, there was two full months' worth of precipitation. As The Washington Post [points out](#), models suggest this kind of rainfall has only a 0.1 percent chance of happening in any given year, though it also points out that, of anywhere in the United States, the Midwest [has observed](#) the greatest increase (42 percent) of extreme precipitation events like [this](#).

Los Angeles is [considering](#) a ban on new gas pumps.

In The Los Angeles Times, the [first two](#) of what are sure to be a long line of tributes to the legendary writer Mike Davis, who is in hospice.

In The Nation, Thea Riofrancos [reviews](#) the ambivalent eco-terrorist Andreas Malm's quasi-manifesto "How to Blow Up a Pipeline," which was taken remarkably seriously by voices of the liberal establishment (The Times's [Ezra Klein](#), The New Yorker's [David Remnick](#) and Vox's [Sean Illing](#)) when it was first published last year.

In High Country News, Sean Patrick Carney [reviews](#) Elvia Wilk's "Death by Landscape": "Wilk proposes that in addition to your public meat body — the body that goes to work, has sex or gets headaches — you have a second body, an 'ecosystems body,' that is 'tethered' — in ways both identifiable and mysterious — to microbes, mosquitoes, whales, ice shelves, landfills, and annual average rainfall, as well as, of course, human political and social formations."

In Science, Charles Piller [reports](#) on the landscape-shifting revelation that the conceptual model for almost all treatment of Alzheimer's disease over the last few decades may rest on basic fraud.

David Wallace-Wells (@dwallacewells), a writer for Opinion and a columnist for The New York Times Magazine, is the author of "The Uninhabitable Earth."

Correction: July 28, 2022

An earlier version of this article mischaracterized the companies that funded America's fracking boom. They were private-equity companies, not venture-capital companies.