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SCIENCE

America Is the World's Largest Oil Producer. So Why Is Losing Russia's Oil Such a Big Deal?

The U.S. might be "energy independent," but it still can't control production.

By Robinson Meyer

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In December, in a ballet of global logistics, more than 30 tankers ferrying liquid natural gas from the United States to various destinations around the globe—Japan, Brazil, South Africa—canceled their trips and set a new course for the European Union. On the days they pulled into port, the U.S. supplied more natural gas to Europe than Russia did.

This represented more than a minor milestone in global energy history. As recently as the mid-2000s, energy companies fretted that the U.S. would soon run out of natural gas. Now, thanks to the U.S.-invented technology of hydrofracturing, or fracking, the country produces more gas than it can consume. "As in World War II and other crises, America has Europe's back," Mike Sommers, the chief executive of the American Petroleum Institute, wrote last week. (The institute, despite its scholastic name, is Washington's leading lobbyist for the oil-and-gas industry.)

Or … does it? Upon closer inspection, the fleet demonstrated not the raw power of American industry, but the inescapable supremacy of the market. The ships, after all, did not change course because the State Department had requisitioned the gas. The freedom-loving people of Houston had not donated gas to their Lithuanian kin. No, the tankers' journey to Europe was choreographed by the same force that every year sends cardiologists to Florida: abundant and profligate demand. In late December, European natural-gas prices stood at then-record highs. So the ships went. If they had been carrying Qatari gas, they would have gone all the same.

The episode reveals the power—and problems—of a vision that has guided U.S. energy policy for nearly 50 years. In 1973, President Richard Nixon announced Project Independence, a campaign to wean America off foreign oil by 1980. The project failed, but since then every president from Ronald Reagan to Barack Obama has aimed for "energy independence." (Donald Trump, with characteristic flair, modulated this to "energy dominance.") If the U.S. produced its own fossil fuels, the thinking went, then it would be protected from faraway wars and crises. Perhaps it could even abandon its costly military bases in the Middle East.

Since 2018, the United States has been the world's largest producer of oil and natural gas. On paper, "we are energy independent," John Hess, the CEO of Hess, said yesterday at CERAWeek, the energy industry's annual conference. But what a funny kind of independence it is. As he spoke, Russia's invasion of Ukraine pushed U.S. gas prices to more than $4.10 a gallon, setting a new all-time high. *Energy independence* has neither insulated the economy from geopolitics nor provided the U.S. with more industrial capacity in an emergency. It certainly hasn't helped slow down climate change.

Energy independence was not, let it be said, an altogether terrible idea. It was, like, fine. When oil prices leap worldwide, major oil-producing countries such as Saudi Arabia and the United Arab Emirates are able to insulate their citizens from the shock. For geological and political reasons, they maintain some *spare capacity*, that is, oil-pumping capacity that can be turned on and off within six months. They consider fossil-fuel production to be a question of national security, and they regulate it as such.

The United States does not take this approach to its fossil fuels. The federal government does not claim any right to the oil or gas under private land. It has no policy tool to quickly increase or decrease drilling. During the first half of the 20th century, when America truly dominated the global oil industry, one government in the United States actually *was* able to set prices at the global level in the same way that the OPEC Plus cartel does today. But this happened, remarkably, at the state level. The Texas Railroad Commission opened and closed the state's formidable taps.

Texas's easy-to-reach resources have since dried up, so the commission no longer plays its price-setting role. Now Texas oil comes from modern horizontal fracking wells, which take six to eight months to produce their first drop of oil.

That means, under the U.S. oil industry as it exists today, there is no way to spin up new oil production in a few weeks or months. But more important, it means that U.S. oil companies have developed the *opposite* of independence. Since Congress lifted the ban on oil exports in 2015, all American-drilled oil and some of our natural gas have been priced on the international market. Global market forces, not our abundance of domestic fossil fuels, set the price of oil and gasoline in the United States.

This has exposed every fracking company to the volatility of the global oil market. Twice over the past decade, oil prices surged enough that frackers responded by drilling more wells and putting more oil on the global market. Each time, they drilled so much oil that prices crashed again, ruining their investment and driving a wave of consolidation in the industry. By far the worst of these bust cycles happened during the pandemic. Today, the U.S. fracking industry, which used to comprise hundreds of firms, has been whittled down to several dozen companies.

The industry, which has twice betrayed its investors, now has financial PTSD. Fracking companies are so worried about shanking their investors that they have barely drilled new wells as prices have climbed. (Last week, as Russian oil fell off the global market, the number of fracking wells in the U.S. actually went down.) This new "capital discipline" has turned the industry into something of a cartel. Scott Sheffield, the head of Pioneer Natural Resources, the country's biggest shale company, declared last year that no fracking company would drill a new well even if the price of oil went above $100 a barrel—which it has. "All the shareholders that I've talked to said that if anybody goes back to growth, they will punish those companies," he said.

This means that although America may be "energy independent" on paper, American consumers have won no benefits from this independence, and American officials cannot assert this independence in any meaningful way. Market dynamics, not overzealous regulations, have imprisoned the industry.

That hasn't stopped lobbyists from pretending otherwise. The American Petroleum Institute recently sent a policy wish list to the Department of Energy. The letter chides the White House for pursuing "false solutions" to the country's high energy prices. It asks, for instance, that the Biden administration speed up several regulatory processes, such as a new five-year offshore-leasing plan. It implies that the government should loosen certain environmental regulations. Many of these ideas wouldn't start to affect the oil market for several years. The API makes no estimate of how many thousands of barrels a day its members would produce, nor does it promise that these ideas would fill the gap left by Russian producers.

It doesn't have to be this way. There have been strategic benefits from the surge of domestic oil and gas production, of course. But they have been small. As the European liquid-natural-gas example shows, the most straightforward one is that there is simply more oil and natural gas on the market than there used to be. This means that Europe can obtain new natural gas for itself in an emergency. But it's not clear that American interests are better off in a world where the U.S., specifically, has provided that production than in a world where Canada or some other country, such as Italy, has.

At the same time, the surge in U.S. oil production has helped weaken the country's strategic position. When gas is cheap, people tend to buy bigger, less fuel-efficient cars. And on a historical basis, gas was very cheap from 2014 to 2021. That means oil demand is now high and feeding Russian coffers at the exact moment when U.S. national-security and climate objectives require it to start going down. Beyond that, America's new energy power has complicated its relationship with Saudi Arabia and even Germany, helping both countries grow closer to Russia in their own way.

The government can fix this. It can take a more direct role in stabilizing output, insulating the industry from the vagaries of a global market. If the world is becoming a more dangerous place, then the U.S. must treat its oil-and-gas industry as the geopolitical asset that it is. It can also shelter the industry from the more volatile and disorderly energy market that decarbonization and the global transition to renewables will bring. According to a new memo by Employ America, a center-left think tank, the Biden administration could accomplish these goals in a matter of months—using three existing legal tools—while protecting American consumers from Vladimir Putin's oil-fueled economic aggression.

Its first tool for doing so is the Strategic Petroleum Reserve, a stockpile of crude oil under the federal government's control. Since November, Joe Biden has twice sold off barrels from the reserve in order to lower oil prices. But as economists never hesitate to point out, this is a stop-gap measure that does not permanently increase production and that has no long-term effect on prices. The government can use the SPR more robustly to affect the underlying causes of instability in the oil market.

If oil prices tumble below about $60 a barrel, then most U.S. fracking projects no longer pencil out. That means oil companies wouldn't be able to deliver a consistent profit to their investors. The government can use the SPR to change this behavior, Employ America argues. It could start by pledging to buy oil at or above a consistent price for the next few years. Under the law, the government can also conduct exchanges, where it sells oil from the reserve and promises to buy it back later. This would lower oil prices today and encourage production in the future, especially if the White House said that it would buy oil only from new domestic wells.

The second tool is the Exchange Stabilization Fund, a financing authority controlled by the Treasury Department. Although the fund is designed for stabilizing exchange rates, it can be used broadly. Today, the Treasury Department could use the fund to help fracking companies secure the financing that they need to produce more oil.

The final tool is the Defense Production Act, a Korean War–era law that allows the government to stabilize supply chains during moments of national crisis. During the pandemic, the law was used to shore up the country's COVID-19 tests and vaccines, as well as other medical supplies. Now it can ensure that the raw materials used for fracking—steel pipe, high-quality sand, and perhaps even labor—are available at a fair price to the industry. (Sheffield, the Pioneer CEO, has said that shortages of sand and fracking rigs explain some of the industry's reluctance to drill.)

In the near term, the economy's hunger for oil and gas is inelastic. In the long term, that demand must be cut as quickly as possible. Oil stabilization cannot be the United States' only response to the Ukraine crisis. That means Congress must pass energy and climate provisions to encourage low-carbon electricity production. But it also means the Biden administration should use similar tools to add excess capacity to other energy supply chains. That entails using the Defense Production Act to ensure that Western firms can ramp up electric-vehicle, renewables, and heat-pump production as quickly as possible. But it also means providing low-cost financing to companies committed to decarbonization, and making batteries available so as to reduce demand for backup diesel generators.

The market needs a constant price signal in order to move away from fossil fuels, but for now it is receiving a bewildering pattern of shrieks and coos. But a deal is possible here, because neither the renewables industry nor the oil industry knows which future it should plan for. Nobody knows the trajectory that oil demand will follow over the next few decades. By providing some certainty for that forecast, the Biden administration can help the oil industry plan for a future with less oil consumption.

It's worth adding, too, that the climate consequences of increasing domestic oil production are not as bad as those from other forms of fossil-fuel production. One of the benefits of fracking is that it is "short-cycle production," in industry parlance: Most fracking wells produce most of their oil in the first few years of their life. Unlike a major new deepwater project in the Gulf of Mexico, which would produce oil for decades to come, fracking's damage would be more limited to the 2020s.

Energy independence was not an awful goal. But true independence cannot be achieved by the market alone. The U.S. ensures that its food supply, timberlands, and water quality are not administered solely by the market. That same philosophy can apply to two of its most important natural resources: its fossil fuels and its climate. The first goal can be achieved through more aggressive management of the industry; the second, by a phaseout of fossil fuels altogether. Only through such stewardship can the United States secure the true dividends of prosperity and freedom.

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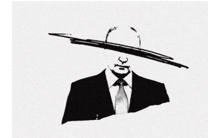

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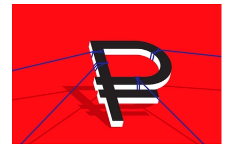

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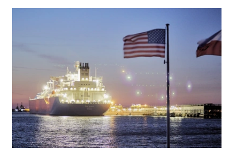

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