

The war in Ukraine hasn't left Europe freezing in the dark, but it has caused energy crises in unexpected places

February 20 2023, by Amy Myers Jaffe



Credit: Pixabay/CC0 Public Domain

Through a year of war in Ukraine, the U.S. and most European nations

have worked to help counter Russia, in supporting Ukraine both with armaments and in world energy markets. Russia was Europe's main energy supplier when it invaded Ukraine, and President Vladimir Putin threatened to leave Europeans to freeze "[like a wolf's tail](#)"—a reference to a famous Russian fairy tale—if they imposed sanctions on his country.

But thanks to a combination of preparation and luck, Europe has avoided blackouts and power cutoffs. Instead, less wealthy nations like Pakistan and India have contended with electricity outages on the back of unaffordably high global [natural gas](#) prices. As a global [energy](#) policy analyst, I see this as the latest evidence that less wealthy nations often suffer the most from globalized oil and gas crises.

I believe more volatility is possible. Russia has said that it will cut its crude oil production starting on March 1, 2023, [by 500,000 barrels per day](#) in response to Western energy sanctions. This amount is about 5% of its current crude oil production, or 0.5% of world oil supply. Many analysts expected the move, but it [raises concerns](#) about whether more reductions could come in the future.

How Europe has kept the lights on

As Russia's intent toward Ukraine became clear in late 2021 and early 2022, many governments and energy experts feared one result would be an [energy crisis](#) in Europe. But one factor that Putin couldn't control was the weather. Mild temperatures in Europe in recent months, along with proactive conservation policies, have reduced natural gas consumption in key European markets such as Germany, the Netherlands and Belgium [by 25%](#).

With less need for electricity and natural gas, European governments were able to delay drawing on natural gas inventories that they built up

over the summer and autumn of 2022. At this point, a continental energy crisis is much less likely than many forecasts predicted.

European natural gas stockpiles are [around 67% full](#), and they will probably still be 50% full at the end of this winter. This will help the continent position itself for next winter as well.

The situation is similar for coal. European utilities stockpiled coal and [reactivated 26 coal-fired power plants](#) in 2022, anticipating a possible winter energy crisis. But so far, the continent's coal use has risen only 7%, and the reactivated coal plants are averaging [just 18% of their operating capacity](#)

The U.S. role

Record-high U.S. energy exports in the summer and fall of 2022 also buoyed European energy security. The U.S. exported close to 10 million cubic meters per month of liquefied natural gas in 2022, [up 137% from 2021](#), providing roughly half of all of Europe's imported LNG.

Although domestic U.S. natural gas production [surged to record levels](#), some producers had the opportunity to export into high-priced global markets. As a result, surpluses of summer natural gas didn't emerge inside the U.S. market, as might otherwise have happened. Combined with unusually hot summer temperatures, which drove up [energy demand](#) for cooling, the export surge socked U.S. consumers with the highest natural gas prices they had experienced [since 2008](#).

Prices also soared at U.S. gas pumps, reaching or exceeding US\$5 per gallon in the [early summer](#) of 2022—the [highest average ever recorded](#) by the American Automobile Association. The U.S. exported [close to 1 million barrels per day](#) of gasoline, mainly to Mexico and Central America, plus some to France, and consolidated its position as a [net oil](#)

[exporter](#)—that is, it exports more oil than it imports.

Much like Europeans, U.S. consumers had to pay high prices to outbid other global consumers for oil and natural gas amid global supply disruptions and competition for available cargoes. High gasoline prices were a political headache for the Biden administration through the spring and summer of 2022.

However, these [high prices](#) belied the fact that U.S. domestic gasoline use [has stopped growing](#). Forecasts suggest that it will decline further in 2023 and beyond as the fuel economy of U.S. cars continues to improve and the number of electric vehicles on the road expands.

While energy prices were a burden, especially to lower-income households, European and American consumers have been able to ride out price surges driven by the war in Ukraine and have so far avoided actual outages and the worst recessionary fears. And their governments are offering big economic incentives to switch to [clean energy technologies](#) intended to reduce their nations' need for fossil fuels.

Developing nations priced out

The same can't be said for consumers in developing nations like Pakistan, Bangladesh and India, who have experienced the energy cutoffs that were feared but didn't occur in Europe. Notably, Europe's intensive energy stockpiling in the summer of 2022 caused a [huge jump in global prices](#) for liquefied natural gas. In response, many utilities in less developed nations [cut their natural gas purchases](#), creating price-related electricity outages in some regions.

Faced with continuing high global energy prices, countries in the [global south](#)—Africa, Asia and Latin America—have had to [reevaluate their dependence on foreign imports](#). [Increased use of coal](#) has made

headlines, but renewable energy is starting to offer greater advantages, both because it is [more affordable](#) and because governments can frame it as [more secure and a source of domestic jobs](#).

India, for example, is [doubling down on renewable energy](#), unveiling plans to produce hydrogen fuel for heavy industry using [renewable energy](#) and moving away from imported LNG. Several African countries, such as Ethiopia, are [fast-tracking development of hydropower](#).

Energy prices and climate justice

The energy challenge that the Russia-Ukraine crisis has bred in developing countries has intensified global discussions about climate justice. One less examined impact of giant clean tech stimulus plans enacted in wealthy nations, such as the United States' Inflation Reduction Act, is that they keep much of the available funding for climate finance at home. As a result, some developing country leaders worry that a clean energy technology knowledge gap [will widen, not shrink](#), as the energy transition gains momentum.

Worsening the problem, members of the G-7 forum of wealthy nations have [tightened their monetary policies](#) to control war-driven inflation. This drives up the cost of debt and makes it harder for developing countries to borrow money to invest in clean energy.

The U.S. is supporting a new approach called [Just Energy Transition Partnerships](#), in which wealthy nations provide funding to help developing countries shift away from [coal-fired power plants](#), retrain workers and recruit private-sector investors to help finance decarbonization projects. But these solutions are negotiated bilaterally between individual countries, and the pace is slow.

When nations gather in the United Arab Emirates in late 2023 for the next round of global climate talks, wealthy nations—including Middle East oil producers—will face demands for new ways of financing energy security improvements in less wealthy countries. The world's rich nations pledged in 2009 to direct \$100 billion yearly to less wealthy nations by 2020 to help them adapt to climate change and decarbonize their economies, but are far behind on fulfilling this promise.

U.N. Secretary-General Antonio Guterres has called on developed nations to [tax fossil fuel companies](#), which reported record profits in 2022, and use the money to fund climate adaptation in low-income countries. New solutions are needed, because without some kind of [major progress](#), [wealthy nations](#) will continue outbidding developing nations for the energy resources that the world's [most vulnerable people](#) desperately need.

This article is republished from [The Conversation](#) under a Creative Commons license. Read the [original article](#).

Provided by The Conversation

Citation: The war in Ukraine hasn't left Europe freezing in the dark, but it has caused energy crises in unexpected places (2023, February 20) retrieved 19 April 2024 from <https://phys.org/news/2023-02-war-ukraine-hasnt-left-europe.html>

| |
|--|
| <p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p> |
|--|