# the weekly anthropocene



Dispatches From The Wild, Weird World Of Humanity And Its Biosphere

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#### Energy and War: The US, EU, Ukraine, and Russia

Putin's brutal war of aggression against Ukraine is guickly shaking up world energy markets, as well as long-term clean energy policies. Oil and gas made up 60% of Russian exports as of 2019, much of it being sold to Europe. The free world has responded to this; with President Biden banning imports of Russian oil and gas and the more-Russian-gas-dependent European Union doubling down on the European Green Deal, with a plan dubbed "REPowerEU" to cut the use of Russian gas by two-thirds by the end of the year and encourage EU countries to fast-track renewables development, which is often now primarily hindered by regulations and activist opposition as opposed to lack of funding. And member states are responding: in addition to their epic foreign policy shift to fully align with defense of the North Atlantic alliance, Germany has set a new, stricter target to reach 100% renewable energy by 2035 (with an array of awesome, in-depth plans for everything from streamlining wind farm permitting to quickly cutting gas use) and earmarked 200 billion euros for industrial transformation by 2026. As European Commission Vice President Frans Timmerman said, "We have been too dependent on Russia for our energy needs. It is not a free market if there is a state actor looking to manipulate it...The answer lies in renewable energy and diversification of supply...Renewables give us the freedom to choose an energy source that is clean, cheap, reliable and ours."

Some more points: there's also a whole other category of big repercussions here stemming from the fact that Ukraine and Russia are both major wheat exporters but have both banned exports due to the war; the resulting higher wheat prices could lead to unrest in wheat import-dependent Egypt and exacerbate famine in Yemen, but might also benefit wheat-selling small farmers in sub-Saharan Africa. It's complicated, but overall the world is in a much better place to withstand food shocks like this than it was a few decades ago.

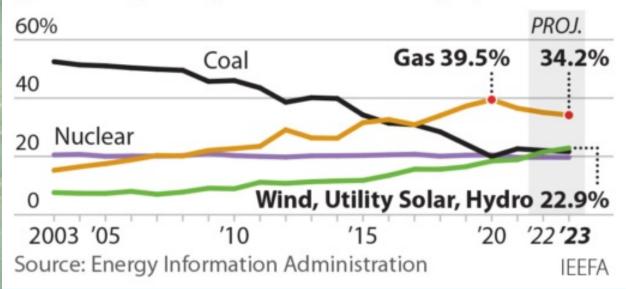
Also, there's an attempt by the fossil-fuel lobby to push a narrative that pro-clean energy policies are somehow impeding a transition away from Russian fossil fuel exports: this is patently false. The US is already a net exporter of fossil fuels, and American oil and gas companies have over 9,000 already approved drilling permits they're not using. Still, given the importance of gas prices to consumers' budgets and American politics, the Biden Administration is reportedly also pursuing rapprochement with major oil producer Venezuela (which is a very bad,

dictatorial regime, but not invading-neighboring-countries-and-bombing-hospitals bad) and considering a potential withdrawal from the US Strategic Petroleum Reserve. It's also worth noting that even short-term replacement of Russian gas and oil with gas and oil from other countries is an emissions win, since Russian pipeline infrastructure is very poorly maintained and <u>satellite data has revealed</u> that Russian pipelines and wells leak vast amounts of methane, a greenhouse gas considerably more potent than carbon dioxide. (<u>See this newsletter's earlier</u> report on this issue).

Finally, due to Russia's status as a major natural gas provider, natural gas in particular is likely to take a hit as an energy source around the world. Fortunately, the clean energy revolution is poised to take its place; the US likely peaked its gas use in summer 2020 and has begun its decline (see the Energy Information Administration data below). There may be a short-term rise in coal use in the US and EU, or possibly even a delay of a few coal plant shutdowns by a few years, but the onslaught of renewables in the pipeline is still on track to determine our energy future-and should be pushed forward more and more, as fast as possible.

## Surge in Renewable Power Starts Cutting Gas

Booming construction of solar and wind will rapidly lift generation, pushing aside both coal and gas power.



In sum: war is bad. Much of the astounding progress made in the last few decades-epic reductions in illiteracy, poverty, hunger, and disease-has been due to the lack of great-power war and the consequent growth of an interconnected, globalized, highly productive economy. In addition to aiding Ukraine as much as reasonably possible, we should take this war as a clarion call to speed the transition to forms of energy that aren't under the control of brutal dictators.

#### Maine

These questions about energy security aren't just a matter for international relations: American voters at all levels have a stake in this. And it shames this writer to admit that their beloved home state of Maine recently <u>screwed up quite</u> <u>badly</u> when faced with a choice between building out clean energy infrastructure and perpetuating dependency on fossil fuels, including Russian gas. In November 2021, Mainers voting in a referendum decided to shut down the New

England Clean Energy Corridor (NECEC) transmission line project, a proposed power line from hydroelectric dams in Quebec through Maine to provide low-carbon baseline power to the Massachusetts grid. The NECEC project was supported by both Governor Janet Mills and the Biden Administration, but, very disappointingly, was opposed by a shocking coalition of natural gas companies and some <u>deeply misguided</u> Maine environmental groups. It's now been revealed by reporters at the Acadia Center that post-Soviet privatization oligarch (and US citizen, unfortunately, so currently unsanctioned) <u>Lev Blavatnik</u> indirectly invested heavily in ads urging Mainers to vote against the NECEC project. Blavatnik's company Access Industries is the corporate owner (since 2018) of Calpine, a company that owns a major natural gas plant in the town of Westbrook, Maine. And that company spearheaded the fight to stop NECEC. Calpine-owned entirely by Blavatnik's company-invested \$3.2 million in the Super PAC that funded anti-NECEC ads and Maine ballot signature drives to get the anti-NECEC referendum going. (For the full story, see the Acadia Center article tab below).

As a result of all this, the NECEC project fell through, and until the very recent sanctions, <u>New England was importing liquified natural gas from Russia to keep the lights on</u> (yes, really!) and will now suffer from higher electricity prices with no Russian gas *and* no Quebec hydropower.

So, it looks like Maine voters handed a win to Team Putin and the global fossil fuel industry just a few months before the Ukraine invasion began. This writer is pretty sure no one in Maine *wanted* that outcome; but still, let's *never* make that mistake again. The core priority for ethical citizen actors in energy policy debates right now-*especially* anyone calling themselves an environmental group-needs to be to oppose Russian fossil fuel energy first and foremost, all other fossil fuel energy a close second, and to support any replacement form of energy and fast-track the development of all necessary infrastructure.

#### A Company Backed by This Mega Oligarch Helped Kill Clean ...

Russian President Vladimir Putin's savage assault on Ukraine has shocked the world, galvanized global democracies, and sent fuel prices surging. But months before Kremlin troops poured into the country, a company tied to one of the regime's...

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#### Pythons & Bobcats



Burmese pythons began living wild in the Florida Everglades in the 1990s (in particular after Hurricane Andrew <u>destroyed a pet python breeding facility in 1992</u>, releasing several into the wild) and quickly proliferated, with females laying 50 to 100 eggs at once and adults growing up to 17 feet long.

And unlike with the <u>many</u> other invasive species that have been unfairly maligned as harmful with no real evidence (a recurring theme in this newsletter), there's robust scientific evidence of Burmese pythons' harmful impact on local mediumsized mammal populations. A <u>2012 study reported</u> that road surveys had noted a 99% decrease in raccoon observations, a 98% decrease in opossum observations, and a complete failure to detect rabbits in areas of the Everglades where the pythons have become established. A state bounty hunter program has led to the removal of over 5,000 pythons since 2017, but it's likely only a drop in the bucket, as estimates for the total number in the Everglades range into the hundreds of thousands. Those estimates are very vague because Burmese pythons are also extremely difficult to find or track in the wild, being wellcamouflaged cold-blooded (and so invisible to thermal scans) ground-dwelling snakes in the midst of a hard-to-access mosaic of swamplands and forest.

So ecologists were pretty excited when a camera trap set up at a python nest in Big Cypress National Preserve caught sight of a bobcat repeatedly raiding a Burmese python nest. The bobcat first sniffed out the nest and ate some of the eggs then covered the nest back up and returned for more a short while later. Even more interestingly, when the roughly 14-foot, 120-pound mother python eventually came back, the 20-pound bobcat didn't immediately flee, instead countering the snake's early lunge with a swipe of its own. (Pictured, above). This was the first-ever recorded instance of *any animal in Florida* preying on Burmese python eggs, as well as being a pretty cool natural history interaction in its own right. Eventually, the feline claimed victory. To quote the *National Geographic* article: "Researchers later removed the python and the bobcat was observed returning to the site, unharmed." Check out <u>the full video at</u> youtu.be/4ZUYHXiUrs8.

"When we see something like this, it's so exciting," said ecologist Andrea Currylow, who wrote the report on this new finding. "The native species are learning, they're adapting, [and] they're able to be more resilient to an invasive species." She added. "Man, that's a brave bobcat."

This is obviously just one interaction, and we have no idea how common such

behavior might be. Bobcats may be eating python eggs left and right, or this could be a single atypical "superhero bobcat" individual. However, since Burmese pythons are incredibly hard to study, a chance observation like this is a disproportionately large insight into whether and how the Everglades might be finding a new equilibrium with these serpents. Fascinating news!



### 450 Gigawatts in the Gobi

An utterance by a lead figure in the Chinese government indicates a truly <u>massive renewables</u> <u>buildout</u> on the way. "China is going to build the biggest scale of solar and wind power generation capacity on the Gobi and desert in history, at 450 GW," (gigawatts) <u>said He</u> <u>Lifeng, director of the</u>



National Development and Reform Commission (essentially the economic central planning agency, a command-economy position without a parallel in the West), on March 5th. That's a really, really big number: for context, <u>at the end of 2020</u>, the United States had 1,117 GW of *total* utility-scale electricity capacity-everything feeding into the grid from coal plants to wind farms-plus an additional 27 GW in small-scale solar, like rooftop panels. 100 GW in massive solar projects in the Gobi are already <u>under construction</u>, so the newly announced 450 GW target, while huge, seems achievable! (Pictured: a preexisting Chinese solar power plant in the Gobi Desert).

This is great news, a further sign of China's long-term commitment to Xi Jinping's <u>stated goals</u> of peaking carbon emissions before 2030 and reaching carbon neutrality by 2060.

Every time this writer covers renewables progress in China, there's a moral tension in the topic: China is obviously a dictatorship committing atrocities in Xinjiang, suppressing democracy in Hong Kong, and now possibly moving towards support of Putin's war in Ukraine, and it's important never to overlook that. But their transition away from fossil fuels remains immensely important in reducing air pollution deaths, avoiding worst-case-catastrophe climate change outcomes (see this great rundown of where we are on this both best-case and worst-case outcomes now much less likely) and one day eventually stabilizing Earth's climate. It's a bit like how even the Soviet Union signed the (immensely successful) Montreal Protocol to resolve the ozone hole crisis in the 1980s, but on a much more transformative scale. When overall very bad regimes do good things that will help the planet and humanity at large, it's still worth celebrating.

