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Energy Policy as National Security

Introduction

If the lesson from 2020 to policymakers around the world was the importance of pandemic preparedness and the state of general public health, the lesson from 2022 was the importance of energy reserves, reliable networks, and independence through production. Energy is arguably the single most important asset to a country, as without it, a country cannot produce food or operate its defenses. Countries that do not produce their own energy or are net importers are at the mercy of the global energy market and the availability of fossil fuels. A shock to the global energy market can result in drastically rising energy costs which can cripple an energy-importing country and its economy, if that country does not have energy reserves. While Ukraine has faced the direct wrath of Russia's invasion, countries around the world have experienced economic side effects, primarily through a shortage and the price of oil and gas. This is especially clear in Europe, where countries have recently begun decommissioning coal and nuclear plants to switch to renewable resources to meet emission reduction goals.¹ The infrastructure for renewable resources is costly and takes time to develop, and many of these countries do not have fully developed infrastructure.² To fill in for the production hole left by the decommissioning of previous energy sources and the additional shutdown of domestic oil and gas extraction to meet further climate goals, these countries have become reliant on importing Russian oil and gas.³

Drastically rising energy costs resulting from global conflicts and pipeline shutdowns show that the world is far from the stable environment envisioned by liberals. Climate and emission goals need to be at least balanced with realistic energy policy and that the former should not drive the latter. Climate change is now widely accepted as a fact, and while there is debate on the severity of it and the actions needed to properly address it, relatively few policymakers outright deny it.⁴ The influence that climate change has on energy policy varies by country, though Western democracies have arguably been the most aggressive in addressing it and in pursuing limitations and changes in energy consumption.⁵ However, this change does not come without risk and compromise to national security. Energy is one of the primary drivers of development in society, and restricting energy or development has negative implications on the economy, food production, and more. While the need to ensure that climate change does not result in an excessive risk to the economy and stability, actions to mitigate it cannot be worse than the effects of climate change itself. For example, it should not jeopardize a country in the event of a conflict or make it overly dependent on a single external source. German reliance on Russian oil and gas is an example of this overdependence.

¹ "Decommissioning fossil fuel power plants between now and 2030 essential for Europe's low carbon future," *European Environmental Agency*, 6 Dec 2016.

<https://www.eea.europa.eu/highlights/decommissioning-fossil-fuel-power-plants>

² Ibid.

³ Filip Medunic, "Russia's 'gas pivot' to Asia: How Europe can protect itself and pursue the green transition," *European Council on Foreign Relations*, 27 Oct 2021.

<https://ecfr.eu/article/russias-gas-pivot-to-asia-how-europe-can-protect-itself-and-pursue-the-green-transition/>

⁴ Naomi Oreskes, "The Scientific Consensus on Climate Change," *Science* Vol 306, Issue 5702, (4 Dec 2004): 1686.

⁵ Tim Boersma, "Europe's Energy Dilemma," *Brookings*, 18 Jun 2014.

<https://www.brookings.edu/articles/europes-energy-dilemma/>



“Gas pipelines between Europe, Russia and Caucasia”⁶

Overdependence and Vulnerabilities

Russia has long supplied oil and gas to Europe, though the number of pipelines from Russia to Europe and the amount imported has risen steadily in recent history. This has led Europe to become increasingly dependent on Russia for its energy, which unsurprisingly poses a security risk. Prior to the start of the Russian invasion of Ukraine, concerns were raised about overdependence on a single source for energy. American President Donald Trump made the argument that Germany would become dependent on Russian oil and gas to the United Nations General Assembly in 2018, to relatively little avail.⁷ In this speech he argued that Germany’s investment in Russian energy with the Nord Stream 2 pipeline would make the country too dependent on Russia. President Trump also commented on Poland’s decision to diversify their sources for natural gas. He cited Poland’s investment in the Baltic Pipe and decision to not further invest into Russian energy as a strategically wise move. Though panned by the attending German representatives when the speech was given, Trump’s words turned out to be true. The invasion of Ukraine, subsequent sanctions against Russia, and the shutdown of Nord Stream pipelines have caused Germany to struggle to replace Russian gas. Germany, the largest consumer of energy in Europe and like many other countries in the European Union, has signaled that it is committed to phasing out fossil fuels and nuclear energy sources in favor of renewable and green energy sources. The largest share of which, roughly 20%, comes from wind-driven turbines. If there is not enough wind to drive the turbines or the energy demand exceeds the production from renewables, Germany is burning fossil fuels, including coal, to fill the gap despite their planned phaseout.⁸

⁶ “Gas pipelines between Europe, Russia and Caucasia,” *Planete Energies*, 25 Apr 2022.

<https://www.planete-energies.com/en/medias/infographies/gas-pipelines-between-europe-russia-and-caucasia>

⁷ Donald Trump, “Full text: Trump’s 2018 UN speech transcript,” *Politico*, 25 Sep 2018.

<https://www.politico.com/story/2018/09/25/trump-un-speech-2018-full-text-transcript-840043>

⁸ Rob Schmitz, “Amid an energy crisis, Germany turns to the world’s dirtiest fossil fuel,” *NPR*, Sep 27 2022.

<https://www.npr.org/2022/09/27/1124448463/germany-coal-energy-crisis>

The fossil fuel that Germany depends on the most is oil, primarily used for transportation, which as Trump noted, is primarily imported from Russia. In 2021, oil was nearly 32% of Germany's total energy consumption, and 34% of that was delivered by Russia.⁹ Because oil is used almost exclusively for transportation, it cannot be as easily replaced as coal for general electricity production. Unfortunately for Germany, Russia also accounts for 45% of their coal imports.¹⁰ Germany's plan to reduce fossil fuel use, called *Energiewende*, has been complicated by Russia's war in Ukraine. Previously, Germany imported fossil fuels from Russia to compensate and fill in the gap left by simultaneously ramping down domestic production while ramping up renewable production. This included the decommissioning of the country's nuclear power stations. Russia's war in Ukraine has thrown Germany's *Energiewende* into complete chaos and exposed bad policy set on unrealistic climate goals taking precedence over reasonable energy policy. As part of the European Union, Germany, though dependent on Russia for energy, agreed to price caps in addition to the existing sanctions on certain petroleum products.¹¹ As of 2021, Germany relies on fossil fuels for roughly three-quarters of their energy consumption and cannot develop green energy alternatives quickly enough to replace even non-transportation related fossil fuels.¹² To make up for this, Germany has begun to seek out alternative sources for oil, gas, and coal.

Balancing Energy Security and Climate Commitments

Despite the country's *Energiewende* plan, Germany has developed its first liquified natural gas terminal in a remarkable time to bring in shipments of liquified natural gas from exporters such as the United States, Belgium, and the Netherlands.¹³ This terminal will allow Germany to offset a significant portion of its previous gas imports from Russia, and with the development of additional terminals, prevent overdependence again in the future. Liquified natural gas terminals are strategically advantageous because rather than a fixed pipeline such as the Nord Stream, a terminal allows the importation of natural gas from any country with access to transport ships. Despite Germany's Green and other political parties' focus on the transition away from fossil fuels, Germany has also joined other European neighbors in the effort to explore new gas fields.¹⁴ Additionally, the long-planned decommissioning of Germany's nuclear power stations, of which only 3 of the 17 remain from when Chancellor Angela Merkel in 2011 heedlessly declared Germany's long dependence on nuclear energy over, is not in fact over. The country recently announced that it would be extending the life of its three remaining nuclear power stations out of concern that in conjunction with a fall in availability of other immediately available energy sources,

⁹ Julian Wettengel, "Germany and the EU remain heavily dependent on imported fossil fuels," *Clean Energy Wire*, 14 Mar 2022.

<https://www.cleanenergywire.org/factsheets/germanys-dependence-imported-fossil-fuels>

¹⁰ Ibid.

¹¹ Silvia Amaro, "Russian oil sanctions are about to kick in. And they could disrupt markets in a big way," *CNBC*, 1 Dec 2022.

<https://www.cnbc.com/2022/12/01/russian-oil-sanctions-are-about-to-kick-in-and-they-could-disrupt-markets-in-a-big-way.html>

¹² "Energy consumption by source, Germany," *Our World in Data*, 8 July, 2022.

<https://ourworldindata.org/grapher/energy-consumption-by-source-and-country?country=~DEU>

¹³ "Germany completes LNG terminal in move to diversify energy supply," *Euronews*, 16 Nov 2022.

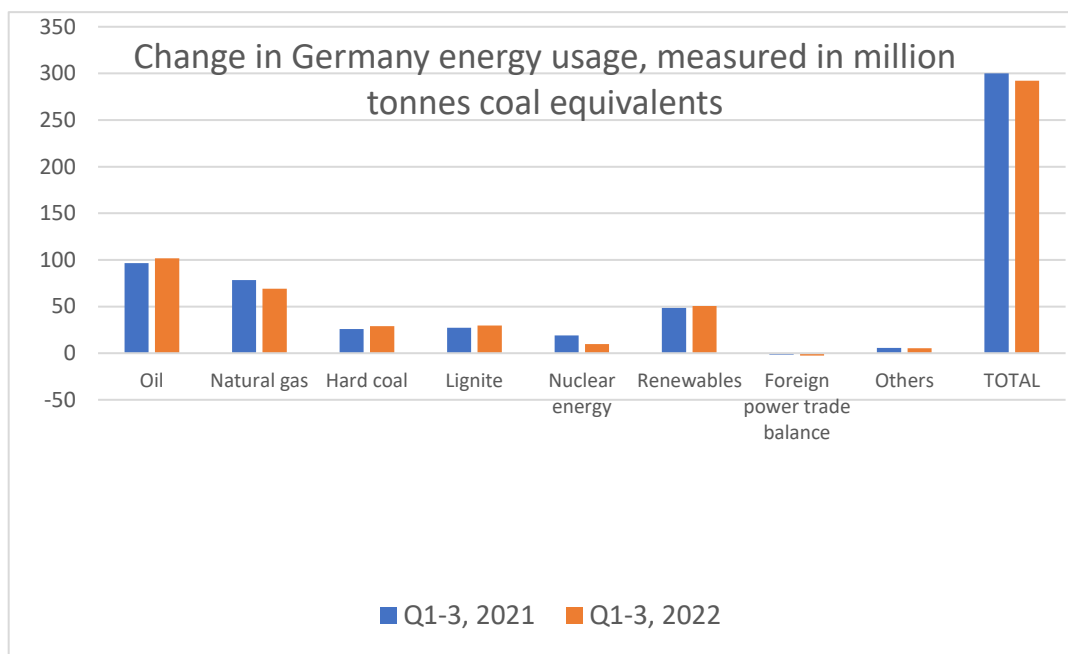
<https://www.euronews.com/2022/11/16/germany-completes-lng-terminal-in-move-to-diversify-energy-supply>

¹⁴ Kate Abnett, "Germany wants EU to work with countries on new gas fields – document," *Reuters*, 20 Oct 2022.

<https://www.reuters.com/business/energy/germany-wants-eu-work-with-countries-new-gas-fields-document-2022-10-20/>

such as fossil fuels, that the country would not be able to meet peak demands.¹⁵ Germany’s policymakers have been forced to come to terms with balancing a desire to wean itself off fossil fuel usage, an overdependency on Russia, and maintaining a stable power grid.

While Germany serves as a strong example from the European Union, with regards to its unrealistic and national security harming climate change goals and associated energy policy, countries around the world have signed onto similar commitments and guarantees. Similar to the European Union, initiatives by the United Nations seek to phase out the use of fossil fuels and accelerate the adoption of renewable resources.¹⁶ Western nations, in particular, have made a significant push for climate pledges and self-imposed limitations on emissions and developments on non-renewable sources. These policies, however, seem to be inherently counterproductive to growth and development, as the development of even the most progressive countries’ renewable infrastructure trails the loss of output from fossil fuels if progressive policies are enacted.¹⁷ Countries advocating for extreme emission reduction goals must choose between economic growth or meeting their goals, they cannot be accomplished at the same time. Rather than encouraging a realistic progression from coal and oil to natural gas and nuclear, and then purely renewable sources, Western countries and international organizations like the United Nations have pursued an unrealistic goal and timeline that harms development and national security.



Change in energy usage in Germany from Q1-3 in 2021 and 2022.¹⁸

¹⁵ “Germany extends lifetime of remaining nuclear plants,” *Deutsche Welle*, 17 Oct 2022.

<https://www.dw.com/en/germany-extends-lifetime-of-all-3-remaining-nuclear-plants/a-63466196>

¹⁶ “FACT SHEET: President Biden Announces New Initiatives at COP27 to Strengthen U.S. Leadership in Tackling Climate Change,” *White House*, 11 Nov 2022.

<https://www.whitehouse.gov/briefing-room/statements-releases/2022/11/11/fact-sheet-president-biden-announces-new-initiatives-at-cop27-to-strengthen-u-s-leadership-in-tackling-climate-change/>

¹⁷ Benjamin Storrow, “Renewable Energy Is Surging, but Not Fast Enough to Stop Warming,” *Scientific American*, 14 Nov 2018.

<https://www.scientificamerican.com/article/renewable-energy-is-surging-but-not-fast-enough-to-stop-warming/>

¹⁸ “German energy seen falling 2.7% in 2022, same as in Jan-Sept,” *Reuters*, 2 Nov 2022.

<https://www.reuters.com/markets/europe/german-energy-seen-falling-27-2022-same-jan-sept-2022-11-02/>

Realist vs. Liberal View of International Cooperation

Countries, including the United States, have pledged not only to cut their own use of cheap and efficient fossil fuels but also to encourage smaller, developing nations to do the same. While the United States and Great Britain flourished and grew throughout the 19th and 20th centuries due to cheap oil and gas, they have committed themselves to ensuring that other countries do not have the same opportunities. Despite natural gas contributing significantly less CO₂ and greenhouse gases than oil or coal, developed countries continue to push developing countries to use costly and temperamental renewable resources through initiatives like “Climate Finance +”. While Western nations can potentially, though not entirely unharmed, afford to make rapid transitions, these developing nations cannot as it will only serve to limit their growth. For international organizations like the United Nations and the European Union, the changes they are pursuing are not limited to energy policy and include monetary policy as well. Western nations have made a pledge to make payments to developing nations for what the United Nations is calling “climate reparations.”¹⁹ Developed countries, including the United States, have agreed to pay potentially trillions of dollars each for what the United Nations perceives to be compensation for “environmental harm.” Curiously, this requirement does not extend to some of the largest environmental polluters in the world, namely China and India. According to the United Nations, China and India are classified as “developing countries,” who are presumably not responsible for their CO₂ and greenhouse gas emissions, unlike the United States and countries in Western Europe.

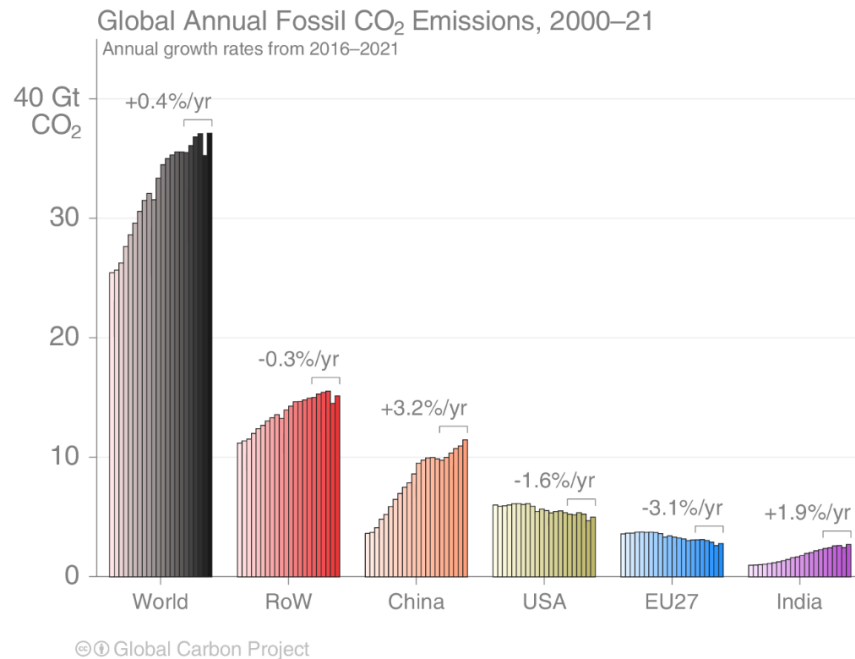
While environmental activists consider climate change regulations and self-imposed restrictions on non-renewable energy production to be a life-saving benefit, these regulations and restrictions can also be used as a tool by adversaries to gain an advantage. The West seems overtly happy to display its virtue in the fight against climate change, signaling its willingness to cut emissions and subsequently growth, invest in not yet cost-effective renewable energy, and outright pay money to countries for “climate reparations.” These actions either directly or indirectly aid countries that are in opposition to the West and Western hegemony. When countries invest in renewable energy sources that are not cost-effective and subsequently restrict growth, it indirectly gives their adversaries a competitive advantage. If renewable resources become cost-effective, then like any other resource, they become beneficial. Until then, they only serve to harm countries when favored over cost-effective energy sources. If countries including China and India are considered developing countries by the United Nations and Western countries are ordered to pay them, then Western countries end up directly aiding countries that are, at the very least, generally opposed to the West. Like Germany, this highlights an issue of countries being overly eager to appease activists calling for extreme measures to fight climate change, and not properly balancing the energy needs of countries with their moral responsibility to control emissions.

While the West is eager to self-impose emissions restrictions and seek out additional policies such as climate reparations, the East seems less so. While adherents to the international relations theory of liberalism might argue that the fight against climate change is the perfect opportunity for international cooperation among usual rivals on a common cause, realists are less convinced. Many efforts to address climate change internationally have come from international organizations, including the United Nations and European Union. These organizations and their supporters believe that China and the United States can cooperate on addressing climate change through mutually agreed-upon targets identified during events such as the Paris Climate Accords

¹⁹ Andrew Follett, “Biden Forces America to Pay Climate Reparations,” *National Review*, 22 Nov 2022. <https://www.nationalreview.com/2022/11/biden-forces-america-to-pay-climate-reparations/>

and COP27. During the Paris Climate Accords, nations agreed to seek to limit the increase in global temperature to no more than 1.5 degrees Celsius, to develop energy sources that do not contribute to greenhouse gas emissions, and to reach carbon neutral status as quickly as possible.²⁰ At the 2022 United Nations Climate Change Conference or COP27, the signers agreed to the aforementioned climate reparations plan in which developed countries will make payments to developing countries. A common theme in these conferences is the labeling of countries as either developed or developing, which has significant ramifications for signatories.

Although China is the greatest polluter and one of the largest economies in the world, it is classified as a developing country. As previously discussed, this means that China will not be required to contribute money to funding other “developing” countries’ transition from fossil fuels to renewable resources. It also means that China is not held to the same standard as “developed” countries when addressing its emissions. While the United States has already significantly reduced its emissions, China’s emissions have only continued to rise. From the realist perspective, this is completely natural as China would be expected to pursue an energy policy that provides it with cheap, stable energy regardless of its impact on the rest of the world. This is, of course, in conflict with the liberal view, which assumes that China will cooperate with the rest of the world to voluntarily reduce its emissions by restricting its energy usage or switch to a less cost-effective or available energy source. While China may sign onto various climate accords such as Paris or the United Nations Climate Change Conference, ensures that it does not have to meet the same strict requirements and commitments as its rivals in the US. While liberals may see China’s seat at climate forums as the country taking steps to work with the international community and a soft power win for the West, realists see it as a hollow act that only strengthens China’s position against the West as the West cuts its emissions while China’s grows.



Global annual fossil CO₂ emissions, 2000 - 21²¹

²⁰ “The Paris Agreement,” United Nations Climate Change, 12 Dec 2015.

<https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>

²¹ Robbie Andrew, “Global CO₂ emissions by region,” 2022.

<https://robbieandrew.github.io/GCB2022/>

Rogue States

Although China has a developed and advanced economy, it could be considered “developing” in the sense that it still has a sizable portion of its population outside of industrial regions. China still has developmental potential and will likely try to integrate the less developed areas with the more developed areas. If China is acting in its own best interest, it will use the cheapest and most readily available energy sources to modernize the rest of the country. While China likely signs onto international climate accords with the intention of encouraging the West to pursue costly solutions to climate change, another tactic that China utilizes is simply not complying with the international community and pursuing a self-serving energy policy. Again, as realists would point out, in an anarchical international system, China is always going to pursue policies that strengthen itself. As the Global Carbon Project chart demonstrates, China has increased its CO₂ emissions continually since it began modernizing. Like Great Britain and the United States in the industrial revolution before it, rapid developments in China’s economy require large amounts of energy, which can be found cheaply in coal and oil. Realists would again argue that it is wishful thinking on the West’s behalf to believe that China would limit its development to appease the West for a chance to join a global system that it already rejects.

China claims that it has invested heavily in renewable energy. A 2019 report from the United Nations’ Renewable Energy Policy Network found that “China accounted for the bulk of investment worldwide for the seventh successive year, at USD 91.2 billion in 2018, although this was down 37% from 2017 and was the lowest annual figure since 2014.”²² There is little reason to believe that China is lying about its investments in renewable resources, as once the cost of investment and infrastructure is accounted for, they are essentially free and unlimited sources of energy that only add to China’s energy portfolio. However, China’s impressive investments are dwarfed by their continued use of fossil fuels, in addition to the noted decline in investment in renewables. While China still led the world in the total value of investment in renewables, it also led the world in CO₂ emission by a significant margin, at 27% of the world’s total emissions.²³

The investments that China has made in renewables do relatively little to offset the country’s total carbon output due to the country’s extreme and rapidly rising energy use. Unlike the West, such as Germany with their Energiewende plan, China is not pursuing renewable energy as a replacement for fossil fuels. Therefore, it is not decommissioning coal and gas plants as it develops solar and wind farms. In fact, renewable resources only contributed to 7% of the country’s energy consumption in 2021, a time when the country was operating at a significantly slower pace than usual because of COVID lockdowns.²⁴ Coal, which burns significantly dirtier than gas and even oil, accounted for a staggering 55% of China’s energy consumption. This further diminishes China’s role in organizations like the United Nations Climate Change Conference. Rather than pursuing an entirely green platform or carbon neutral status, China is only using renewable energy to add to its energy reserves.

The fact that China does not favor renewable energy over fossil fuels means that it is still in desperate need of additional fossil fuel if it wishes to continue to grow. China has large deposits

²² “Renewables 2019 Global Status Report,” *UN Environment*, 149, 2019.

https://www.ren21.net/wp-content/uploads/2019/05/gsr_2019_full_report_en.pdf

²³ Kate Larsen et al., “China’s Greenhouse Gas Emissions Exceeded the Developed World for the First Time in 2019,” *Rhodium Group*, 6 May 2021.

<https://rhg.com/research/chinas-emissions-surpass-developed-countries/>

²⁴ “China: Analysis,” *U.S. Energy Information Administration*, 8 Aug 2022.

<https://www.eia.gov/international/analysis/country/CHN>

of coal, which it has shown it is willing to use, but relatively little oil and gas deposits, which is a problem considering China consumes more oil than it produces.²⁵ Because China also largely operates outside of the West, except for its participation in the United Nations, it does not often align itself with sanctions imposed by Western countries. This extends to Russia, with which China has a long trade history, especially for oil and gas. While the West has largely ended trade, including oil, with Russia, China increased its purchasing by 22% over the previous year as a result of Russian oil prices falling.²⁶ The West's shunning of Russian oil and natural gas in an attempt to support Ukraine by harming the Russian economy might be indirectly benefitting China by lowering the price of oil from their second largest supplier. China can potentially unload any unused fossil fuels back onto the market and profit off of any markup that it places on the oil, or more likely natural gas, as China primarily uses coal and oil for power. Although government officials have recently ordered liquefied natural gas importers to stop reselling to European countries to ensure its domestic supply, China was widely suspected of reselling cheaply bought Russian natural gas to Europe as Germany and other European countries looked to replace the deficit left by Russia.^{27 28}

Similar to China, India has shown that it is willing to purchase Russian oil and gas despite efforts from the West to dissuade the country. Since the invasion of Ukraine, the share of oil imported in India from Russia has risen from 2% to 23% in September.²⁹ Indian officials have stated that they plan to continue to purchase Russian oil as they want to purchase the cheapest available oil on the market. China's continued relationship with Russia after Western sanctions is not surprising considering their long history of economic partnership. However, India's continued relationship is more surprising given its comparatively closer relationship with the West through the Quad and other partnerships. India's insistence on supporting its own people through the purchase of cheap Russian oil further supports the realist argument that the world is anarchical and that countries will act to best benefit themselves.

²⁵ "Crude Petroleum in China," *Observatory of Economic Complexity*, 2020.

<https://oec.world/en/profile/bilateral-product/crude-petroleum/reporter/chn>

²⁶ Chen Aizhu, "Russian oil supplies to China up 22% on year, close second to Saudi – data," *Reuters*, 23 October 2022.

<https://www.reuters.com/business/energy/russian-oil-supplies-china-up-22-year-close-second-saudi-data-2022-10-24/>

²⁷ Sha Hua, "China Is Rerouting U.S. Liquefied Natural Gas to Europe at a Big Profit," *The Wall Street Journal*, 3 Oct 2022.

<https://www.wsj.com/articles/china-is-rerouting-u-s-liquefied-natural-gas-to-europe-at-a-big-profit-11664772384>

²⁸ Jo Harper, "Is China reexporting Russian gas to Europe?," *Deutsche Welle*, 16 Sep 2022.

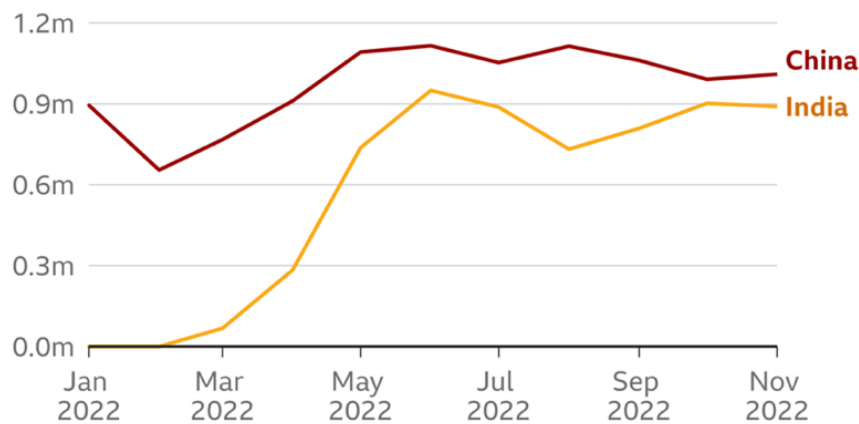
<https://www.dw.com/en/is-china-reexporting-russian-gas-to-europe/a-63146922>

²⁹ Shivam Patel et al., "India says Russia oil deals advantageous as Yellen visits Delhi," *Reuters*, 8 Nov 2022.

<https://www.reuters.com/business/energy/buying-russian-oil-is-indias-advantage-foreign-minister-2022-11-08/>

Russian oil imports by India and China

Oil imported, million barrels-per-day



Source: Kpler



Russian oil imports from January to November³⁰

International Lessons Applied to Domestic Policy

Russia's invasion of Ukraine and its impact on Germany, Europe as a whole, and international energy prices should serve as a wake-up call to the United States and countries around the world about the importance of having a robust energy policy. Germany's heedless decommissioning of nuclear power stations before being able to replace the loss with domestic production left the country overly dependent on Russian natural gas as their primary source. As President Trump predicted, Germany became dependent on Russia and had to scramble as it cut off trade with Russia. Germany also serves as a cautionary tale about pursuing unrealistic goals in renewable energy or, at the very least in an unrealistic timeline. While scientists largely agree that climate change is real and is taking place, rational countries should not pursue solutions that undermine its national security. After all, a country cannot pursue "climate justice" if it is invaded by its less climate-concerned neighbor. This does not mean that investing in renewable resources is fruitless or even harmful to a country. China has shown that renewable resources can contribute to providing a sizeable increase in energy capacity and bolster reserves, though it is important not to abandon other nonrenewable sources prior to solidifying a carbon-neutral energy grid, such as Germany decommissioning its nuclear plants too early.

The Biden administration has signaled an intention to aggressively pursue renewable energy, similar to Germany.³¹ It appears that the United States, like Germany, has an energy policy that is driven by a climate agenda. This climate agenda is arguably directly in opposition to national security, as it demands that the United States discontinue domestic production of oil and gas, which the United States is hugely dependent on. President Biden's National Security Strategy argues

³⁰ Shruti Menon, "Ukraine crisis: Who is buying Russian oil and gas?" *BBC*, 6 Dec 2022.

<https://www.bbc.com/news/world-asia-india-60783874>

³¹ "Biden Harris National Security Strategy," *The White House*, Oct 2022.

<https://www.whitehouse.gov/wp-content/uploads/2022/10/Biden-Harris-Administrations-National-Security-Strategy-10.2022.pdf>

“The necessity to protect forests globally, electrify the transportation sector, redirect financial flows and create an energy revolution to head off the climate crisis is reinforced by the geopolitical imperative to reduce our collective dependence on states like Russia that seek to weaponize energy for coercion.”³²

It seems that, if anything, Russia will be celebrating the United States' hasty transition to renewable resources, which are more costly and less readily available than natural gas. Furthermore, the Biden administration has indicated that it is more interested in curbing domestic production of oil and gas than reducing the use of it. The Biden administration has indicated that it will still purchase oil from Venezuela and Iran, authoritarian countries that staunchly oppose the United States and the West.³³ Not only does a climate agenda seem to be driving the United States' energy policy, but it is enabling its historic enemies in the process. While China and Russia have shown that they are willing to use any resource available to them, including renewable resources when cost-effective, the United States has shown that it is willing to voluntarily restrict production and growth while outsourcing its fossil fuels, similar to Germany. The United States purchasing oil from Iran and Venezuela not only enables those authoritarian regimes directly but indirectly benefits Russia as well. Just as Russia is able to sell its oil and gas through China, which resells it to the global market, Russia is capable of doing the same with Iran and Venezuela.

The United States can pursue both a strong, stable oil and gas market while also investing in renewable resources as China has. China shows that a country can act rationally in pursuing policies that best benefit itself while also leading in renewable energy capacity. The United States is in an especially unique and advantageous position because of its large domestic reserves of both oil and natural gas. Phasing out oil and gas production and outsourcing it to other countries, who are enemies of the United States no less, is the same mistake that Germany made when purchasing gas from Russia. It not only weakens the United States in its production and growth capabilities but also strengthens its enemies as well. Even for climate-conscious countries such as the United States, the goal should be energy security first and climate solutions second, as it needs to maintain global hegemonic control if it wishes to influence other countries to pursue renewable resources. China's and India's refusal to take part in sanctions against Russia and their continued purchase of Russian oil and gas demonstrates that the United States' competitors are more interested in sustaining economic growth than appeasing the West and its demands. The United States seems to make the similar mistake of believing that other non-Western countries will adopt limiting restrictions as it has. If the United States continues to cut its production and growth in the belief that others will follow, it will concede hegemonic influence to China and Russia. Furthermore, it will lose in its ambitions to convince the rest of the world to pursue renewable energy as well.

For the United States to be successful in leading a global change to renewable resources, it must currently use the best available mix of resources at its disposal. Though a topic of much debate, natural gas has proven to be an excellent alternative to oil and coal, burning much cleaner and driving down CO₂ and greenhouse gas emissions, with the added benefit of the United States having large deposits available domestically.³⁴ Natural gas provides the United States and the

³² Ibid, 9.

³³ Katie Tubb et al., “Venezuela Is Bizarre Piece of Biden’s Incoherent Energy Policy Puzzle,” *Heritage Foundation*, 2 Dec 2022.

<https://www.heritage.org/americas/commentary/venezuela-bizarre-piece-bidens-incoherent-energy-policy-puzzle>

³⁴ Stephen Moore, “Natural Gas, America’s Wonder Fuel,” *Heritage Foundation*, 4 Sep 2019.

<https://www.heritage.org/coal-oil-natural-gas/commentary/natural-gas-americas-wonder-fuel>

world with a fuel that is much more environmentally friendly than coal and gas that can be used to transition to renewable resources. Because the United States has large deposits, it can also transport it overseas as liquified natural gas, a source of great wealth for the United States, strengthening Western allies and reducing the influence of other exporters and resellers such as Russia and China. The newly constructed liquified natural gas terminal in Germany provides the United States with the opportunity to export its natural gas there, though only if policy allows for efficient domestic production. Another benefit of natural gas is that it can be easily stored and quickly used to fill in for a drop in production of renewable resources or during peak hours when power draw exceeds renewable capacity.

In the same vein, nuclear energy provides countries with clean, nearly infinite, and exceptionally stable energy. Concerns regarding nuclear energy largely come from two of the most famous incidents, Fukushima and Chernobyl. Issues will always exist for nuclear energy because of the high stakes of incidents; however, the two most cited incidents are largely the result of poor design and planning. The fear provoked by environmental advocates is largely unfounded and based on misconceptions.³⁵ Additionally, the United States is well positioned because of the vast areas of seismically stable and uninhabited land, which can mitigate any potential disaster and the strict regulatory environment around safety in the United States. Like natural gas, nuclear energy has the ability to help the United States and countries around the world transition to renewable resources while maintaining and adapting to the increasing power demand. Just as policymakers must balance the energy needs of their country and the security implications of energy policy with environmental concerns, so too must environmentalists with their desire for green energy with viable solutions and pathways to purely green energy.

Conclusion

Countries around the world, regardless of their regional affiliation or international organization membership, including China, India, Germany, the United States, etc., must ensure that their energy policy is secure and resistant to global and supply chain shocks. Germany serves as an example of a country becoming overly dependent on a single source outside of its control for energy and poorly balancing its environmental concerns with energy security. Russia's invasion of Ukraine and the international community's subsequent sanctions against Russian energy caused immediate insecurity in the German energy market with near catastrophic effects, which are very much still a possibility. Because of Germany's rapid decommissioning of nuclear and fossil fuel production, Germany was forced to import their energy as the development of their renewable replacements could not match the speed of the decommissioning of old sources. The situation showed that climate ambitions must be realistic and not detrimental to the prosperity of their citizens, inhibit the growth of their society, or cause financial stress.

The international energy market's reaction to the Russian invasion of Ukraine also shed light on issues with liberal theories of international unison on global issues and cooperation in addressing climate change. Though discussed as an opportunity to end dependence on fossil fuels, countries such as India and China used the invasion and the subsequent hit to Russian oil prices as an opportunity to purchase cheap oil and gas to either use or resell on the global market. Despite

³⁵ Michael Shellenberger, "It Sounds Crazy, But Fukushima, Chernobyl, and Three Mile Island Show Why Nuclear Is Inherently Safe," *Forbes*, 11 Mar 2019.

<https://www.forbes.com/sites/michaelshellenberger/2019/03/11/it-sounds-crazy-but-fukushima-chernobyl-and-three-mile-island-show-why-nuclear-is-inherently-safe/?sh=2b2c3c921688>

the West's obsession with reducing emissions and climate change in general, countries outside of the West have shown that they still care more about growth and energy security. China, the leader in renewable energy production, also leads in CO₂ and greenhouse gas emissions and has shown that its interest in renewables is not to entirely replace fossil fuel use but to supplement it for its growth. Even India, which is more aligned with the West than China, has said that it will continue to buy Russian oil to do what is best for its people and economy.

Lastly, the United States cannot fall victim to the same mistakes as Germany and other European countries disrupted by the war in Ukraine. The United States has ample oil and gas resources to sustain both its own consumption and the ability to export it globally to further reduce its allies' dependence on Russian oil and gas. The United States can still pursue renewable resource production and investment, but it should do so in conjunction with existing and plentiful resources like natural gas and nuclear. China serves as an example of the strategic use of renewable resources, using it to further bolster its energy supply. Most importantly, the United States cannot directly fund its adversaries by lifting restrictions and purchasing oil from them to supplement declines in domestic production as a result of climate change policy. The United States needs to maintain energy security through independence and foster a regulatory environment where natural gas exploration and production can exist along with the growth of renewable resources.

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