

Contention 1 is Ukraine

The Ukraine war persists

Brennan TWO DAYS AGO (David Brennan is Newsweek's Diplomatic Correspondent covering world politics and conflicts from London with a focus on NATO, the European Union, and the Russia-Ukraine War. David joined Newsweek in 2018 and has since reported from key locations and summits across Europe and the South Caucasus. This includes extensive reporting from the Baltic, Nordic, and Central European regions, plus Georgia and Ukraine. Originally from London, David graduated from the University of Cambridge having specialized in the history of empires and revolutions. You can contact David at d.brennan@newsweek.com and follow him on Twitter @DavidBrennan100. 3/26/2025, "Ukraine 'doesn't trust' Russia, Zelenskyy warns as strikes follow ceasefire progress", ABC News, <https://abcnews.go.com/International/ukraine-doesnt-trust-russia-zelenskyy-warns-strikes-follow/story?id=120162569>

<https://abcnews.go.com/International/ukraine-doesnt-trust-russia-zelenskyy-warns-strikes-follow/story?id=120162569> DOA 3/26/25)SRT

LONDON -- The success of a nascent potential agreement between Ukraine and Russia to pause naval and energy infrastructure attacks will depend on Moscow, Ukrainian President Volodymyr Zelenskyy said, warning that Kyiv has no trust for Russian President Vladimir Putin after more than three years of full-scale war. "Now, results are needed from Russia," Zelenskyy said in his evening address on Tuesday. "We do not trust them. And frankly -- the world doesn't trust Russia. And they must prove that they are truly ready to end the war -- ready to stop lying to the world, to President (Donald) Trump and to America." "How Russia behaves in the coming days will reveal a lot -- if not everything," he said. "If there are air raid alerts again, if there is renewed military activity in the Black Sea, if Russian manipulations and threats continue -- then new measures will need to be taken, specifically against Moscow," Zelenskyy said. A worker cuts metal structures during repair works of a substation destroyed by a Russian drone strike in undisclosed location in Ukraine on March 25, 2025. Evgeniy Maloletka/AP Russia and Ukraine "agreed to ensure safe navigation, eliminate the use of force and prevent the use of commercial vessels for military purposes in the Black Sea," according to White House readouts, published Tuesday after three days of meetings with representatives from Kyiv and Moscow in Saudi Arabia. The nations also agreed to "develop measures to implement the agreement to ban strikes against energy facilities in Russia and Ukraine," the White House said. Trump said, "We are making a lot of progress." Drone strikes continued through Tuesday night into Wednesday despite the apparent progress on a partial ceasefire agreement. Ukraine's air force said Russia launched 117 drones into the country overnight, of which 56 were shot down and 48 lost in flight. "Sumy, Dnipropetrovsk, Kirovohrad and Cherkasy regions were affected by the Russian attack," the air force wrote on Telegram. In Russia, the Defense Ministry said its forces downed nine Ukrainian drones, including two over the Black Sea. In the western Belgorod region, Governor Vyacheslav Gladkov said a drone attack wounded one person and broke the windows of several buildings. On Wednesday morning, Zelenskyy said in a statement posted on Telegram that "there were 117 more pieces of evidence in our sky that Russia is dragging out this war -- 117 strike drones." He added, "To launch such large-scale strikes after ceasefire negotiations is to show everyone in the world with all the obviousness that Moscow is not going to make a real peace." MORE:

Russia and Ukraine agreed to 'eliminate the use of force' in the Black Sea, White House says following talks "Strong steps from the world and clear pressure on Russia are needed," Zelenskyy continued.

Russian nuclear exports fund the crisis

Press 23 (Associated Press, The Associated Press (AP))(4) is an American not-for-profit news agency headquartered in New York City. Founded in 1846, it operates as a cooperative, unincorporated association, and produces news reports that are distributed to its members, major U.S. daily newspapers and radio and television broadcasters. Since the award was established in 1917, the AP has earned 59 Pulitzer Prizes, including 36 for photography. The AP is also known for its widely used AP Stylebook, its AP polls tracking NCAA sports, sponsoring the National Football League's annual awards, and its election polls and results during US elections.

08/10/2023 "Putin profits off U.S. and European reliance on Russian nuclear fuel", Outrider,
<https://outrider.org/nuclear-weapons/articles/putin-profits-us-and-european-reliance-russian-nuclear-fuel> DOA 3/26/25)HS

WASHINGTON (AP) — The U.S. and its European allies are importing vast amounts of nuclear fuel and compounds from Russia, providing Moscow with hundreds of millions of dollars in badly needed revenue as it wages war on Ukraine. The sales, which are legal and unsanctioned, have raised alarms from nonproliferation experts and elected officials who say the imports are helping to bankroll the development of Moscow's nuclear arsenal and are complicating efforts to curtail Russia's war-making abilities. The dependence on Russian nuclear products — used mostly to fuel civilian reactors — leaves the U.S. and its allies open to energy shortages if Russian President Vladimir Putin were to cut off supplies. The challenge is likely to grow more intense as those nations seek to boost production of emissions-free electricity to combat climate change. "We have to give money to the people who make weapons? That's absurd," said Henry Sokolski, executive director of the Washington-based Nonproliferation Policy Education Center. "If there isn't a clear rule that prevents nuclear power providers from importing fuel from Russia — and it's cheaper to get it from there — why wouldn't they do it?" Russia sold about \$1.7 billion in nuclear products to firms in the U.S. and Europe, according to trade data and experts. The purchases occurred as the West has leveled stiff sanctions on Moscow over its 2022 invasion of Ukraine, blocking imports of such Russian staples as oil, gas, vodka and caviar. The West has been reluctant to target Russia's nuclear exports, however, because they play key roles in keeping reactors humming. Russia supplied the U.S. nuclear industry with about 12% of its uranium last year, according to the U.S. Energy Information Administration. Europe reported getting about 17% of its uranium in 2022 from Russia. Reliance on nuclear power is expected to grow as nations embrace alternatives to fossil fuels. Nuclear power plants produce no emissions, though experts warn that nuclear energy comes with the risk of reactor meltdowns and the challenge of how to safely store radioactive waste. There are about 60 reactors under construction around the world — 300 more are in the planning stages. Many of the 30 countries generating nuclear energy in some 440 plants are importing radioactive materials from Russia's state-owned energy corporation Rosatom and its subsidiaries. Rosatom leads the world in uranium enrichment, and is ranked third in uranium production and fuel fabrication, according to its 2022 annual report. Rosatom, which says it is building 33 new reactors in 10 countries, and its subsidiaries, exported around \$2.2 billion worth of nuclear energy-related

goods and materials last year, according to trade data analyzed by the Royal United Service Institute, a London-based think-tank. The institute said that figure is likely much larger because it is difficult to track such exports. Rosatom's CEO Alexei Likhachyov told the Russian newspaper Izvestia the company's foreign business should total \$200 billion over the next decade. That lucrative civilian business provides critical funds for Rosatom's other major responsibility: designing and producing Russia's atomic arsenal, experts say. Ukrainian officials have pleaded with world leaders to sanction Rosatom to cut off one of Moscow's last significant funding streams and to punish Putin for launching the invasion. Ukrainian President Volodymyr Zelenskyy again pressed Western leaders to target Rosatom after Russian forces captured the Zaporizhzhia nuclear power plant. Rosatom is running the partially shutdown plant, and the International Atomic Energy Agency has repeatedly warned that a radiation leak at the Russian-occupied facility could be a major disaster. "Ukraine does not understand why sanctions have not yet been introduced against Rosatom and its leadership," Zelenskyy said in May, "when representatives of this company continue to occupy Zaporizhzhia Nuclear Power Plant and put our general security at risk

The United States lack of nuclear energy investment allows Russia to remain export competitiveness

Sallee 21 (Kyle Sallee ,Currently, I study US foreign policy and national security at the American University School of International Service as a Master's Degree student. My focus includes US nuclear policy and security strategies within the post-Soviet space. Prior to earning my Bachelor of Arts degrees in political science and history from Portland State University, I served as a Research Assistant Intern with the Partnership for Global Security (PGS) where I utilized my Russian language skills to conduct extensive research of the Russian Nuclear Exports Control Regime. This research helped to inform the PGS Global Nexus Initiative Report and was recognized for its breadth and detail. My research includes analysis of the Russian national identity, Russian nuclear exports, the Soviet invasion of Afghanistan (1979), and Russian engagement in the existing European security architecture. I have been invited to present research at the University of California at Los Angeles as well as the University of Pittsburgh, in addition to publishing work in the Armstrong Undergraduate Journal of History.

February 5, 2021, Regaining American Competitiveness in the Global Nuclear Power Market, American University

<https://www.american.edu/sis/centers/security-technology/regaining-american-competitiveness-in-the-global-nuclear-power-market.cfm> DOA 3/23/25)HS

The vacuum left by the US withdrawal from the global nuclear energy market presents new foreign policy openings for its rivals. Rosatom is piloting its "Build-Own-Operate," or BOO model in Turkey, which offers Russian state-backed financing for the construction of a nuclear reactor in exchange for control of its energy-dissed interest in similar quid-pro-quo structures. Beyond financing, reactor exports allow countries to form 100-year strategic relationships that can span construction, operation, and decommissioning of nuclear reactors and then influence a client's nuclear regulations. These relationships are already being cultivated by Rosatom and CNNC across Asia, Eastern Europe, and South America.

It is the United States LAST CHANCE to regain energy dominance

Rodriguez 22 (Eric Rodriguez, no author quals, he is writing for SIT Graduate Institute which is a school for international training, August 2022, "The Eastern Atomic Rise: Defining Nuclear Hegemony in a

Multilateral World”, SIT Graduate Institute,

<https://digitalcollections.sit.edu/cgi/viewcontent.cgi?article=4303&context=capstones> DOA 3/23/25)HS

On a global scale, nuclear energy is “already playing a role in energy geopolitics”,(U.S. Senate, 2019) characterized by the “decline of U.S. nuclear export competitiveness”(Nakano, 2020) over the last two decades while Russia and China(has) have been aggressively pursuing nuclear exports. Sallee (2021) notes that with minimal uranium production, an aging nuclear reactor fleet, and diminishing technological and professional capacity, the U.S. “has relinquished its competitive global position as the world leader in nuclear energy to Russian and Chinese state-owned enterprises.” According to Mazarr et al. (2018) of the RAND Corporation, Russia’s “energy diplomacy” of supplying technology and nuclear fuel, and China’s Belt and Road Initiative (BRI), which includes a strong emphasis on nuclear energy exports, are evidence not only of Russia and China’s emergence as key players in the energy landscape but also a renewed global focus on nuclear energy. Sallee argues that the U.S.’s withdrawal from the global nuclear energy market has created a power vacuum in which rivals such as Russia and China are in a capacity to fill, with alarming implications for foreign policy. Poneman et al. are more blunt, declaring that the U.S. “has lost its leadership – and is on the precipice of losing it permanently.”

The aff allows the US to compete in the current market

Energy ND (US Department of Energy, "Restoring America's Competitive Nuclear Energy Advantage", ND, No Publication,

<https://www.energy.gov/articles/restoring-americas-competitive-nuclear-energy-advantage#:~:text=First%2C%20the%20U.S.%20Government%20will,nuclear%20energy%20partner%20of%20choice> DOA 3/26/25) HS

America has lost its competitive global position as the world leader in nuclear energy to state-owned enterprises, notably Russia and China, with other competitor nations also aggressively moving to surpass the United States (U.S.). The Strategy to Restore American Nuclear Energy Leadership is designed to restore America’s competitive nuclear advantages. It is in the U.S. national security interest to preserve and grow the assets and investments of the entire U.S. nuclear enterprise. We can do so by addressing domestic and international security interests, expanding nuclear generation, minimizing commercial fleet fiscal vulnerabilities, assuring defense needs for uranium, and leveling the playing field against state-owned enterprises. First, the U.S. Government will take bold action to revive and strengthen the uranium mining industry, support uranium conversion services, end reliance on foreign uranium enrichment capabilities, and sustain the current fleet, removing strategic vulnerabilities across the nuclear fuel cycle and restoring a world-class workforce to provide benefits to the U.S. and to compete in the international market. Next, the U.S. Government will leverage American technological innovation and advanced nuclear Research, Development, and Demonstration (RD&D) investments to accelerate technical advances and regain American nuclear energy leadership. Finally, the U.S. Government will move into markets currently dominated by Russian and Chinese State Owned Enterprises (SOE) and recover our position as the world leader in exporting best-in-class nuclear energy technology, and with it, strong non-proliferation standards. We will restore American nuclear credibility and demonstrate American commitment to competing in contested markets and repositioning America as the responsible nuclear energy partner of choice

Empirics prove the US can compete we just need more capacity

Dolzikova and Watling 24 (Darya Dolzikova and Dr Jack Watling, Darya Dolzikova is a Research Fellow with RUSI's Proliferation and Nuclear Policy programme. Her research focuses on the strategic aspects of civil nuclear and nuclear weapons technology. Darya's particular areas of expertise are on the Iranian nuclear programme and on military threats to nuclear facilities. She has also conducted extensive work on broader nuclear proliferation trends, the use of sanctions as a counter-proliferation tool and Russia's role in global nuclear supply chains. Dr Jack Watling is Senior Research Fellow for Land Warfare at the Royal United Services Institute. Jack works closely with the British military on the development of concepts of operation, assessments of the future operating environment, and conducts operational analysis of contemporary conflicts. "Mess Around and Find Out: The Need to Decouple from Rosatom" 9/10/24, RUSI,

<https://www.rusi.org/explore-our-research/publications/commentary/mess-around-and-find-out-need-d-ecouple-rosatom> DOA 3/27/25)SRT

Cutting Russia out of North American, European and global nuclear supply chains is not just a moral obligation in light of Rosatom's role in Russia's war on Ukraine. It is a matter of energy security for customer countries and of curtailing the further spread of Moscow's influence around the globe. Decoupling from Russia will have to be pursued through a series of technical and political efforts, and will require involvement from both industry and governments. Western and friendly countries must be able to offer attractive alternatives to Russian technology and materials across the nuclear fuel cycle. Some efforts to this end are already ongoing. For instance, the US company Westinghouse Electric offers alternatives to Russian-produced VVER fuel, which has been deployed for use in Ukrainian reactors for several years now. As mentioned earlier, a number of other European utilities that have historically sourced their VVER fuel from Russia have also recently contracted with Westinghouse. There are also alternatives to Russian enrichment and conversion services, as well as non-Russian reactor manufacturers. Besides the technical ability to replace Russian technology and materials across the nuclear fuel supply chain, Western and friendly suppliers will need to ensure that they have sufficient capacity to cover domestic needs as well as demands for export – not just in Europe and North America, but also in emerging markets. While exact and comprehensive data on enriched uranium and nuclear fuel stockpiles for individual countries and utilities is difficult to access from public sources, it seems that European utilities may have sufficient material to maintain operations in the short term, while waiting for additional non-Russian enrichment capacity to come online. US utilities are likely to have more trouble in bridging disruptions. Governments looking to diversify away from Russia must take care not to create dependencies on suppliers who may pose similar energy security concerns in the future. Where needed, further growth of alternatives to Russian supply can be supported by competitive government funding opportunities to expand production, as well as assurances of long-term demand by customers and governments. Additional uranium enrichment capacity is due to come online in the US in 2025, with expansions of enrichment facilities also planned in France, the Netherlands and Germany thereafter. In the meantime, strategic enriched uranium reserves should be used to replace Russian imports, where available. The extent to which contractual or commercial concerns – rather than availability of alternative supply – are precluding individual utilities from diversifying away from Russia must be assessed by governments. If and where such instances exist, national authorities may consider offering legal, regulatory or economic support to facilitate transition away from Russia. Otherwise, governments

may decide that severing relations with Russia's nuclear industry and prioritising energy, national and international security concerns is worth whatever commercial concerns may arise as a result. Growing interest in nuclear as a source of sustainable energy production will also hopefully encourage expansion of Western and friendly supply. However, as China looks to play a greater role in global nuclear supply chains, Western suppliers will face competition. Chinese exports of enriched uranium to the US have increased significantly in the last two years compared to pre-2022 figures. In 2024, China also reportedly made its first export of enriched uranium to Europe in decades. There are indications that Russia could be facilitating some of China's ambitions. Governments looking to diversify away from Russia must take care not to create dependencies on suppliers who may pose similar energy security concerns in the future. Meanwhile, Western and other friendly suppliers need to look at expanding their market shares not only in Europe and North America but also in emerging markets in Africa and Asia. Ultimately, continued engagement with Rosatom not only benefits a major state enterprise that has contributed to Russian aggression in Ukraine, but it also challenges countries' energy and national security interests. Every effort must be made by Ukraine's European and North American partners to terminate these relationships as quickly as possible, while also highlighting the risks of doing business with Rosatom to potential future customers and offering attractive alternatives. Some commendable efforts to this end are already underway, but there is room to do more.

AND countries want to shift---new US models will give the incentive

Lorenzini 25 (Marina Lorenzini, is responsible for the (MEI)'s research programs, which include several fellowship cohorts, faculty and student research grants, and MEI policy reports and private roundtables. Her research focuses on the intersection of Russia's nuclear energy exports, sovereign debt profiles, and sanctions across the Mediterranean and Persian Gulf regions. She has published articles with the Bulletin of the Atomic Scientists, Lawfare, and the Atlantic Council. Alongside Sahar Nowrouzadeh, Marina led the Belfer Center's Iran Working Group from 2021 - 2023. She has also held roles with the Belfer Center's Project on Managing the Atom and Senior Fellow Dan Poneman. Prior to joining the Belfer Center, she held positions at McLarty Associates, the Nuclear Threat Initiative, the International Human Rights Clinic at Harvard Law School, and Al Akhawayn University in Ifrane, Morocco. Marina holds a M.A. in Law & Diplomacy from the Fletcher School at Tufts University. She wrote her thesis on Russian-Turkey energy trade, with a focus on the Akkuyu nuclear power plant. She earned her B.A. from Franklin University Switzerland as well as an Arabic Language and Linguistics Certificate from the University of Pittsburgh. Having used the languages extensively throughout her career, she is a fluent Italian speaker, with advanced proficiency in Arabic (MSA and Levantine dialect), and has a strong proficiency in Latin and Persian translation.

"The US can reduce Russia's nuclear energy—and geopolitical—influence", 3/7/25, Energy Source, <https://www.atlanticcouncil.org/blogs/energysource/the-us-can-reduce-russias-nuclear-energy-and-geo-political-influence/> DOA 3/23/25)SRT

For the past two decades, Russia has wielded its nuclear energy technologies—through its state-owned conglomerate Rosatom—as a strategic export to exert geopolitical leverage. Rosatom has been a dependable, cost-effective, and technically competent partner for stakeholders around the world, enabling its dominant market position. Substantial up-front project finance and loans have contributed to Rosatom's international success. Bangladesh, Belarus, Egypt, Hungary, and Turkey have benefitted

from multibillion-dollar loans from Russia's State Bank for Development and Foreign Economic Affairs (Vnesheconombank). State sponsorship allows Rosatom to offer favorable loan terms—such as a 3 percent interest rate—that competitors cannot match. Meanwhile, any analogous form of concessional loans for infrastructure projects has not been a part of the development strategy among Rosatom's competitors. However, some countries that previously embraced the vision of energy integration with Russia continue to shift investments away from Russian partners. Countries tied to Rosatom for their nuclear supplies are keen to diversify—if not extract themselves entirely—from energy dependence on Russia. Additionally, Vnesheconombank's SWIFT ban and US sanctions designation increases risks for loan recipients. The United States—and allies with nuclear industries such as France and South Korea—could further convert the commercial interest for non-Russian products into strategic wins by focusing on countries with Soviet-era reactors. Countries and utilities often cite project finance as the primary barrier for building, but the new political momentum in the United States could galvanize both sufficient funds and (for) new models across the public and private sectors.

The impact is Ukraine

Dolzikova and Watling 24 (Darya Dolzikova and Dr Jack Watling, Darya Dolzikova is a Research Fellow with RUSI's Proliferation and Nuclear Policy programme. Her research focuses on the strategic aspects of civil nuclear and nuclear weapons technology. Darya's particular areas of expertise are on the Iranian nuclear programme and on military threats to nuclear facilities. She has also conducted extensive work on broader nuclear proliferation trends, the use of sanctions as a counter-proliferation tool and Russia's role in global nuclear supply chains. Dr Jack Watling is Senior Research Fellow for Land Warfare at the Royal United Services Institute. Jack works closely with the British military on the development of concepts of operation, assessments of the future operating environment, and conducts operational analysis of contemporary conflicts. "Mess Around and Find Out: The Need to Decouple from Rosatom" 9/10/24, RUSI,

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Cutting Rosatom's revenue will be the final blow to Russia

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Stopping the war is critical

Dejong 25 (Jenna Dejong, Jenna deJong is a Newsweek journalist based in Denver, Colorado. Jenna joined Newsweek in May 2024. She is a journalism graduate of Missouri State University and specialized in SEO strategy. "How many people have died in the Russia-Ukraine war?", 02/19/2025, <https://www.newsweek.com/people-died-casualties-russia-ukraine-war-update-2033371> DOA 3/27/25)DM

The war between Ukraine and Russia has led to staggering human losses, with estimates placing the total number of dead and wounded at nearly one million. Quantifying injuries and casualties has been a difficult task throughout the war—the true scale of the losses remains uncertain due to conflicting reports and limited access to reliable data. As discussions between world powers continue, including a recent U.S.-Russia meeting that excluded Ukraine, concerns persist over how the war will ultimately be resolved and what the lasting impact will be on both nations. Why It Matters The war between Ukraine and Russia has resulted in an immense number of casualties on both sides. According to the Wall Street Journal, estimates from September place the total number of dead and wounded at approximately one million. Given the challenges in verifying figures, the true extent of losses remains unclear. The impact of these staggering numbers will shape the demographic and economic futures of both nations for years to come.

Contention 2 is Climate

The climate is in peril

Nuccitelli 24 (Dana Nuccitelli Dana received a bachelor's degree in astrophysics @ UC Berkeley and a master's degree in physics @ UC Davis before becoming an environmental scientist. The 2024 'State of the climate' report says climate scientists are more worried than ever and calls for 'transformative science-based solutions across all aspects of society.<https://yaleclimateconnections.org/2024/10/the-planet-is-on-the-brink-of-an-irreversible-climate-disaster-scientists-warn/>)SRT+ALA

Earth's climate in 2024 is "in a major crisis with worse to come if we continue with business as usual," a team of 14 climate scientists warned in "The 2024 state of the climate report: Perilous times on planet Earth." The report did not sugarcoat their view of the dangers humanity is facing. "We are currently going in the wrong direction and our increasing fossil-fuel consumption and greenhouse gas emissions are driving us toward a climate catastrophe. We fear the danger of climate breakdown." They did note a few positive indicators like clean energy production. "Of course, the situation is not hopeless," wrote Harvard science historian and study co-author Naomi Oreskes via email. "What we want people to understand is that, while there has been progress – particularly in the price and deployment of renewables – it's not nearly enough. And the atmosphere does not respond to our intentions. It responds to chemistry." The report calls for "rapidly phasing down fossil fuel use" by ratcheting up the carbon price in wealthy countries and using some of the proceeds to fund policies to stop climate change and adaptation programs to reduce damage from climate disasters. It also urges sharp reductions in emissions of methane, a potent heat-trapping gas, to "slow the near-term rate of global warming, helping to avoid tipping points and extreme climate impacts." Without a course correction, the report warned, "climate change could cause many millions of additional deaths by 2050." Average global surface air and ocean temperatures shattered records in 2023, and are on track to do so again in 2024.

Government investment into nuclear energy is key

Lehotský 24 (Lukáš Lehotský, Assistant professor, Department of International Relations and European Studies, "Climate goals require a step change in nuclear investment", 11/08/2024, World Economic Forum,

<https://www.weforum.org/stories/2024/11/meeting-global-climate-goals-requires-a-step-change-in-nuclear-investment/>)HDS

We will need to build a greater number of large reactors than the 415 that operate today and introduce a significant number of small modular reactors. Small modular reactors are not yet available on the market but will need to account for a quarter of the increased capacity in 2050 if climate targets are to be met. Massive investment needed to scale nuclear To fulfil this demand will necessitate a step-change in financing. Between 2017-2023 the world spent an average of about \$50 billion on nuclear energy every year. That must increase to \$125 billion from 2030 onwards. Tripling nuclear capacity by 2050 would require yearly investments of about \$150 billion. To put that into perspective, it is just a tenth of what is needed every year to triple renewable capacity by 2030. Nuclear energy is sometimes pitted against wind and solar energy, with some opponents arguing that a dollar of investment in nuclear energy is a dollar less invested in wind and solar energy. That's not true. Because nuclear is available 24-7, investing in it actually facilitates investment in intermittent renewables such as wind and solar. Having nuclear power in the grid lowers overall costs because it negates the need for expensive battery storage and

investment in overcapacity. A nuclear power plant built today will pay off by providing low-carbon energy at affordable rates for about a century. No other scalable, proven, low-carbon energy source can do that, making investing in nuclear highly attractive to those who can take a long-term view. In other words, financing nuclear power plants, particularly the upfront costs, requires government participation.

Nuclear energy is comparatively better than alternatives

Laffan 24 (Katy Laffan, 15 years in progressively responsible roles in news writing, audio/video production and strategic communications, Successful journalism career before moving into government press office Five years as Communications Manager at major United Nations agency Wide ranging experience in video storytelling for the United Nations - Operational expertise in video production and creative direction of multimedia projects Messaging, campaigning, outreach and stakeholder engagement focus -Private sector, government and UN experience "International Day of Clean Energy: Why Nuclear Power?", 01/25/2024, No Publication,

<https://www.iaea.org/newscenter/news/international-day-of-clean-energy-why-nuclear-power>)HSD

Nuclear energy already provides around a quarter of the world's low-carbon electricity. It offers large amount of reliable, dispatchable power providing stability and resilience to the electrical grid and backing up variable renewables such as solar and wind when sunshine or wind are lacking. According to a 2022 report from the International Energy Agency (IEA): "Nuclear energy can help make the energy sector's journey away from unabated fossil fuels faster and more secure." Wind and solar are expected to lead the push to replace fossil fuels. But IEA experts advise that electricity grids also need more stable, resilient and dispatchable power to keep the flow of energy going non-stop. This cannot currently be provided by renewables alone. Gas has been providing this stability, but it still emits greenhouse gases. Hydropower can also provide grid stability, but only in specific environments. Like hydro, nuclear power does not release any carbon during its use. Aside from its low carbon credentials, nuclear power has other features that further support energy supply security and the clean energy transition. For example, one large nuclear power plant can replace multiple coal-fired power plants to provide the same level of energy. Or small modular reactors could be slotted in to replace the old coal-fired plants of similar size, on the same site. Energy-intensive industries, such as steel production, which use coal for heating and hydrogen production, could also be decarbonized using nuclear power, thanks to the ability of advanced reactors to produce high temperature steam. Nuclear electricity production costs are less sensitive to changes in fuel prices than electricity from oil and gas. Uranium is available from a range of diverse producer countries, and is incredibly energy dense, meaning comparatively low volumes are required. Enough uranium fuel for several years of electricity production can also be easily stored on the site of nuclear power plants. When compared with other sources of electricity from cradle to grave, nuclear energy has the lowest carbon footprint, uses fewer materials and takes up less land. For example, solar power needs more than 17 times as much material and 46 times as much land to produce one unit of energy. Nuclear power is also the second safest source of energy in the world and nuclear waste is carefully managed and regulated. Nuclear energy has some challenges, including high upfront costs. But over their long lifetime, nuclear power plants produce some of the most competitively priced low-carbon energy. As IAEA Director General Rafael Mariano Grossi wrote in his recent op-ed for the World Economic Forum in Davos: "Nuclear is one of the safest, cleanest, least environmentally burdensome and — ultimately, over the lifetime of a nuclear power plant — one of the cheapest sources of energy

available.” These benefits are being increasingly recognised by environmental activists and world leaders. For example, at COP28 in Dubai, leaders from 22 countries came together to sign a declaration to triple global nuclear energy capacity by 2050 to meet climate goals and energy needs. “After 28 years in the wilderness, nuclear is finally having its moment at the world’s most important gathering on climate change—and not a moment too soon,” said Zion Lights, a former UK spokesperson for the environmental movement Extinction Rebellion. “As someone who once protested against nuclear energy and changed her mind about it, it is heartening to see just how much attitudes to nuclear energy have changed.”

Nuclear energy works – empirics prove

World 24 (World Nuclear Association, World Nuclear Association is the international organization that promotes nuclear power and supports the companies that comprise the global nuclear industry "How can nuclear combat climate change?", May 1 2024, World Nuclear Association, <https://world-nuclear.org/nuclear-essentials/how-can-nuclear-combat-climate-change#:~:text=Nuclear%20power%20plants%20produce%20no,electricity%20when%20compared%20with%20solar>) HDS Nuclear power plants, such as the Diablo Canyon power station in California, provide our societies with reliable and affordable electricity, day in and day out (Photo: Mike Baird) Modern society is becoming more and more dependent on electricity, with demand steadily increasing as transport, domestic heating and industrial processes are increasingly electrified. Whilst electricity is clean at the point of use, its generation currently produces over 40% of all energy-related carbon emissions. Decarbonising the electricity supply, whilst providing affordable and reliable electricity to a growing global population, must be central to any climate change strategy. Nuclear energy has shown that it has the potential to be the catalyst for delivering sustainable energy transitions, long before climate change was on the agenda. France generates over 70% of its electricity from nuclear power – the largest nuclear share of any country globally – and its electricity sector emissions are one-sixth of the European average. In around 15 years, nuclear power went from playing a minor role in the French electricity system to producing the majority of its electricity, showing that nuclear energy can be expanded at the speed required to effectively combat climate change.

Absent investment,

Pearce 23 (Joshua Pearce, "3 Reasons Why Nuclear is Clean and Sustainable", 08/19/2023, Energy.gov, <https://www.energy.gov/ne/articles/3-reasons-why-nuclear-clean-and-sustainable>) TVW

The 1000-ton rule makes it clear that there is a marginal human death cost to every amount of warming, no matter how small. Thus, every 0.1 °C degree of warming can be expected to cause 100 million deaths. Similarly, every 0.001 °C of warming will cause a million deaths. If humanity misses the 2 °C target or any of the more granular goals to stop ‘dangerous climate change’ (75), which appears likely according to AI models (76), rather than relax and accept it, all efforts to reduce carbon emissions can be viewed as lifesaving.

Contention 3 is Recession

A recession is impending.

Thompson 25 (Moxie Thompson, Current 2nd year Masters Candidate @ the Johns Hopkins School of Advanced International Studies (SAIS)., Bologna Institute for Policy Research, xx/xx/25
<https://bipr.jhu.edu/BlogArticles/22-US-Economy-is-Headed-for-Recession.cfm>) Hanna S.

Converging global and domestic factors will cause the United States economy to experience a recession within the next 18 months. The looming economic crisis foretells a weakening of the domestic market and will become a prominent focus of the 2024 US election debates. Analysis The US economy will be simultaneously impacted by several factors: over-expenditures and dwindling funds in the aftermath of the COVID-19 pandemic, vulnerability of big firms, surge in oil and energy prices, and an inverted yield curve. Covid-19 Effects and Inflation The inflation spike that the US experiences can be traced back to the COVID-19 pandemic. In 2020, the US decided to print 3.3 trillion USD, an estimated one fifth of the money in circulation. This method, known as quantitative easing (QE), encouraged borrowing, and provided liquidity to the financial systems. The Federal Open Market Committee (FOMC) decided on two interest rate cuts, returning the federal funds rate to a range of 0%-0.25%. This stimulated consumption but lowered the value of the dollar, leading to inflation. In June 2022, the US experienced a 41-year record high inflation rate of 9.1%. Inflation rates have since dropped considerably, however, consumers continue to struggle, with a 3.7% Consumer Price Index increase from September 2022 to September 2023. This is due largely to diminishing household incomes and issues in supply-chains. The inflow of cash has also led to market volatility. The stimulus money that citizens received during the crisis has mostly run out, with reports showing that the least privileged 80% of Americans have less cash on hand than prior to the pandemic. Among younger Americans, credit-card delinquency rates have increased continuously since the end of 2021, showing a lack of available funds. Additionally, debt rates in Q3 of 2023 surged by almost 5% compared to the previous quarter, indicating that banks are taking on too many risky loans. Student loan payments have also resumed after 3.5 years, potentially cutting into the growth rate by 0.2 to 0.3% in the fourth quarter of 2023. Big Firm Turmoil and Layoffs Many companies are initiating layoffs as they shift to AI-powered work, which will temporarily lead to a significant increase in unemployment until the work sector adapts and finds new ways to employ people. Job loss will contribute to lower consumer spending and an overall slowdown of the economy. Tech companies alone have cut 253,000 jobs in 2023. Simultaneously, big companies have experienced a decline in economic activity, which obstructs their hiring processes, leading many consulting firms like McKinsey, Bain & Company, and BCG to delay start dates for new hires. In addition to domestic unemployment, the US is affected by stagnant economies around the globe. China, US' third largest trading partner, is also experiencing a significant economic downturn, stemming largely from its property crisis, with youth unemployment sitting at 21%. China's economy will have reverberating effects in the US labor market. Many American corporations, like Amazon and Starbucks, are threatened by unreliable Chinese manufacturing and supply chains. Companies will experience turbulence due to domestic and international economic instability, which will be further exacerbated as half of the large and mid-sized banks in the US begin implementing stricter requirements for commercial loans. Energy Price Spikes Oil prices also indicate a coming recession. A barrel of oil has risen to 95 USD in October 2023, up 25 USD since Summer 2023. The price is projected to increase even further. The sanctions that followed Russia's full-scale invasion of Ukraine will continue to increase crude oil prices. To replace Russian sources, the West turned toward Saudi Arabia for oil. However, Saudi Arabia and the Organization of the Petroleum Exporting Countries (OPEC) agreed to a 1.66 million barrels-per-day decrease in production until the end

of 2024. Saudi Arabia and Russia additionally agreed to cut another one million barrels-per-day of production and 300,000 barrels-per-day of exports until the end of 2023, keeping rates of global oil production below global oil consumption. After Canada, the US gets most of its oil imports from OPEC and the Persian Gulf countries. The pressure on crude oil prices will persist, with the Brent spot price estimated to average 93 USD per barrel in 2024.

Energy prices are heating up

Saul 21 (Josh Saul, reporter @ Bloomberg, "U.S. Electricity-Price Inflation Shows No Sign of Cooling Off," 12/10/21, Bloomberg

<https://www.bloomberg.com/news/articles/2021-12-10/u-s-electricity-price-inflation-shows-no-sign-of-cooling-off>)SRT

U.S. consumers continue to face the biggest jump in their energy bills in more than a decade, with the price of electricity in November rising 6.5% from the same month a year ago, according to numbers released Friday by the U.S. Bureau of Labor Statistics. That matches the spike last month, when U.S. consumers saw the biggest jump in their energy bills since 2009 as the weather started to cool. The monthly report shows that overall inflation is running at the fastest pace in almost 40 years, as surging prices for food, energy and other goods erode paychecks. Consumer Prices in U.S. Climb at Fastest Annual Rate Since 1982 Consumers paid 25% more to utilities for natural gas and fuel oil prices jumped 59%. Propane, kerosene and firewood jumped 34%, according to the data. As with electricity, those increases are comparable to the spikes seen in the October report.

The root cause of spikes renewable energy

CEM 22 (CEM, 04/xx/2022, Nuclear Energy—Providing Power, Building Economies, Nuclear Innovation, Clean Energy Future, Clean Energy Ministry <https://www.nrel.gov/docs/fy22osti/82419.pdf>) Hanna S.

In addition to job creation and economic growth, nuclear power plants may help protect consumers from volatile electricity prices (6, 7, 8). Nuclear energy is not always the lowest cost energy source on a levelized cost of energy (LCOE) basis (9); however, once power plants are constructed, nuclear energy has very low variable costs. This means that nuclear energy may reduce wholesale electricity price volatility in a way that is not often captured in an LCOE analysis. For example, traditional energy generation sources rely on regular availability of fossil fuels, such as gas and coal, and the variability of renewable generation can result in mismatches between electricity generation and demand. Both dependencies can result in large wholesale price swings.

Volatility is proven

ANS 16 (American Nuclear Society, non-profit educational organization founded by the National Academy of Sciences, "The U.S. without Nuclear Energy: A Report on the Public Impact of Plant Closures." American Nuclear Society: Special Committee on Nuclear in the States. April 2016. <http://cdn.ans.org/pi/publicpolicy/docs/the-us-without-nuclear-energy-report.pdf>)

U.S. nuclear power plants operate at an overall fleet average capacity factor above 90%. Coal and natural gas can also attain high capacity factors, but have negative environmental impacts. Renewables have minimal emissions but they only generate electricity when the sun shines and the wind blows and are thus unable to respond to short term peak electric system requirements. In electricity markets,

renewable mandates and federal and state tax subsidies sometimes result in negative price bidding where power producers pay customers to take their generated electricity, distorting market prices. In traditional utility states, “must take” provisions, in which any electricity generated must be bought, apply to qualifying renewables facilities. This disrupts an electric company’s economic operation of its portfolio of generation resources. The result in both regulated and deregulated electricity markets is lower efficiency and higher emissions due to the other forms of generation.

Increasing investment solves prices, adds billions to the economy and opens up jobs

CEM 22 (CEM, 04/xx/2022, Nuclear Energy—Providing Power, Building Economies, Nuclear Innovation, Clean Energy Future, Clean Energy Ministry <https://www.nrel.gov/docs/fy22osti/82419.pdf>)HS

In addition to creating jobs, nuclear power plants create good-paying jobs. It is estimated that jobs related to nuclear energy pay, on average, approximately 30% more than other local jobs (3). For countries seeking to start a nuclear program, the initial years may result in fewer domestic jobs because equipment, technology, and expertise are often imported. However, even countries new to nuclear energy can expect strong positive impacts on their economies through the adoption of nuclear energy. In 2021, the International Atomic Energy Agency (IAEA) analyzed 10 countries to assess the economic impact from nuclear energy in terms of gross domestic product (GDP) and employment, including a base case in which no nuclear energy was adopted. Economic data and reference years from 2007–2020 were used as inputs; projections were provided from 2020–2034 on the impact of nuclear adoption or expansion. Several of these countries were nuclear newcomers. Results indicate the GDP of these countries grew between 0.2% and 3% because of investments in nuclear energy. This resulted in billions of dollars (estimated in U.S. dollars) in each country from both domestic and international sources, with 10%–70% of investments occurring in-country, depending on financing and construction agreements (1). From a policy maker perspective, whether starting or continuing a nuclear program, significant employment opportunities and investments can be added to a country’s economy by adopting nuclear energy and scaling-up the supporting industries. Providing Energy Stability In addition to job creation and economic growth, nuclear power plants may help protect consumers from volatile electricity prices (6, 7, 8). Nuclear energy is not always the lowest cost energy source on a levelized cost of energy (LCOE) basis (9); however, once power plants are constructed, nuclear energy has very low variable costs. This means that nuclear energy may reduce wholesale electricity price volatility in a way that is not often captured in an LCOE analysis. For example, traditional energy generation sources rely on regular availability of fossil fuels, such as gas and coal, and the variability of renewable generation can result in mismatches between electricity generation and demand. Both dependencies can result in large wholesale price swings. Additionally, alternative uses of fossil fuels, such as for heating or transport fuels, can cause large swings in electricity pricing. Adding nuclear energy to this mix has been shown to reduce price volatility and cause Figure 1. Jobs created in the United States by energy technology and phase based on per MWe (a) and job-years/GWh (b). CIM is construction, installation, and manufacturing; O&M is operations and maintenance. The y-axis expresses the number of jobs in terms of both average MWe (adjusted for capacity factors of the technologies) and job years per GWh (averaged over the lifetime of the project). (a) (b) system-wide electricity price savings for consumers (6), attributable to long-duration fuel cycles and 24-hours-day operation. One study showed a reduction in weighted-average wholesale electricity prices by as much as 10%

Empirics!

Shellenberger 19 (Michael, Michael D. Shellenberger is an American author and journalist who writes on a wide range of topics including free speech, homelessness, and the environment. He is the first endowed professor at the University of Austin, serving as CBR Chair of Politics, Censorship, and Free Speech. Time Magazine "Hero of the Environment" and president of Environmental Progress, an independent research and policy organization, "Why Renewables Can't Save the Planet," 2-27-2019, Quillette,

<https://www.congress.gov/116/meeting/house/109694/documents/HHRG-116-II06-20190625-SD005.pdf>) SRT

(in) Germany's carbon emissions have been flat since 2009, despite an investment of \$580 billion by 2025 in a renewables-heavy electrical grid, a 50 percent rise in electricity cost. Meanwhile, France produces one-tenth the carbon emissions per unit of electricity as Germany and pays little more than half for its electricity. How? Through nuclear power. Then, under pressure from Germany, France spent \$33 billion on renewables, over the last decade. What was the result? A rise in the carbon intensity of its electricity supply, and higher electricity prices, too.

Stabilizing prices is crucial

IEA ND (IEA ND, "How the energy crisis started, how global energy markets are impacting our daily life, and what governments are doing about it" IEA, <https://www.iea.org/topics/global-energy-crisis>) SRT But the situation escalated dramatically into a full-blown global energy crisis following Russia's invasion of Ukraine in February 2022. The price of natural gas reached record highs, and as a result so did electricity in some markets. Oil prices hit their highest level since 2008. Higher energy prices have contributed to painfully high inflation, pushed families into poverty, forced some factories to curtail output or even shut down, and slowed economic growth to the point that some countries are heading towards severe recession. Europe, whose gas supply is uniquely vulnerable because of its historic reliance on Russia, could face gas rationing this winter, while many emerging economies are seeing sharply higher energy import bills and fuel shortages. While today's energy crisis shares some parallels with the oil shocks of the 1970s, there are important differences. Today's crisis involves all fossil fuels, while the 1970s price shocks were largely limited to oil at a time when the global economy was much more dependent on oil, and less dependent on gas. The entire world economy is much more interlinked than it was 50 years ago, magnifying the impact. That's why we can refer to this as the first truly global energy crisis. Some gas-intensive manufacturing plants in Europe have curtailed output because they can't afford to keep operating, while in China some have simply had their power supply cut. In emerging and developing economies, where the share of household budgets spent on energy and food is already large, higher energy bills have increased extreme poverty and set back progress towards achieving universal and affordable energy access. Even in advanced economies, rising prices have impacted vulnerable households and caused significant economic, social and political strains.

Impact 1 is Climate

Econ decline turns cleantech and global warming

Richard 8 (Michael Graham, Environmental Activist and Contributor @ HuffPost, "4 Reasons Why Recession is BAD for the Environment,"

http://www.huffingtonpost.com/michael-graham-richard/4-reasons-why-recession-i_b_133564.html)

When squeezed, companies will reduce their investments into research & development and green programs. These are usually not short-term profit centers, so that is what's axed first. Some progress has been made in the past few years, it would be sad to lose ground now. 2) Average people, when money is tight, will look for less expensive products (duh). Right now, that usually means that greener products won't make it. Maybe someday if we start taxing "bads" instead of "goods" (pollution, carbon, toxins instead of labor, income, capital gains) the least expensive products will also be the greenest, but right now that's not the case. 3) There's less money going into the stock markets and bank loans are harder to get, which means that many small firms and startups working on the breakthrough green technologies of tomorrow can have trouble getting funds or can even go bankrupt, especially if their clients or backers decide to make cuts. 4) During economic crises, voters want the government to appear to be doing something about the economy (even if it's government that screwed things up in the first place). They'll accept all kinds of measures and laws, including those that aren't good for the environment. Massive corn subsidies anyone? Don't even think about progress on global warming...

Impact 2 is Poverty

Boston University 19 terminalizes that economic shocks put (No Author. June 2019. "The Financial Crisis and the Great Recession". Boston University.

https://www.bu.edu/eci/files/2019/06/MAC_2e_Chapter_15.pdf)

The financial crisis that commenced in 2007 and its aftermath have been widely referred to as the "Great recession"—and with good reason. From its beginning until its nadir in 2009, it was responsible for the destruction of nearly \$20 trillion worth of financial assets owned by U.S. households. During this time, the U.S. unemployment rate rose from 4.7 percent to 10 percent (not counting the discouraged and marginally attached workers discussed in Chapter 7). By 2010, college graduates fortunate enough to find a job were, on average, earning 17.5 percent less than their counterparts before the crisis—and experts were predicting that such a decline in earnings would persist for more than a decade. The crisis also spread beyond U.S. borders. As consumption and income declined in the United States, many countries experienced a significant reduction in exports as well as a decline in the investments that they held in the United States. As a result, global GDP declined by 2 percent in 2009. It has been estimated that between 50 million and 100 million people around the world either fell into, or were prevented from escaping, extreme poverty due to the crisis. Why did this happen? Why were its effects so long-lasting? What lessons can be learned for the future? These are complicated questions to which this chapter provides some answers.