

We negate, The United States federal government should substantially increase its investment in domestic nuclear energy.

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RWT will be reinvigorated under Trump

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<https://archive.ph/6mkCF#selection-541.0-544.0>,

<https://www.washingtonpost.com/politics/2024/12/06/trump-counterterrorism-far-right-white-supremacists/>, DOA 5/10/25) KC

After more than two decades of prioritizing efforts to combat militant Islamist groups, U.S. counterterrorism programs have slowly shifted their focus in recent years to a domestic threat the FBI has said is deadlier and more active: violent far-right movements. But that pivot is likely to halt when President-elect Donald Trump takes office next month, according to analysts and former national security officials. Based on campaign promises and Trump's first-term record, analysts foresee a rollback of initiatives aimed at curbing violent extremism, especially among right-wing movements. Among the predictions: a slashing of domestic terrorism resources, White House pressure to investigate what Trump terms "the radical left" and cuts to programs aimed at the prevention of radicalization. Such moves would reverse steps taken by the Biden administration, which issued the nation's first strategy on countering domestic terrorism in 2021, a document that pledged a whole-of-society campaign to fight white supremacist and anti-government violence that had become "the most urgent terrorism threat the United States faces today." The threat picture has somewhat shifted since 2021, with a drop in far-right attacks and an uptick in foreign-inspired plots. Analysts say the lull among the former is due in part to Justice Department prosecutions of violent extremist groups including the Proud Boys, Oath Keepers and neo-Nazi factions. But researchers say the same domestic movements that mobilized under the first Trump administration are poised to make a comeback if given a permissive climate. An analysis last month by Colin Clarke of the Soufan Center, a security-focused think tank, said "a second Trump term could reduce, if not altogether eliminate, US government funding available for domestic terrorism or at least right-wing extremism." Trump and several of his picks for senior posts have espoused ideologies the Biden counter-extremism project was designed to combat, including white supremacist "replacement" theory, xenophobia, antisemitism and Islamophobia. The president-elect's promise to pardon some rioters who took part in the storming of the U.S. Capitol on Jan. 6, 2021, is another setback to what the Biden administration had touted as progress on the domestic terrorism front. Taylor Rogers, a spokesperson for the Trump-Vance transition team, did not address specific questions about the next administration's priorities in combating domestic terrorism. "President Trump will deliver on his promise to protect our country from terrorist threats and Make America, and the world, Safe Again!" Rogers said in a statement. Trump surrogates have pushed back on claims that racial animus and anti-immigrant extremism are core to the MAGA movement, noting that a surge in support from voters of color helped Trump win the 2024 election. The White House sets policy priorities that trickle down to the funding and investigative assets of federal agencies charged with monitoring a wide range of threats to the United States. Analysts and former

officials say their main concern is a **replay of what they saw in the first Trump presidency — attempts to wield counterterrorism powers as a political cudgel and going after Islamist militants and far-left groups while playing down the far-right threat. Such a turn, extremism researchers say, could embolden movements that assert themselves as a shadow MAGA army. Already, anti-immigrant groups have expressed an eagerness to assist with Trump’s promised mass-deportation plan, an offer that raises the specter of militia vigilantism and increased anti-Latino hostility. “This is an exciting prospect for most of them,” said Amy Cooter, a militia specialist at the Middlebury Institute’s Center on Terrorism, Extremism and Counterterrorism. “Border militias have already been engaged with this and see this as sort of a green light to potentially up their aggressive actions.”** Lessons from last time For clues on how Trump might approach violent extremism this time around, analysts **recall the test that came early in his first presidency after a deadly white supremacist rally in Charlottesville. Analysts say Trump’s muted response to the 2017 hate march indicated a willful blindness to the momentum of the far right. Months earlier, federal authorities issued an intelligence bulletin that said white supremacists were responsible for 49 homicides in 26 attacks from 2000 to 2016, “more than any other domestic movement.” But the Trump White House was loath to address the topic and repeatedly intervened to remove or weaken language in reports related to white supremacist threats,** according to two former counterterrorism officials who spoke on the condition of anonymity to discuss national security matters. **Similar accounts emerged in a whistleblower complaint by a then-official who said superiors told him to modify intelligence reports, including about white supremacists, to bring them in line with Trump’s public statements. A Homeland Security spokesman denied the claims. Critics point to a 2018 White House strategy report as an object lesson in the Trump approach to counterterrorism. The 25-page document mentions Islamist militants nearly two dozen times, with descriptions such as “vile,” “hateful” and “totalitarian.” Domestic terrorism gets a brief mention only at the end: “Lastly,” the section begins, followed by a couple of paragraphs that lumped together “racially motivated extremism, animal rights extremism, environmental extremism, sovereign citizen extremism, and militia extremism.” Days after the White House released the report in October 2018, a gunman killed 11 people at the Tree of Life synagogue in Pittsburgh, the deadliest anti-Jewish attack in U.S. history.** The following spring brought a **second fatal shooting at a synagogue** — in Poway, California, by an assailant who previously tried to burn down a mosque. A few months after that came a **racist rampage** at a Walmart in El Paso and another bloody milestone: the deadliest assault on Latinos in U.S. history. The El Paso attack prompted a rejection of white supremacist violence from Trump, who previously had **said** he didn’t think it was a growing threat. “In one voice, our nation must condemn racism, bigotry and white supremacy,” Trump said. “These sinister ideologies must be defeated.” That more direct approach was echoed in a 2019 counterterrorism strategy that spelled out the threat of white supremacist movements and pledged aggressive pushback — a departure from the 2018 document. Still, behind the scenes, according to former officials and researchers who worked closely with the administration, there was **little political will** to grapple with the far-right threat. Federal authorities began using terms such as “RMVE,” for “racially motivated violent extremism,” which was criticized by activists and researchers as a euphemism for deadly white supremacists. The term was also vague enough that it allowed officials to introduce a subcategory on “black identity violent extremism,” drawing outrage from civil rights groups who called it an attempt to equate Black Lives Matter protesters with far-right militants. Alex DiBranco, executive director of the Institute for Research on Male Supremacism, said some anti-fascist and gender-focused nonprofits are concerned again about the Trump administration seeking to discredit or even prosecute them by classifying them as far-left domestic terrorist groups. “When you think about Trump and the way he talks about anti-fascist organizations, it’s very easy to think about him delineating lots of organizations as terrorist-supporting,” DiBranco said. During Trump’s first term, former officials said, frustrated staffers tried to push for more balanced positions but were steamrolled by the hard-line senior Trump aide **Stephen Miller**, who is returning to the administration with similar powers. Another polarizing returnee is Trump’s pick to oversee counterterrorism policy at the National Security Council, **Sebastian Gorka**, whose open hostility toward Islam and prickly persona contributed to his **exit** after only a few months in the first Trump administration. For all the dysfunction of the first Trump term, a former official said, counterterrorism leaders aggressively pushed the MAGA agenda while remaining cognizant of legal pitfalls and making sure policies could withstand challenges. “They had an appreciation for the importance of doing it right. ‘Move faster, but do it right,’” the former official recalled. Whether that mantra is carried into a second term is an open question. Some are bracing for a constitutional crisis over policies such as mass deportation that are sure to bring legal battles. “You don’t have another election and you own both chambers of Congress, so what if you just ignored court injunction?” the former official said. “What tools do we have to actually enforce court orders? They’re all in the executive branch.” A shifting threat picture Extremism researchers say they expect one immediate effect of Trump’s return to be a repeal of the culture shift Biden tried to bring about with his 2021 domestic terrorism strategy, which pledged more training and personnel to monitor violent far-right networks. Researchers say Biden

ultimately fell short on promises outlined in the strategy but contributed to what analysts have [described](#) as an overdue rethinking of policies that hadn't evolved to meet the latest threats. **In recent years, Pentagon and homeland security officials have launched efforts to root out extremism within their ranks. Academic researchers and community groups were awarded federal grants to study and prevent radicalization. That work, however, is not in line with the MAGA agenda. Trump-aligned Republicans have portrayed the stepped-up fight against domestic terrorism as a thought-police exercise that could infringe on First Amendment rights.**

Affirming would create two risks

First, increasing enriched uranium

Pashby 25 (Tom Pashby: contributor for the New Civil Engineer. 1/10/25, "US Government assessing risk of SMRs being used to make dirty bombs", New Civil Engineer, <https://www.newcivilengineer.com/latest/us-government-assessing-risk-of-smrs-being-used-to-make-dirty-bombs-10-01-2025/> // DOA: 3/13/25)JDE

The risk of small modular reactors (SMRs) being used to provide access to materials for dirty bombs (radioactive explosive devices) is being reviewed by the US Government. The review follows the publication of a paper published in the Science journal looking at the increase in **demand for high-assay low-enriched uranium (HALEU) which can be used to fuel advanced modular reactors (AMRs) and SMRs.** The paper, titled The weapons potential of high-assay low-enriched uranium posited that "Recent promotion of new reactor technologies appears to disregard decades-old concerns about nuclear proliferation". Scott Kemp, Edwin S. Lyman, Mark R. Deinert, Richard L. Garwin, and Frank N. von Hippel authored the paper, which said: "Preventing the proliferation of nuclear weapons has been a major thrust of international policymaking for more than 70 years. "Now, **an explosion of interest in a nuclear reactor fuel** called high-assay low-enriched uranium (HALEU), **spurred by billions of dollars in US Government funding, threatens to undermine that system of control.** "HALEU contains between 10 and 20% of the isotope uranium-235. At 20% 235U and above, the isotopic mixture is called highly enriched uranium (HEU) and **is internationally recognised as being directly usable in nuclear weapons.** "However, the practical limit for weapons lies below the 20% HALEU-HEU threshold. "**Governments** and others promoting the use of HALEU **have not carefully considered the potential proliferation and terrorism risks** that the wide adoption of this fuel creates." The "terrorism risks" the paper refers to **can be understood to mean the creation of dirty bombs, which are relatively low-tech devices. Conventional explosives are used, rather than fission or fusion reactions, to spread radioactive material.** US Government responds to paper announcing review U.S. Department of Energy under secretary for nuclear security and National Nuclear Security Administration (NNSA) administrator Jill Hruby wrote a letter published on 2 January in the peer review 'eLetters' section of the academic paper published on 6 June 2024. Hruby said the paper in Science, and a subsequent debate between the authors the wider nuclear community, promoted the NNSA to respond. "Given concerns about climate change coupled with increased energy demand, nuclear energy is poised for growth," she said. "Advanced and small modular reactors (A/SMRs) using HALEU fuel are under active development "NNSA recognises that reactor type, fuel enrichment level, fuel quantity, and fuel form are important factors in evaluating proliferation risks and believes that risk-informed and adaptive approaches to the proliferation challenges inherent in nuclear energy are warranted." She continued: "NNSA has a program to support U.S. A/SMR developers on security- and safeguards-by-design and promotes best practices for nuclear energy deployment by partnering with the International Atomic Energy Agency (IAEA). "With its national laboratories, NNSA has regularly collected data and evaluated HALEU risks, and is currently finalising plans to commission a National Academies report. Although these reports are largely classified, the information is used to inform programs, develop actions, and make recommendations to stakeholders. "It is important to address proliferation concerns about HALEU and important to responsibly develop A/SMRs. NNSA commits to working with academia, industry, the public, and IAEA to do just that." On 20 January 2025, President Trump will be sworn in for a second term, at which point he will be free to replace public servants with his preferred appointees at organisations including the NNSA. HALEU not being considered in the UK's SMR competition The main focus of SMR developers in the UK is the UK Government's Great British Nuclear (GBN) SMR competition. The competition winner or winners will have the opportunity to build a fleet of SMRs with government support on siting and funding. A GBN source confirmed to NCE that none of the developers in its SMR competition – name the developers – were proposing to use HALEU. NCE [has previously explored the topic of whether waste from SMRs could be used to make nuclear warheads](#) after the Department for Energy Security and Net Zero (DESNZ) did not rule out whether it was investigating this possibility. HALEU still popular in wider SMR research Work on SMRs outside of the GBN competition continues to heat up. Last Energy UK and newcleo are both

active in the UK and are pushing for micro modular reactors and advanced modular reactors respectively. King's College London research fellow Ross Peel told NCE that **HALEU continues to be popular with SMR developers and the risks faced outside of the USA are similar.** Peel has recently authored papers with King's on Insider Threat Security Considerations for Advanced and Small Modular Reactors and Nuclear Industry Views on the Security of Small Modular Reactors: Results of a pilot survey, both published in October 2024. Peel said he has been "very pro-nuclear" for years but **is working to help the industry to address his security concerns around SMRs, which he believes is "not where it should be".** Peel said: "The article in Science caused a major argument when it came out and since, and is still doing so as more people become aware of it. The American Nuclear Society, for instance, prepared a letter to Science denouncing the article and tearing down the methods used by the authors, who are all highly respected non-proliferation scholars. **"HALEU is central to the plans of many developers of novel nuclear technology because of the various benefits it offers. The potential security and proliferation risks are real,** however, and proper consideration needs to be given to these. **"The technical risks of HALEU in the UK and US are not different,** although we do have a different background level of security risk than they do, which means that those technical risks might be experienced and managed in a different way. "Both countries have well-developed nuclear security infrastructure, however, which will help to manage these risks. **A lot of concern from both countries will likely be around the export of HALEU fuel to reactors abroad, in foreign countries with less mature nuclear security and non-proliferation systems.** **"Normalising the possession and use of uranium of up to 20% U-235 means that many states who might concern the US and/or the UK will be able to maintain a justifiable position that is that much closer to possessing nuclear weapons, whilst non-state actors** (terrorists, criminals, and even simple disgruntled employees at nuclear sites and more) **will potentially see their way to accessing a type of nuclear material that they could previously almost never imagine getting hold of.** "Developers should be taking seriously the increased security and proliferation risks associated with HALEU use. I would recommend this be considered from the earliest stages of reactor and fuel design – the decision to use HALEU must be based on a full consideration of all factors, including security risk and proliferation risk. "Technology designers who think about these issues throughout their design process, in an integrated way alongside safety, economics, operability and all the rest, will have the greatest chance of producing well-conceived designs that address risks effectively and produce cost-effective nuclear energy." Mixed oxide (MOX) fuel is touted by some developers like newcleo as a way of reducing the burden on society of nuclear waste by using it to fuel its own AMR design. newcleo said: "Through an innovative combination of existing and proven technologies, and by reviving a nuclear industry model based on the manufacture and multi-recycling of Mixed Oxide (Mox) fuel, **newcleo aims to close the nuclear fuel cycle while safely producing clean, affordable, and practically inexhaustible energy required for low carbon economies.**" Peel continued: "MOX is different to HALEU. MOX is about using a mixture of uranium oxide and plutonium oxide to make the fuel (usually – other oxides can creep in too). Almost all nuclear fuel today is uranium oxide. "HALEU is to do specifically with the uranium within the uranium oxide, specifically, how much of it is uranium-235 vs uranium-238. Most reactors today operate with 2-5% uranium-235 within the overall uranium. HALEU is about moving that into a range of up to 19.999% - going to 20% would make it HEU (highly enriched uranium, which is considered to be unacceptable due to weapons-use risks). "So in theory, you could put HALEU into MOX, although no-one has proposed this as the whole point of putting plutonium in there is to replace the need for uranium-235. If you have both plutonium and HALEU in the same fuel you're effectively doing two complicated and costly processes a bit, rather than focussing on doing one process more." Anti-proliferation body says lots of **SMRs increases weapons risk** The Nuclear Information Service (NIS) describes itself as "an independent, not-for-profit research organisation" which investigates the UK's nuclear weapons programme. NIS director David Cullen said: **"This move by the NNSA is a tacit acknowledgement that warnings being raised about the proliferation risks of HALEU are not unfounded.** "I hope that some of the results of their study will be made public so that there is a greater understanding of the dangers, which are just as relevant to the UK as to the US. "We don't know very much about what would be done in the UK to mitigate the risk, as none of the SMR reactor designs have progressed very far in getting regulatory approval. "Only the Rolls-Royce SMR has passed the second stage of the Generic Design Assessment (GDA) process, which means that the Office for Nuclear Regulation have not identified any foundational problems with that design." GDA allows regulators to assess the safety, security, safeguards and environmental aspects of new reactor designs before site-specific proposals are brought forward. The GDA process assesses new nuclear power plant designs for deployment in the UK, demonstrating they can be built, operated and decommissioned in accordance with the highest standards of safety, security, safeguards and environmental protection. Cullen continued: "The second stage does assess security and safeguards (i.e. measures to prevent clandestine diversion of nuclear material), but only to identify fundamental flaws. "The third stage of the process is much more detailed. I hope the ONR will have an opportunity to draw upon the work the NNSA is undertaking. "Unfortunately, **the industry's vision for SMRs, where a much larger number of smaller reactors are deployed, substantially complicates both counter-proliferation monitoring and ensuring the security of nuclear material.** "Design measures might be able to counter some of the more opportunistic security threats against an individual site, but they **cannot meaningfully guard**

against the diversion of nuclear material by SMR operators. “Fundamentally, **a greater number of sites and more material creates more opportunities for bad actors.** There is no way to design around this basic fact.”

This is the missing piece for extremists

NAE 19 (The National Academy of Engineering (NAE) is an American **nonprofit, non-governmental organization**. It is part of the **National Academies of Sciences, Engineering, and Medicine (NASEM)**, along with the **National Academy of Sciences (NAS)** and the **National Academy of Medicine (NAM)**, September 16, 2019, National Academy of Engineering , “Prevent Nuclear

Terror”,<https://www.engineeringchallenges.org/challenges/nuclear.aspx>, DOA 3/10/25) KC

Long before 2001, defenders of national security worried about the possible immediate death of 300,000 people and the loss of thousands of square miles of land to productive use through an act of terror. From the beginnings of the nuclear age, the materials suitable for making a weapon have been accumulating around the world. Even some actual bombs may not be adequately secure against theft or sale in certain countries. **Nuclear reactors for research or power are scattered about the globe, capable of producing the raw material for nuclear devices. And the instructions for building explosive devices from such materials have been widely published, suggesting that access to the ingredients would make a bomb a realistic possibility.** “It should not be assumed,” write physicists Richard Garwin and Georges Charpak, “that terrorists or other groups wishing to make nuclear weapons cannot read.” **Consequently, the main obstacle to a terrorist planning a nuclear nightmare would be acquiring fissile material — plutonium or highly enriched uranium capable of rapid nuclear fission.** Nearly 2 million kilograms of each have already been produced and exist in the world today. **It takes less than ten kilograms of plutonium, or a few tens of kilograms of highly enriched uranium, to build a bomb.** Fission, or the splitting of an atom's nucleus, was discovered originally in uranium. For a bomb, you need a highly enriched mass of uranium typically consisting of 90 percent uranium-235, a form found at levels of less than 1 percent in uranium ore. Fuel for nuclear power reactors is only enriched 3 percent to 5 percent with respect to this trace form of uranium, and so is no good for explosions. **Highly enriched bomb-grade uranium is, however, produced for some reactors (such as those used to power nuclear submarines and for some research reactors) and might be diverted to terrorists.**

Second, plutonium waste

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Terror”,<https://www.engineeringchallenges.org/challenges/nuclear.aspx>, DOA 3/10/25) KC

Besides uranium, another serious concern is the synthetic radioactive element plutonium. Produced by the nuclear “burning” of uranium in reactors, plutonium is a radioactive hazard in itself and also an ideal fuel for nuclear explosives. Worldwide, more than 1,000 reactors operate nowadays, some producing electric power, others

mostly used for research. **Plutonium produced in either reactor type could be extracted for use in weapons.**

Nuclear security therefore represents one of the most urgent policy issues of the 21st century. In addition to its political and institutional aspects, it poses acute technical issues as well. In short, engineering shares the formidable challenges of finding all the dangerous nuclear material in the world, keeping track of it, securing it, and detecting its diversion or transport for terrorist use. What are the challenges to preventing nuclear terror attacks? Challenges include: (1) how to secure the materials; (2) how to detect, especially at a distance; (3) how to render a potential device harmless; (4) emergency response, cleanup, and public communication after a nuclear explosion; and (5) determining who did it. All of these have engineering components; some are purely technical and others are systems challenges. Some of the technical issues are informational — it is essential to have a sound system for keeping track of weapons and nuclear materials known to exist, in order to protect

against **their theft or purchase on the black market by terrorists.** Another possible danger is that **sophisticated terrorists could buy the innards of a dismantled bomb,** or fuel from a nuclear power plant, and build a homemade explosive device. It is conceivable that such a device would produce considerable damage, with explosive power perhaps a tenth of the bomb that destroyed Hiroshima. **With help from renegade professional designers, terrorists might even build a more powerful device, equaling or exceeding the force of the Hiroshima bomb.** Detonated in a large city, such a bomb could kill 100,000 people or more. Building a full-scale bomb would not be easy, so terrorists might attempt instead to cause other forms of nuclear chaos, possibly using conventional explosives to blast and scatter radioactive material around a city. Such “dirty bombs” might cause relatively few immediate deaths, but they could contaminate large areas of land, cause potential economic havoc to the operation of a city, and increase long-term cancer incidence. There are millions of potential sources of radioactive material, which is widely used in hospitals, research facilities, and industry -- so preventing access is extremely difficult. Responding to a “dirty bomb” attack would also involve engineering challenges ranging from monitoring to cleanup, of both people and places. Concern for nuclear security complicates the use of nuclear energy for peaceful purposes, such as generating electricity. Ensuring that a nation using nuclear power for energy does not extract plutonium for bomb building is not easy. **Diversion of plutonium is much more difficult when a country opts for a “once through” fuel cycle that keeps the plutonium with the highly radioactive spent fuel, rather than a “closed” fuel cycle where spent fuel is reprocessed and plutonium separated out.** Simple record keeping could be faked or circumvented. Regulations requiring human inspection and video monitoring are surely not foolproof.

It's likely

Earnhardt et al 21 (Becca Earnhardt is a Research Associate with the Nuclear Security program at the Stimson Center. Brendan Hyatt is a nuclear security intern at the Stimson Center. Nickolas Roth serves as a senior director of Nuclear Materials Security at the Nuclear Threat Initiative, January 14, 2021, “A threat to confront: far-right extremists and nuclear terrorism”, Bulletin of the Atomic Scientists, <https://thebulletin.org/2021/01/a-threat-to-confront-far-right-extremists-and-nuclear-terrorism/>, DOA 4/11/23) KC

Last March, neo-Nazi Timothy Wilson was killed during a shootout as he was planning to bomb a hospital treating COVID-19 patients. Like other neo-Nazis, Wilson viewed the pandemic and increased unrest among the American public as an opportunity to popularize Nazi ideas, spark further chaos, and accelerate societal collapse.^[1] This past week, Ashli Babbitt was shot and killed while storming the US Capitol as part of a right-wing uprising; several years earlier, she was an employee of the Calvert Cliffs nuclear plant, exhibiting violent behavior during this period. **[2] Acts of violence by far-right extremists are on the rise in the United States. Until now, most of these incidents have lacked sophistication, but a critical question for national security experts is whether US far-right extremist groups that espouse violence can carry out something catastrophic. Every president serving in the last two decades has said that nuclear terrorism is a significant national security threat. Analysis of this threat has been, for good reason, mostly focused on foreign extremist groups, but recent events raise questions of whether there should be greater focus in the United States on far-right, domestic extremist threats. These extremists represent a unique danger because of their prevalence in federal institutions such as the military and the potential that they might infiltrate nuclear facilities, where they could access sensitive information and nuclear materials.** The far-right extremist nuclear terrorism threat, which has some history, is amplified today by an ideology focused on accelerating the collapse of society and a documented interest in pursuing nuclear terrorism. Officials need to act decisively to better understand and mitigate this threat. Far-right narratives of nuclear terror. **The intersection between violent far-right extremist ideology and catastrophic terrorism goes back decades. In The Turner Diaries, a 1978 novel labeled the “bible of the racist right,” the protagonists use acts of nuclear terror in service of the creation of a “white world.” Protagonists bomb nuclear installations, seize nuclear weapons, target missiles at New York City and Tel Aviv, and ultimately destroy the Pentagon in a**

An increasingly active group, leading the deaths of US people [6].^[7]

The following are examples of violent far-right extremist groups or actors have adopted an especially dangerous ideology that is compatible with an act of nuclear terror: accelerationism.

In indiscriminate, highly destructive acts of terrorism—like a nuclear attack—are therefore

perfect tools to sow chaos and accelerate this societal collapse

the most notable and violent far-right extremist groups that have adopted accelerationism and operate in the United States is the Atomwaffen Division ([AWD](#)). The organization's name translates from German to "the nuclear weapons division," indicating that its members have an explicit interest in nuclear terrorism.

The trio stockpiled weapons and explosives with the intent to blow up, among other targets, a nuclear power plant. In their apartment, police found pipe bomb components, traces of the explosive hexamethylene triperoxide diamine, and detonators. Police also detected two radioactive materials—thorium and americium—in his bedroom – AWD was not the first far-right extremist in America to consider using radioactive or nuclear materials in a terrorist attack. Several previously documented attempts by violent far-right extremists to commit acts of radiological terror indicate a longstanding interest among far-right activists in highly destructive, non-conventional attacks like terrorism.

Several groups have obtained the resources to establish the technical equipment capabilities to carry out an act of nuclear terrorism. Many of the plots involving far-right extremist nuclear weapons have been publicly accessible information on the capability of these groups is limited, creating ambiguity about their general capabilities.

The most concerning evidence that violent far-right extremists might have access to nuclear weapons or weapons-usable material lies in their presence in the US military and other parts of the federal government. The presence of white supremacists in the military is well-known and well-documented. A 2019 poll revealed that 36 percent of active-duty military troops had witnessed evidence of white supremacist ideology in the military.^[20] In 2020 alone, there were several recent examples of active service members being arrested for plotting far-right extremist acts of terrorism. In January 2020, Coast Guard Lt. Christopher Hasson was sentenced to 13 years in prison for planning a “mass casualty attack” in support of white nationalism . In February, former Master Sgt. Cory Reeves was discharged from the Air Force because of his ties to white supremacist organizations.^[22] And in June 2020, Private Ethan Melzer, a neo-Nazi in the US Army, attempted to provide information about US troops abroad, “including whereabouts, movement and security details,” to both white supremacist and jihadist groups. He gave this information with the intention of coordinating a suicidal, mass casualty “jihad” attack on those troops. There is also evidence of violent far-right extremism in other government institutions. For example, in May 2018, Matthew Gebert, a State Department employee working on Pakistani and Indian energy policy, led a double life.

Talented individuals who are capable of carrying out such operations would need to receive training at specialized facilities where they can learn how to handle nuclear materials safely, understand the science behind them, and know what types of threats they could pose if used as weapons. This type of training is typically reserved for scientists and engineers involved in civilian nuclear programs, which means that anyone interested in developing nuclear weapons would likely have some background knowledge in physics and engineering before joining a militant group.

A few individuals may possess the skills needed to develop nuclear weapons without formal education or training. These individuals would still require access to nuclear weapons technology, scientific expertise, and sufficient financial resources to acquire all the necessary materials and equipment required to build a functional device.

NNSA (The National Nuclear Security Administration is a United States federal agency responsible for safeguarding national security through the military application of nuclear science. No date, “REDUCING RISK OF NUCLEAR TERRORISM”, NNSA, <https://www.energy.gov/nnsa/articles/reducing-risk-nuclear-terrorism-fact-sheet>, DOA 3/3/25) RK

The impact is nuke war

How can the new Biden administration address the threat of domestic [terrorism](#), most vividly illustrated by the attempted [insurrection at the U.S. Capitol](#) on Jan. 6? Last week, 20,000 members of the National Guard were deployed for the inauguration to [protect](#) the new administration from far-right extremist violence, but a more serious threat looms. **Nuclear and radiological terrorism has prominently appeared in “apocalyptically minded” white-supremacist ideology for decades.** The [policy community](#) perceives the threat of nuclear terrorism as almost uniquely emanating from outside of U.S. borders, specifically from Islamist [terrorism](#) networks such as the Islamic State, al-Qaeda and their splinter groups. But in fact, **U.S. far-right extremist groups have a history of attempted procurement of nuclear weapons and radiological materials to use against the federal government.** Members of neo-Nazi groups such as [Atomwaffen Division](#), which literally means “atomic weapons” in German, and the National Socialist Movement have attempted in the [past](#) to access nuclear materials with the intent to cause harm. Fears of nuclear terrorism among U.S. policymakers go back at least to the 1970s, when armed insurgencies intensified in the Middle East. The 1972 [Munich massacre](#) by

the Palestinian group Black September and the 1973 oil price shock that suddenly [empowered](#) petroleum-exporting countries fueled concerns of a [violent](#), non-White, Muslim world. India's 1974 nuclear explosion, Pakistan's nuclear weapons acquisition in response and new nuclear energy programs funded by petrodollars in Iran, Libya, Iraq and elsewhere further fanned [fears](#) of nuclear materials falling into "rogue" hands. In 1979, as the Iran hostage crisis played out on national [television](#) for over a year, the idea of radical Islam as a security threat became entrenched in U.S. political culture. But **nuclear terrorism was also a domestic threat in the 1970s. Nuclear power was expected to grow that decade, and a large amount of plutonium (a radioactive material used in nuclear weapon design) was feared to be widely available. By the end of the decade, white-power activists, many of whom were Vietnam War veterans hardened by military training, had [organized](#) for a violent armed struggle of "leaderless resistance" against the federal government. To them, the government was the source of unacceptable societal change that hurt White Christian Americans. In 1978, William [Pierce](#), the founder of the neo-Nazi group National Alliance, published the novel "The Turner Diaries" under the pseudonym Andrew Macdonald. It sold over 500,000 copies worldwide and remains highly [popular](#) among white supremacists. In the novel, right-wing extremists invade the Capitol to overthrow the U.S. government. Its narrator, Earl Turner, gloats that "not one of them is beyond our reach." [Dubbed](#) by the FBI as the "bible of the racist right," the novel depicts 18 nuclear explosions in Manhattan alone and the destruction by nuclear weapons of Baltimore, Miami, the California coast and Detroit. It also provides plans to deliberately contaminate with radioactive materials a nuclear power plant in Evanston, Ill. The novel ends with Turner detonating a nuclear bomb over the Pentagon. He justifies the nuclear explosions and sabotage against non-White populations and "race criminals" (liberal Whites) in the name of establishing white supremacy in the United States and worldwide. "The Turner Diaries" has [inspired](#) racially motivated armed robberies and more than [200](#) killings in the United States. It greatly [influenced](#) Timothy McVeigh, the Oklahoma City bomber, who perpetrated the [deadliest](#) domestic terrorist attack on U.S. soil that killed 168 people in April 1995. The book has received [renewed](#) attention after the attack on the Capitol.** Amazon has [prevented](#) its sale, **and major [news](#) outlets have reported on its influence over far-right and white-supremacist groups.** The analogies are chilling. The violent white-supremacist ideology that calls for nuclear and radiological attacks against non-White populations has spread outside the United States. Norwegian far-right terrorist Anders Behring Breivik, who [killed](#) 77 people in July 2011, had called for the [use](#) of chemical, biological, radiological and nuclear agents against "cultural Marxists," "multiculturalists" and those responsible for the Islamic "colonization" of Europe. In his 1500-page manifesto, he laid out plans for theft or unauthorized access to nuclear weapons and the procurement of nuclear materials through transnational smuggling networks. Breivik recommended the use of radiological agents and nuclear weapons after Jan. 1, 2020 — his deadline for Muslims in Europe to "assimilate." Given the [leaderless](#) transnational networks of white supremacists, the call for nuclear and radiological attacks in Breivik's manifesto as well as "The Turner Diaries" poses grave concerns. Policy experts reassure us that if taken seriously as a threat, nuclear terrorism is both [preventable](#) and [solvable](#). That violent white supremacists can easily infiltrate the [police](#), the [military](#) and [nuclear](#) facilities make them an extremely serious and hard-to-detect national security risk. The [involvement](#) in the Capitol attack of the [Oath Keepers](#), a far-right anti-government group that recruits former U.S. military and law enforcement personnel, demonstrates the extent of this threat. Screening far-right extremists within government institutions at local, state and federal levels needs to be a priority for the Biden administration. The key to preventing such a catastrophic attack will be moving beyond a one-dimensional understanding of terrorism as the violent threat of radical Islam, and better understanding the different ways in which far-right domestic terrorism has grown in the United States and the specific threats this brings. **Despite ample evidence to support the concern that [insider threats](#) pose high security risks in nuclear and radiological environments, little has been done at the policy level. The threat of nuclear terrorism is such that we must act preemptively, not after a devastating attack.** The lessons of the past tell us that action will involve breaking down the artificial border between foreign and domestic policies. National security does not just mean preventing attacks from abroad. **The siege of the Capitol came close to being far worse, and there are indications that some rioters intended to [harm](#) lawmakers. But just because we escaped the worst does not mean we can rest easy. We must be proactive to prevent far-right domestic terrorism from going nuclear in this country.**

This triggers retaliation

Hayes 18 (Peter Hayes is Director of the Nautilus Institute and Honorary Professor at the Centre for International Security Studies at the University of Sydney. "NON-STATE TERRORISM AND INADVERTENT NUCLEAR WAR," *Nautilus Institute*, 1/18/18,

<https://nautilus.org/napsnet/napsnet-special-reports/non-state-terrorism-and-inadvertent-nuclear-war/>) dwc
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Conclusion We now move to our conclusion. Nuclear-armed states can place themselves on the edge of nuclear war by a combination of threatening force deployments and threat rhetoric. Statements by US and North Korea's leaders and supporting

amplification by state and private media to present just such a lethal combination. Many observers have observed that the risk of war and nuclear war, in Korea and globally, have increased in the last few years—although no-one can say with authority by how much and exactly for what reasons.//// However, states are restrained in their actual decisions to escalate to conflict and/or nuclear war by conventional deterrence, vital national interests, and other institutional and political restraints, both domestic and international. It is not easy, in the real world, or even in fiction, to start nuclear wars.[19] Rhetorical threats are standard fare in realist and constructivist accounts of inter-state nuclear deterrence, compellence, and reassurance, and are not cause for alarm per se. States will manage the risk in each of the threat relationships with other nuclear armed states to stay back from the brink, let alone go over it, as they have in the past. //// This

argument was powerful and to many, persuasive during the Cold War although it does not deny the hair-raising risks taken by nuclear armed states during this period. Today, the multi-polarity of nine nuclear weapons states interacting in a four-tiered nuclear threat system means that the practice of sustaining nuclear threat and preparing for nuclear war is no longer merely complicated, but is now enormously complex in ways that may exceed the capacity of some and perhaps all states to manage, even without the emergence of a fifth tier of non-state actors to add further unpredictability to how this system works in practice. //// The possibility that non-state actors may attack without advance warning as to the time, place, and angle of attack presents another layer of uncertainty to this complexity as to how inter-state nuclear war may break out. That is, non-state actors with nuclear weapons or threat goals and capacities do not seek the same goals, will not use the same control systems, and will use radically different organizational procedures and systems to deliver on their threats compared with nuclear armed states. If used tactically for immediate terrorist effect, a non-state nuclear terrorist could violently attack nuclear facilities, exploiting any number of vulnerabilities in fuel cycle facility security, or use actual nuclear materials and even warheads against military or civilian targets. If a persistent, strategically oriented nuclear terrorist succeed in gaining credible nuclear threat capacities, it might take hostage one or more states or cities.//// If such an event coincides with already high levels of tension and even military collisions between the non-nuclear forces of nuclear armed states, then a non-state nuclear terrorist attack could impel a nuclear armed state to escalate its threat or even military actions against other states, in the belief that this targeted state may have sponsored the non-state attack, or was simply the source of the attack, whatever the declared identity of the attacking non-state entity. This outcome could trigger these states to go onto one or more of the pathways to inadvertent nuclear war, especially if the terrorist attack was on a high value and high risk nuclear facility or involved the seizure and/or use of fissile material. //// Some experts dismiss this possibility as so remote as to be not worth worrying about. Yet the history of nuclear terrorism globally and in the Northeast Asian region suggests otherwise. Using the sand castle metaphor, once built on the high tide line, sand castles may withstand the wind but eventually succumb to the tide once it reaches the castle—at least once, usually twice a day. Also, theories of organizational and technological failure point to the coincidence of multiple, relatively insignificant driving events that interact or accumulate in ways that lead the "metasystem" to fail, even if each individual component of a system works perfectly. Thus, the potential catalytic effect of a nuclear terrorist incident is not that it would of itself lead to a sudden inter-state nuclear war; but that at a time of crisis **when alert levels are already high**, when control systems on nuclear forces have already shifted from primary emphasis on negative to positive control, when **decision making is already stressed**, when **the potential for miscalculation is already high** due to shows of force indicating that first-use is nigh, when **rhetorical threats promising annihilation** on the one hand, or collapse of morale and weakness on the other **invite counter-vailing threats by nuclear adversaries or their allies** to gain the upper hand in the **"contest of resolve,"** and when organizational cybernetics may be in play such that purposeful actions are implemented differently than intended, **then a terrorist nuclear attack may shift a coincident combination of some or all of these factors to a threshold level where they collectively lead to a first-use decision** by one or more nuclear-armed states. If the terrorist attack is timed or happens to coincide with high levels of inter-state tension involving nuclear-armed states, then some or all of these tendencies will likely be in play anyway—precisely the concern of those who posit pathways to inadvertent nuclear war as outlined in section 2 above. //// The critical question is, just as a catalyst breaks some bonds and lets other bonds form, reducing the energy cost and time taken to achieve a chemical reaction, how would a nuclear terrorist attack at time of nuclear charged inter-state tension potentially shift the way that nuclear threat is projected and perceived in a four or five-way nuclear-prone conflict, and how might it affect the potential pathways to inadvertent nuclear war in such a system?//// Such a pervasive incremental effect is shown in Figure 6 below. Figure 6: Impact of a Terrorist Nuclear Threat or Attack on Interstate

Nuclear Use Control //// Any one or indeed all of these starting nuclear control profiles may be disputed, as might the control profile at the end of the response arrow. (In Figure 6, each nuclear state responds to a terrorist nuclear attack by loosening or abandoning negative controls against unauthorized use, and shifts towards reliance mostly on positive procedural controls biased towards use). But each nuclear armed state will make its moves in response to the posited terrorist nuclear attack partly in response to its expectations as to how other nuclear armed states will perceive and respond to these moves, as well as their perception that an enemy state may have sponsored a terrorist nuclear attack—and considered together, it is obvious that they may not share a common image of the other states' motivations and actions in this response, leading to cumulative potential for misinterpretation and rapid subsequent action, reaction, and escalation.

Extinction

Arbatov 20(Alexey Arbatov, head of the Center for International Security at the Primakov National Research Institute of World Economy and International Relations, 12-4-2020, "Nuclear Deterrence: A Guarantee for or Threat to Strategic Stability?," SpringerLink,

https://link.springer.com/chapter/10.1007/978-94-6265-419-8_5, DOA: 7/12/21)ET

Nevertheless, these concepts, their dynamics, and their dialectical interrelationship create new problems time and again. They give rise to paradoxes that, were it not a life-and-death matter for modern civilization, could be considered intellectually fascinating. But, unfortunately, these concepts concern actual matters of life and death. In the current military and political environment, it is no

longer inconceivable that war between the United States and Russia could break out in just a few days in the event of a crisis. Such a conflict might culminate with an exchange of nuclear strikes taking as long as just a few hours. During those hours, hundreds of millions of people in the northern hemisphere would be killed, and everything created by human civilization in the last thousand years would be destroyed. The direct effects would be irreversible, and the secondary effects would likely kill the rest of the world's population within a number of years, or at least send the remaining population back into a prehistoric existence. The prevention of nuclear war is an indispensable condition for the survival of human civilization, and it is inextricably linked to the concepts of nuclear deterrence, strategic stability, nuclear disarmament, and non-proliferation. It might seem that all of the above goes without saying, and that all of this has long been accepted both in theory and practice by politicians, military leaders, civilian experts, and the enlightened public of the world's advanced nations. Over the past three decades, the nuclear arsenals of Russia and the United States have been reduced substantially—both in terms of the number of warheads and in terms total of destructive power. Yet despite all of this, the danger of nuclear war is today much greater than it was in the late 1980s.

C2) Oil

The US maintains a strong presence in the ME

Masters and Merrow 25 (Jonathan Masters is a deputy editor at the Council on Foreign Relations, and writes on national security and civil liberties issues, he received his BA in Political Science from Emory University, Will Merrow creates data visualizations for a range of CFR content. He previously worked at Graphicacy designing visualizations for mission-driven clients. He holds a bachelor's degree in international relations from Tufts University and a master's degree in data analytics and visualization from the Pratt Institute, "U.S. Forces in the Middle East: Mapping the Military Presence", March 28,

2025, Council on Foreign Relations,

<https://www.cfr.org/article/us-forces-middle-east-mapping-military-presence>, DOA 4/3/25) KC

The United States maintains a considerable military presence in the Middle East, with forces in more than a dozen countries and on ships throughout the region's waters. That presence expanded in 2024 as the United States focused on deterring and defeating threats from Iran and its network of armed affiliates in the region

including Hamas (Gaza Strip), Hezbollah (Lebanon), the Houthis (Yemen), and several Iraq- and Syria-based militant groups. In March 2025, U.S. Central Command forces launched an offensive air strike on Houthi-controlled territories in Yemen from war ships stationed in the Red Sea. Since the October 2023 outbreak of war between Hamas and Israel, a U.S. ally and defense partner, U.S. forces in the Middle East have been increasingly targeted by some of these groups—and have regularly responded with counterstrikes. Meanwhile, U.S. and coalition ships have been protecting merchant shipping in the Red Sea and Gulf of Aden, defending against near-daily Houthi drone and missile attacks. The Pentagon has also responded as hostilities between Israel and Iran as well as Israel and Hezbollah have flared in recent months. In April 2024, U.S. warplanes and ships successfully intercepted dozens of drones and missiles fired at Israel in an unprecedented direct attack by Iran. In October of the same year, the United States announced it sent dozens of additional aircraft (four squadrons) to the region. The move came as Israel commenced a ground incursion against Hezbollah in Lebanon, and Iran launched another, larger barrage of missile strikes against Israel. U.S. naval forces reportedly shot a dozen interceptors at the Iranian missiles. In March 2025, B-2 stealth bombers were also reportedly being deployed from their home base in Missouri to the joint U.S.-United Kingdom military base in Diego Garcia, an island part of the British Indian Ocean Territory that is within striking range of Houthi territory and Iran. U.S. troop levels in any given region can fluctuate greatly depending on the particular security environment, national defense priorities, and various other considerations. As of October 2024, U.S.

defense officials said there were some forty thousand servicemembers in the Middle East, many on ships at sea in the region. **In total, the United States has military facilities across at least nineteen sites—eight of them considered to be permanent by many regional analysts—in countries including Bahrain, Egypt, Iraq, Israel, Jordan, Kuwait, Qatar, Saudi Arabia, Syria, and the United Arab Emirates.**

The U.S. military also uses large bases in Djibouti and Turkey, which are part of other regional commands but often contribute significantly to U.S. operations in the Middle East. All host countries have basing agreements with the United States, except Syria, where U.S. forces had been opposed by the government. (Syria's interim President Ahmed al-Sharaa has indicated an interest in restoring ties with the United States.) Qatar hosts U.S. Central Command's forward headquarters. Bahrain hosts the most permanently assigned U.S. personnel and is home to the U.S. Navy's Fifth Fleet. The navy had multiple large warship formations conducting operations in the region, but since the start of the second Donald Trump administration, several warships have been returned to the United States to support domestic border security efforts. **As of March 2025, two carrier strike groups will overlap in the region, with the USS Harry S. Truman extended another month and the USS Carl Vinson set to arrive in the coming weeks at U.S. Central Command's area of responsibility.** The move to deploy the two aircraft carriers follows renewed firing between the United States and Houthi rebels in Yemen and the Red Sea earlier that month.

Affirming reverses this

Sivaram and Saha 18 (Varun Sivaram and Sagatom Saha: Council on Foreign Relations, New York, USA. 1/12/2018, "The Geopolitical Implications of a Clean Energy Future from the Perspective of the United States", The Geopolitics of Renewables,

https://link.springer.com/chapter/10.1007/978-3-319-67855-9_5 // DOA: 3/27/25) JDE

5.3 The Fading Geopolitics of Fossil Fuels: New Dynamics with Established Powers **America's relationship with the Persian Gulf could drastically change by 2050 as it adopts clean energy. The United States currently maintains a strong military presence in the region, in large part to prevent disruptions in global oil supplies. But the American economy could be far less exposed to oil shocks in the future if it reduces its oil demand and develops stronger buffers against supply disruption.** The United Kingdom's withdrawal from the Gulf during the Cold War provides a template for how America's drawdown might look. **In such a scenario, America might substitute its**

permanent presence for a lighter footprint and redirect its naval power elsewhere to address more pressing security concerns. Yet regional instability might deter a full U.S. withdrawal. 5.3.1 Context America has long considered the Persian Gulf central to its national interest. Driven by concerns over global oil supply, President Franklin D. Roosevelt declared "the defense of Saudi Arabia as vital to the defense of the United States" in 1943, authorizing U.S. military aid to the Kingdom (Klare 2013). As the region constituted most of the world's non-Soviet oil at the time, a large supply disruption in the Gulf would have been disastrous to the United States

(Glaser and Kelanic 2017). Such a disruption came to pass when the Organization of the Petroleum Exporting Countries (OPEC) set an embargo on oil in 1973 (DOS n.d.). The price of oil in the United States quadrupled, imposing daunting costs on consumers and the wider economy. Between 1973 and 1975, U.S. GDP plummeted 6% and unemployment doubled to 9% (Hayward 2015). The U.S. economy is still exposed to oil prices today. Though it is difficult to estimate the direct economic cost of oil dependency, economists suggest a 10% increase in oil prices shaves 0.4% from GDP. If prices were to double today, economic output would shrink by 3% or about \$550 billion (Glaser and Kelanic 2017). Echoing FDR's doctrine, President Carter, in a State of the Union address, proclaimed that "an attempt by any outside force to gain control of the Persian Gulf region will be regarded as an assault on the vital interests of the United States of America, and such an assault will be repelled by any means necessary, including military force." (Peters and Woolley n.d.a). He later created the Rapid Deployment Force, which would become U.S. Central Command (CENTCOM), America's unified U.S. military command responsible for the Middle East (Cordesman 1991). Today, the U.S. military presence in the Gulf is still motivated by preventing both deliberate and unintended oil supply disruptions. The first mission is to ensure that countries in the region—in particular, Iran—cannot purposefully disrupt the flow of oil through the Strait of Hormuz. An extended closure would be devastating, blocking 20% of the world's oil supply (EIA 2012; Glaser and Kelanic 2017). The second mission is to backstop stability for major supplier-countries to guarantee steady production. Iraq's invasion of Kuwait alone cumulatively wiped 420 million barrels from world supply from 1990 to 1991 (Fattouh 2007). Either scenario—deliberate or unintended disruption to oil supply—would cause a surge in the price of oil, harming the U.S. economy. **To guard against these scenarios, the United States maintains roughly 35,000 troops in the Gulf, one-third of which are stationed in Kuwait (Katzman 2016). The remainder are positioned throughout the region in the United Arab Emirates, Oman, Bahrain, and Qatar. America's naval presence in the region is anchored by the Fifth Fleet, which patrols the Persian Gulf (Allen 2017).** The fleet consists of several carrier strike groups, expeditionary strike groups, and a number of other ships and aircraft (Pike 2011a). The U.S. military also operates rotating Marine Expeditionary Units, brigade-size quick reaction forces for immediate crisis response (Pike 2011b). **It is difficult to attribute exactly how much the United States spends on protecting the flow of Gulf oil, given that many of these military assets also serve other purposes. However, experts estimate the cost at between 12 and 15% of the defense budget—roughly \$90 billion dollars (Crane et al. 2009). Another assessment places U.S. defense spending attributable to oil imports at roughly \$15 for each imported barrel (Hall 1992).**

Its strategic

Sivaram and Saha 18 (Varun Sivaram and Sagatom Saha: Council on Foreign Relations, New York, USA. 1/12/2018, "The Geopolitical Implications of a Clean Energy Future from the Perspective of the United States", The Geopolitics of Renewables, https://link.springer.com/chapter/10.1007/978-3-319-67855-9_5 // DOA: 3/27/25) JDE

5.3.2.3 Scenario Summary Thus, the U.S. would be largely protected from an oil crisis in the Gulf, having satisfied two requirements: **its economy would need less oil to function, and it would have better safeguards to mitigate supply disruptions that come to pass.** And if global oil demand flags and Gulf production lags behind that of other regions, Gulf oil will be even less important to global oil markets and the U.S. economy. **As these trends unfold, U.S. policymakers might finally decide to scale down America's military presence in the Gulf.** 5.3.3 Implications Something as simple as a strong push toward reduced defense spending—a subject of continuing debate in Congress—could force the U.S. to reevaluate the value of its military commitment toward securing oil flows. If limited, what exactly might America's force posture in the region look like in 2050? The British withdrawal from the Middle East provides one prominent example. Until the late 1960s, the United Kingdom maintained a large military presence in the region chiefly to secure access to oil. Indeed, after World War II, Gulf oil supplies accounted for most of the world's non-Soviet oil and were therefore critical to British security and that of its European allies (Luce 2009). Britain maintained garrisons with air and naval support in Sharjah and Bahrain while also financing local police and military forces in Oman and Abu Dhabi (Sato 2009). Despite this, the need to cut defense spending and stimulate the economy forced the United Kingdom to abdicate its special influence. In 1968, the British government announced a complete military withdrawal "east of the Suez" (Sato 2009). Most of the military was either redirected to Europe to confront the Soviet Union or cut altogether. Dennis Healey, UK secretary of defense at the time, noted, "Although we have important economic interests in the Middle East, Asia, and elsewhere, military force is not the most suitable means of protecting them, and they would not alone justify heavy British defense expenditure" (Francis 2000). **With far lower dependence on Gulf supplies, American policymakers could reach a similar conclusion by 2050. A persuasive push to rein in ballooning defense costs—as in the United Kingdom—could compel the United States to withdraw from the Gulf. In fact, it may**

become strategically sensible for the U.S. to abdicate its role as security guarantor if that role is perceived as a responsibility and burden to secure supply for other countries. Support for maintaining America's military presence could evaporate when it becomes clear that India and China, not the United States, would actually suffer most from an oil supply disruption (Murtaugh et al. 2016). There may be little support for shouldering security costs that benefit other countries that are more dependent on global oil markets and Gulf production. Yet the United States is unlikely to completely relinquish an active presence in the Gulf because of its commitments to combatting terrorism and checking Iranian aggression. Still, **whatever military assets remain would require more specific justification than the broad fiat exercised today. America's role may mirror its current security posture in Sub-Saharan Africa, where it maintains a relatively small handful of bases and spends comparatively less on counterterrorism operations** (Taylor 2014). **Concretely, the United States could forego its legacy of permanent military bases and naval assets in favor of a lighter footprint. America could pursue its non-oil- related strategic goals in the Gulf by relying on coalition building with regional and international partners. The president might deactivate the Bahrain-based Fifth Fleet or redirect it to the Asia-Pacific where it originally operated.** In coming decades, China's growing influence in the region may drive the United States to build a stronger presence there.

A lack of US military presence would create chaos

Stroul 25 (Dana Stroul is Director of Research and Shelly and Michael Kassen Senior Fellow at The Washington Institute for Near East Policy, "A Return to Maximum Pressure: Comprehensively Countering the Iranian Regime's Malign Activities", April 1, 2025, The Washington Institute for Near East Policy, <https://www.washingtoninstitute.org/policy-analysis/return-maximum-pressure-comprehensively-countering-iranian-regimes-malign>, DOA 4/3/25) KC

In my view, the window is open for the United States to work with like-minded partners to advance opportunities in a region no longer held back by Iran's nefarious influence. To emphasize, this is a window of opportunity: **how the United States proceeds in the coming months will determine whether a more stable and secure Middle East emerges from the post-October 7 environment.** To press the advantage, Washington must be prepared to bring more to the table than pressure. Military force and sanctions are critical elements of strategy but insufficient on their own. The United States must lean into diplomacy as well, testing the possibility of a negotiated settlement that can prevent Iran's nuclear program from delivering weapons while also supporting new leaders across the region that oppose Tehran's interest in rebuilding its "axis of resistance." To implement a comprehensive strategy, **the United States will need to empower its diplomats, work with allies and partners, restore assistance and stabilization programs, and maintain a robust military posture and security commitments across the Middle East.** Iran's strategy for regime survival has relied on decades-long investments in three key areas: (1) the nuclear weapons program, (2) its threat network of terrorists and proxies, and (3) its conventional missile arsenal. Tehran has used each of these pillars to threaten its neighbors, challenge Israel's existence, and try to push the United States out of the region, all in the pursuit of imposing its will and vision on the Middle East. **Regional developments since October 7, 2023, have significantly reshaped the regional threat landscape. In the aftermath of Hamas's attack, Israel, with U.S. support, has systematically dismantled Iran's proxy network in Gaza, Lebanon, and elsewhere, disrupting the regime's ability to project power by funding, arming, and training nonstate groups. In Syria, Tehran lost its one Middle East strategic partner with the ouster of Bashar al-Assad, who had willingly permitted the use of Syrian territory for destabilizing Iranian activities. As a result, Tehran's ability to exert asymmetric pressure through its regional proxies has been greatly reduced. New leaders in Damascus and Beirut alike are working to stabilize their countries and do not want them to be dominated by Tehran.** In Gaza, Palestinians have taken to the streets to protest against Hamas, signaling some resistance to the group's stranglehold on

governance. **These new leaders and movements on the ground will need long-term assistance and support.** The combination of Israel's offensive strikes inside Iran and U.S.-led defensive action in the region has lowered the fear barrier in confronting Iranian aggression. **From the emergence of a U.S.-led regional air defense coalition in April 2024 to Israel's defeat of a large-scale ballistic missile attack in October, allies have demonstrated that Iran's complex conventional attacks and missile threats can be effectively countered.** Israel's strikes inside Iran targeted key missile production facilities, disrupting the regime's ability to replenish critical components of its arsenal and degrading its strategic air defense systems. Tehran's military infrastructure is now exposed to future military action. **These developments not only altered Iran's deterrence posture, but also reinforced the credibility of integrated air and missile defense networks in mitigating threats posed by state and nonstate actors in the region. To build on this, the United States will need to prioritize the operational integration of partner air defenses across the region,** which includes accelerating foreign military sales, providing security assistance funding, and prioritizing defense diplomacy. **Washington will also need to maintain an increased military posture across the region in the medium term as the operational backbone for integration and deterrence.**

This causes Iran proliferate

Stroul 25 (Dana Stroul is Director of Research and Shelly and Michael Kassen Senior Fellow at The Washington Institute for Near East Policy, "A Return to Maximum Pressure: Comprehensively Countering the Iranian Regime's Malign Activities", April 1, 2025, The Washington Institute for Near East Policy, <https://www.washingtoninstitute.org/policy-analysis/return-maximum-pressure-comprehensively-countering-iranian-regimes-malign>, DOA 4/3/25) KC

Yet sanctions alone cannot stop Iran's nuclear program. In the past, the regime responded to economic pressure by taking provocative nuclear steps or attacking the interests of its neighbors. Today, it is **perilously close to crossing the nuclear weapons threshold.** Rafael Grossi, the director-general of the International Atomic Energy Agency (IAEA), has expressed significant concern over Iran's uranium enrichment activities, stating that it is "pressing the gas pedal" by dramatically accelerating enrichment to near weapons-grade levels. He highlighted that Iran's production of uranium enriched to 60 percent purity has increased from approximately seven kilograms per month to over thirty, emphasizing that the Islamic Republic is the only non-nuclear-weapons state producing uranium at this high level of enrichment, which he finds "seriously concerning." Since the United States withdrew from the Joint Comprehensive Plan of Action (JCPOA) in 2018, Iran has significantly advanced its nuclear capabilities. It has expanded its stockpile of high-enriched uranium and is now producing fissile material at enrichment levels and in quantities far beyond the JCPOA's original limits. Additionally, it has installed and operated advanced centrifuges at key facilities such as Natanz and Fordow, increasing the rate of enrichment and shortening its capacity to stage a quick breakout. The regime has also restricted international oversight by limiting cooperation with the IAEA, reducing transparency over its nuclear activities. As my Washington Institute colleague Michael Singh [pointed out](#) in a recent paper for the Trump administration, **Iran could have sufficient weapons-grade uranium for a weapon in just days and could produce a usable weapon in six months or less.** Although Director of National Intelligence Tulsi Gabbard [recently testified](#) that **Iran is not actively pursuing a nuclear weapon at this time, the U.S. intelligence community has warned for the past year that regime nuclear experts are engaging in activities that better position Tehran to develop a nuclear device should the leadership decide to do so. These activities include work on uranium metal production, which has direct weapons applications, and advancements in explosive technologies relevant to nuclear warhead development.** While Iran insists that these measures are for civilian energy and research purposes, **the pattern of activity suggests that it is methodically reducing the time needed to weaponize if it chooses to move in that direction. The intelligence community has long assessed that Tehran's decisionmaking is the only thing precluding a breakout, not any technical inhibition. A crucial question for this hearing, therefore, is whether we can keep Iran from making that decision.** President Trump has indicated that while economic and military pressure will continue, his preferred path

for addressing Iran's nuclear ambitions remains diplomacy and negotiation. As the administration considers potential talks, it must address several questions. The first is the scope of any agreement—whether negotiations will focus solely on the nuclear program (as with the 2015 JCPOA) or seek a more comprehensive deal that also addresses support for terrorist organizations, proxy militias, and the missile, space-launch, and drone programs. Second, the administration must decide whether to pursue a unilateral negotiation strategy or engage in a multilateral framework involving key allies such as Israel, European partners, and Gulf states. A multilateral approach could enhance enforcement mechanisms and diplomatic legitimacy, but it would also slow the process. A good deal, as National Security Advisor Mike Waltz has emphasized, would be one that permanently blocks Iran from obtaining a nuclear weapon rather than just delaying its capability. It must include consistent, regular inspections to ensure full transparency and prevent the regime from exploiting loopholes. The Trump administration should prioritize testing Tehran's willingness to reach a diplomatic deal on the nuclear program while also preparing to set the program back through military means should diplomacy fail. Yet the time window to test Iran's openness to negotiate is short, partly due to the looming October expiration of remaining restrictions on the nuclear program via UN Security Council Resolution 2231, and also because of Iran's current exposure to Israeli military strikes. Policymakers should assume that Russia and China will work with Iran to rebuild its military-industrial capacity and air defenses, limiting the scope of what can be achieved through military strikes beyond the near term. Moscow and Beijing are already supporting Tehran diplomatically, so Washington will need to prepare for a complex negotiation in which these powers do not contribute to a diplomatic process like they did as part of the P5+1. Also unclear is how Russia and China would respond should Iran decide to weaponize. **To**

strengthen the U.S. approach toward Iran, the administration needs a hard-nosed diplomatic plan

backed by economic and military leverage: To effectively signal U.S. resolve in pursuit of an agreement, the administration should clearly articulate how sanctions relief would be structured if Iran dismantles its nuclear program and exports key elements out of the country. A well-defined framework for phased economic relief would provide clarity on the benefits of compliance. This is also an area where Congress can contribute. At the same time, **the administration must continue taking steps to keep its military**

options open. This includes maintaining a robust U.S. military presence in the region, strengthening regional air and missile defense capabilities, and reinforcing America's commitment to deterring Iranian aggression against Israel and Gulf allies. The recent announcements about sending a second aircraft carrier to the region and deploying B-2 bombers to Diego Garcia are important steps in reinforcing U.S. readiness to use military force.

Otherwise, war occurs in 2 ways

First, cascading prolif

Gowan 18 (Richard Gowan is Senior Fellow at the Centre for Policy Research at United Nations University in New York. He also holds fellowships with the European Council on Foreign Relations and New York University Center on International Cooperation, and teaches at Columbia University's School of International and Public Affairs. 2018, "MINIMUM ORDER: The role of the Security Council in an era of major power competition", *United Nations University Center for Policy Research*, <https://collections.unu.edu/eserv/UNU:6677/UNU-Minimum-Order-FINAL.pdf> // DOA: 10/22/22) SED

It is less certain that the council could now divest itself of its counter-proliferation duties. **If the P5 give up on cooperative approaches to WMD challenges, a series of dangers could quickly arise.** At the most basic level, **more governments could be tempted to experiment with low-grade WMD attacks – such as chemical weapons use** – against their opponents, **on the assumption that the council will not punish them.** On the nuclear plane, **the failure of council efforts to contain DPRK or Iran's nuclear programmes could open the way to more middle and rising powers developing nuclear weapons,** playing P5 members off one another in the process. Lastly, **a deeply divided P5 is extremely unlikely to be able to respond to crises involving new technologies and weapon systems in an effective manner. If the council loses its non-proliferation role, it could presage a series of arms races and potential uses of WMD that would destabilize the international system.** The P5, unable to control a patchwork of non-conventional threats, would surely struggle to maintain cooperation on other issues including conventional crisis management and counterterrorism issues. This, short of an all-out great power war, is the worst-case scenario for the council.

This causes nuclear war

Kroenig 15 (Matthew, Associate Professor and International Relations Field Chair in the Department of Government and School of Foreign Service at Georgetown University. January 2015, "The History of Proliferation Optimism: Does It Have a Future?" Journal of Strategic Studies, https://www.researchgate.net/publication/273960071_The_History_of_Proliferation_Optimism_Does_It_Have_a_Future// DOA: 10/29/20)JDE

"The spread of nuclear weapons poses at least six severe threats to international peace and security including: nuclear war, nuclear terrorism, global and regional instability, constrained US freedom of action, weakened alliances, and further nuclear proliferation.

Each of these threats has received extensive treatment elsewhere and this review is not intended to replicate or even necessarily to improve upon these previous efforts. Rather the goals of this section are more modest: to usefully bring together and recap the many reasons why we should be pessimistic about the likely consequences of nuclear proliferation. Many of these threats will be illuminated with a discussion of a case of much contemporary concern: Iran's advanced nuclear program. Nuclear War The greatest threat posed by the spread of nuclear weapons is nuclear war. The more states in possession of nuclear weapons, the greater the probability that somewhere, someday, there will be a catastrophic nuclear war. To date, nuclear weapons have only been used in warfare once. In 1945, the United States used nuclear weapons on Hiroshima and Nagasaki, bringing World War II to a close. Many analysts point to the 65-plus-year tradition of nuclear non-use as evidence that nuclear weapons are unusable, but it would be naïve to think that nuclear weapons will never be used again simply because they have not been used for some time. After all, analysts in the 1990s argued that worldwide economic downturns like the Great Depression were a thing of the past, only to be surprised by the dot-com bubble bursting later in the decade and the Great Recession of the late 2000s.⁴⁸ This author, for one, would be surprised if nuclear weapons are not used again sometime in his lifetime.

Before reaching a state of MAD, new nuclear states go through a transition period in which they lack a secure-second strike capability. In this context, one or both states might believe that it has an incentive to use nuclear weapons first. For example, if Iran acquires nuclear weapons, neither Iran, nor its nuclear-armed rival, Israel, will have a secure, second-strike capability.

Even though it is believed to have a large arsenal, given its small size and lack of strategic depth, **Israel might not be confident** that it could absorb a nuclear strike and respond with a devastating counterstrike. Similarly, Iran might eventually be able to build a large and survivable nuclear arsenal, but, when it first crosses the nuclear threshold, Tehran will have a small and vulnerable nuclear force. In these pre-MAD situations, there are at least three ways that nuclear war could occur. First, the state with the nuclear advantage might believe it has a splendid first strike capability. **In a crisis, Israel might, therefore, decide to launch a preventive nuclear strike to disarm Iran's nuclear capabilities. Indeed, this incentive might be further increased by Israel's aggressive strategic culture that emphasizes preemptive action. Second, the state with a small and vulnerable nuclear arsenal, in this case Iran, might feel use them or lose them pressures.**

That is, in a crisis, Iran might decide to strike first rather than risk having its entire nuclear arsenal destroyed. Third, as Thomas Schelling has argued, **nuclear war could result due to the reciprocal fear of surprise attack.**⁴⁹ If there are advantages to striking first, one state might start a nuclear war in the belief that war is inevitable and that it would be better to go first than to go second. Fortunately, there is no historic evidence of this dynamic occurring in a nuclear context, but it is still possible. In an Israeli-Iranian crisis, for example, Israel and Iran might both prefer to avoid a nuclear war, but decide to strike first rather than suffer a devastating first attack from an opponent. **Even in a world of MAD, however, when both sides have secure, second-strike capabilities, there is still a risk of nuclear war. Rational deterrence theory assumes nuclear-armed states are governed by rational leaders who would not intentionally launch a suicidal nuclear war.**

This assumption appears to have applied to past and current nuclear powers, but there is no guarantee that it will continue to hold in the future. Iran's theocratic government, despite its inflammatory rhetoric, has followed a fairly pragmatic foreign policy since 1979, but it contains leaders who hold millenarian religious worldviews and could one day ascend to power. **We cannot rule out the possibility that, as nuclear weapons continue to spread, some leader somewhere will choose to launch a nuclear war, knowing full well that it could result in self-destruction"**

Second, an Israeli first strike

Farley 19 (Robert Farley, received his Ph.D. for Political Science. "Why Israel Would Start a Nuclear War," 9/12/2019, National Interest, <https://nationalinterest.org/blog/buzz/why-israel-would-start-nuclear-war-80016>. DOA: 10/18/2019) DE

If a hostile power (let's say **Iran**, for sake of discussion) **appeared to be on the verge of** mating **nuclear devices** with the systems needed to deliver them, **Israel might well consider a preventive nuclear attack.**

In the case of Iran, we can imagine scenarios in which **Israeli planners would no longer deem a conventional attack sufficiently lethal to** destroy or **delay the Iranian program.** In such a scenario, and absent direct intervention from the United States, **Israel might** well decide to **undertake a limited nuclear attack** against Iranian facilities.

Causes extinction

Avery 20 (John Scales Avery is a theoretical chemist at the University of Copenhagen. Since 1990 he has been the Chairman of the Danish National Group of Pugwash Conferences on Science and World Affairs. Between 2004 and 2015 he also served as Chairman of the Danish Peace Academy. He founded the Journal of Bioenergetics and Biomembranes, and was for many years its Managing Editor. He also served as Technical Advisor to the World Health Organization, April 1 2020, "Attacks On Iran, Past And Present", Counter Currents, <https://countercurrents.org/2020/01/attacks-on-iran-past-and-present/>, DOA 1/1/23) RK

An attack on Iran could escalate We recently passed the 100th anniversary **World War I**, and we should remember that this colossal disaster **escalated uncontrollably from what was intended to be a minor conflict.** There is a danger **that an attack on Iran would escalate into a large-scale war in the Middle East, entirely destabilizing a region that is already deep in problems. The** unstable **government of Pakistan might be overthrown, and the revolutionary Pakistani government might enter the war on the side of Iran, thus introducing nuclear weapons into the conflict. Russia and China, firm allies of Iran, might also be drawn into a general war in the Middle East.** In the dangerous situation that could potentially result from an attack on Iran, there is a risk that **nuclear weapons would be used, either intentionally, or by accident or miscalculation.** Recent research has shown that besides **making large areas of the world uninhabitable** through long-lasting radioactive contamination, **a nuclear war would damage global agriculture to such a extent that a global famine of previously unknown proportions would result. Thus, nuclear war is the ultimate ecological catastrophe. It could destroy human civilization and much of the biosphere.** To risk such a war would be an unforgivable offense against the lives and future of all the peoples of the world, US citizens included. Recent research has shown that **thick clouds of smoke from firestorms in burning cities would rise to the stratosphere, where they would spread globally and remain for a decade,** blocking the hydrological cycle, **and destroying the ozone layer. A decade of greatly lowered temperatures would also follow. Global agriculture would be destroyed. Human, plant and animal populations would perish.** We must also consider the very long-lasting effects of radioactive contamination. One can gain a small idea of what it would be like by thinking of the radioactive contamination that has made large areas near to Chernobyl and Fukushima permanently uninhabitable, or the testing of hydrogen bombs in the Pacific in the 1950's, which continues to cause leukemia and birth defects in the Marshall Islands more than half a century later. In the event of a thermonuclear war, the contamination would be enormously greater. We have to remember that the total explosive power of the nuclear weapons in the world today is 500,000 times as great as the power of the bombs that destroyed Hiroshima and Nagasaki. **What is threatened today is the complete breakdown of human civilization and the destruction of much of the biosphere.**

Thus, we negate.

REBUTTAL:

On grid

1. T: Efficiency

Sovacool 10 (Benjamin Sovacool: Lee Kuan Yew School of Public Policy, National University of Singapore. 6/1/10, “Critically weighing the costs and benefits of a nuclear renaissance”, Journal of Integrative Environmental Sciences,

<https://www.tandfonline.com/doi/full/10.1080/1943815X.2010.485618#d1e227> // DOA: 3/3/25)JDE

A third disadvantage relates to the energy payback ration of the nuclear fuel cycle, or how much energy one gets out of a nuclear power plant after they deduct the energy needed for construction, operation, fueling, decommissioning, and storage. Helen Caldicott has noted, for example, that **a nuclear power plant must operate at full load for 10–18 years before it has paid off its energy debts** (Caldicott [Citation1994](#)).

A separate study looking at the energy payback ratio of different electricity systems, **the ratio of total energy produced compared to the energy needed to build and operate an energy system, found that hydroelectric, wind, and biomass power plants are at least 1.5–20 times more efficient than nuclear reactors** (Gagnon [Citation2008](#)).

LI: if energy systems are more efficient, there's more available to power the grid

2. T: Uranium shortage

Sovacool 10 (Benjamin Sovacool: Lee Kuan Yew School of Public Policy, National University of Singapore. 6/1/10, “Critically weighing the costs and benefits of a nuclear renaissance”, Journal of Integrative Environmental Sciences,

<https://www.tandfonline.com/doi/full/10.1080/1943815X.2010.485618#d1e227> // DOA: 3/3/25)JDE

Nonetheless, while historical reserves of uranium have been plentiful, **security of future supplies is uncertain**. The International Atomic Energy Agency, for instance, estimates in their Red Book that **primary supply of uranium will cover only 4–6% of the industry's need for fuel in 2025**. They warned in 2001 that **low-cost ores are being rapidly expended and countries are being forced to explore harder to reach more expensive sites** (International Atomic Energy Agency [Citation2001](#)). Even more worrying is that the Red Book has been accused of historically overestimating uranium mining capacity and availability of reserves, with upward exaggerations of 20–30% common (Dittmar [Citation2009](#)). One study from the Institute of Particle Physics of ETH Zurich and CERN **cautioned that extraction from known mines and secondary resources during the coming 5–10 years appears to be much more critical than generally believed, and almost no country that uses nuclear energy is self sufficient in fuel production.** Table 3, for example, shows that virtually every country producing uranium is now past its peak, and that a deficit occurred in 2008 between uranium supply and demand (with demand for natural uranium exceeding supply) (Dittmar [Citation2009](#)). As depicts, Germany and France have essentially stopped uranium mining, Japan, the United Kingdom, South Korea, and Sweden never had any substantial mining operations of their own, and production in the United States is not even sufficient to satisfy 10% of national demand. For the past 15 years, only about two-thirds of global uranium requirements (between 31,000 and 44,000 tons) have been extracted from actual uranium mines, with the shortfall made up of civilian and military stocks of uranium and plutonium built up over the cold war along with mixed oxide reprocessing. These **secondary sources, however, are becoming rapidly exhausted, convincing the Nuclear Energy Agency and the IAEA to declare in the press release of their Red Book 2007 that “most secondary resources [of uranium] are now in decline and the gap will increasingly need to be closed by new production.** Given the long lead time typically required to bring new resources into

production, uranium supply shortfalls could develop” (Dittmar [Citation2009](#)). Such pessimism was confirmed recently by another independent study on available uranium resources at 93 deposits and fields located in Argentina, Australia, Brazil, Canada, Central African Republic, France, Kazakhstan, Malawi, Mongolia, Namibia, Niger, Russia, South Africa, United States, and Zambia (Mudd and Disendorf [Citation2008](#)).

LI: shortage means supplies are unreliable which thus means the grid would be too

3. NL: Nuclear reactors still rely on grids to power cooling systems

Kuperman 24 (Alan J. Kuperman is associate professor and coordinator of the Nuclear Proliferation Prevention Project at the LBJ School of Public Affairs, University of Texas at Austin. 10/7/24, “[On Army bases, nuclear energy can’t add resilience, just costs and risks](https://breakingdefense.com/2024/10/on-army-bases-nuclear-energy-cant-add-resilience-just-cost-s-and-risks/)”, Breaking Defense, <https://breakingdefense.com/2024/10/on-army-bases-nuclear-energy-cant-add-resilience-just-cost-s-and-risks/> // DOA: 3/5/25)JDE

What about resilience, which is the supposed justification for buying these expensive reactors? Well, **even though reactors can produce electricity, they have always required an external source of electricity to keep them running safely — most crucially to cool the fuel to avoid a nuclear meltdown and radioactive release**. The Army’s recent request for proposals seems to acknowledge this reality by saying that in addition to an external electricity source, **the reactor must have an “alternative credited independent power source as a backup.”** Therefore, **an Army base reactor would almost surely depend on drawing electricity from the commercial grid**. But **this means the reactor would be no more resilient than the existing power source it is supposed to replace to increase resilience**. In the event of a blackout of the commercial grid, what would the reactor do to get essential electricity? Of course, **it would turn on its backup diesel generators**. However, if the base requires backup generators anyway, it has no need for the super-expensive reactor.

4. T: Nuclear energy is more expensive than alternatives

Jacobson 24 (Mark Z

Jacobson, Department of Civil and Environmental Engineering, Stanford University, 17 January 2024, “Seven Reasons Why New Nuclear Energy is an Opportunity Cost That Damages Efforts to Address Climate Change and Air Pollution”, Stanford, <https://web.stanford.edu/group/efmh/jacobson/Articles/I/24-01-MZJ-HRTestimony.pdf>, DOA 3/27/2025) ESR

2. Cost **The levelized cost of energy (LCOE) for a new U.S. nuclear reactor** in 2023, based on Lazard (6) **is \$181** (1141 to 221)/MWh. This **compares with \$49.5** (24 to 75)/MWh **for onshore wind and \$60** (24 to 96)/MWh **for utility-scale solar PV from the same source. This nuclear LCOE range is an underestimate** for several reasons. First, **Lazard assumes a construction time for nuclear of 5.75 years. However**, the Vogtle 3 and 4 reactors, **the only ones built in the U.S. in the past 20 years, took 9 and 10 years, respectively for construction**. Lazard also assumed a mean capital cost of \$11.2/W. However, the Vogtle **reactors cost \$15.7/W** (\$35 billion for 2.23 GW). These changes alone suggest an LCOE of **nuclear** that is **3 to 14 times** that of **onshore wind**. Next, the **LCOE does not include the cost of** the major nuclear **meltdowns** in history.

For example, the estimated **cost to clean up the damage from** three Fukushima Dai-ichi nuclear reactor core meltdowns, **was \$460 to \$640 billion** (7). This is **\$1.2 billion, or 10 to 18.5 percent of the capital cost, of every nuclear reactor worldwide**. In addition, the **LCOE does not include the cost of storing nuclear waste for hundreds of thousands of years**. In the U.S. alone, about **\$500 million is spent yearly to safeguard nuclear waste** from about 92 civilian nuclear reactors. **This amount will only increase as more waste accumulates**. After the nuclear reactors retire, the **spending must continue for hundreds of thousands of years with no revenue stream from electricity sales** to pay for the storage. **There is no reason to think SMRs will be less expensive** than large reactors. Indeed, SMRs were developed before large reactors, but **large reactors took over because they were less expensive due to economies of scale**. **Small reactors generally require more material per unit energy produced than large reactors**.

o/w tf – their studies ignore longterm costs passed on to future generations

Leslie-Bole 19 (Haley)

Leslie-Bole, Senior Manager of US Lands and Climate at the World Resources Institute, Masters of Environmental Management from Yale University, 30 July 2019, “The true long-term cost of nuclear power”, Yale Environmental Review, <https://environment-review.yale.edu/true-long-term-cost-nuclear-power>, DOA 3/27/2025) ESR

The impacts of our transition away from fossil fuels will be felt primarily by future generations. How then can we factor future costs and benefits into the energy choices we make today? **Researchers** Robert **Barron** from the Western New England University **and** Mary **Hill** from the University of Kansas are trying to answer this question. They **calculated the cost of nuclear power as a strategy for low-carbon energy production in the future** and are concerned that **the costs are higher than previous research has suggested**. Nuclear energy has always had both appealing benefits and serious drawbacks. The meltdowns of nuclear reactors in Chernobyl and Fukushima created some of the worst environmental disasters in recent history. Yet, some analysts suggest that nuclear power is also a relatively inexpensive, low-carbon way to produce electricity. Its low-carbon emissions are particularly important in the fight against climate change, as the world looks to transition from high-carbon fuels like oil and coal toward lower-carbon methods of producing power. **One study** cited by Barron and Hill estimates that the transition to low-carbon energy pathways would be 50% more expensive if nuclear power were

not an option than if it were included as a transition energy source. Because of these benefits and drawbacks, the decision whether to increase reliance on nuclear energy is complex. According

to Barron and Hill, to get a sense of the true cost of nuclear power, we need to assess not only the cost of power production now, but its effect on future generations – a time scale not typically

considered in most engineering projects. Not only can power plant meltdowns create long-lasting radioactive contamination, but permanent disposal of the radioactive waste that nuclear power plants produce has not yet been achieved by any country. Because the cost of waste disposal is difficult to assess, researchers have debated what the best way is to measure the costs and benefits of nuclear power. Barron and Hill have created a model that provides a more accurate way of factoring in the costs borne by future generations. To do this,

the team closely considers an economic modeling factor called a discount rate. A discount rate of about 5% is common, but it emphasizes near-term costs and downplays future costs. Such a high discount rate is consistent with valuing current or soon to be realized benefits or costs more highly than benefits that we might experience in the future. For example, it is easier to save money for a vacation you know you will be taking this summer, than it is to save for theoretical retirement many years in the future. To account for the impact of nuclear waste on future generations, Barron

and Hill consider two alternative discounting schemes that account for the costs of nuclear power on future generations. This is important, because nuclear power plants and nuclear waste will remain dangerously radioactive for hundreds – if not thousands - of years after they are created. Using their model, Barron and Hill found that nuclear power is likely to be a far less cost-effective, low-carbon energy source than others had suggested. In fact, their models find nuclear waste disposal to be 2.5 to 4 times more expensive than other models have suggested. These new

findings support the argument that nuclear power, despite being a low-carbon energy source, may not be cost effective. With this in mind, more research is needed to determine what role nuclear power is actually capable of playing in a low-carbon future. Many of today's major environmental decisions will affect the people of tomorrow. It may be complex to measure the impacts of nuclear power, but we must continue to do so for the sake of future generations.

LI: trades off w money spent on cyberdefenses

Pref: solves for root cause

On space

1. Their earth extinction threats are a) super low probability and b) have a super long t/f given that we've been on earth for thousands of years and their events haven't caused extinction – if we win a faster t/f or higher probability than a gamma ray vote us

1. T: Mars Colonization destroys ozone layer

Allen 22 (Gabe Allen, contributor for Discover Magazine, BA in Biology and Creative Writing from Skidmore. April 5, 2022. Discover Magazine. “Efforts to Colonize Mars Could Have a Negative Impact on Global Health”,

<https://www.discovermagazine.com/environment/efforts-to-colonize-mars-could-have-a-negative-impact-on-global-health> . DOA: July 20, 2022.) ALP

In 1985, a group of atmospheric researchers led by Pawan Bhartia presented a terrifying satellite image to a room-full of scientists, policymakers and journalists at a conference in Prague: There was a gaping hole in the ozone layer of the stratosphere directly above Antarctica. The culprits were a group of chemicals used by refrigerator manufacturers called chlorofluorocarbons, or CFCs. Just two years later, the Montreal Protocol was signed by 46 countries; over the next decade, CFCs were phased out by industry around the globe. Today, ozone levels are slowly rebounding. But space travel could endanger the ozone layer once again. Black carbon is an excellent greenhouse gas — excellent in the sense that it is very good at absorbing sunlight and converting it into heat. When rockets travel through the upper atmosphere, they raise temperatures in their wake. At the moment, there are too few space launches for this effect to be very pronounced. But Toohey warns that consistent launches, like the ones required to populate a Martian city, could pose a problem. “The effect is to cause a slight temperature gradient between where the black carbon is warming things and other parts of the planet that aren’t launching rockets,” he says. “You end up with a change in the winds in the stratosphere and mesosphere, which may not sound like much, but those winds move ozone from one part of the planet to another. In a research project that is now more than a decade old, Toohey and his colleagues modeled the atmospheric outcome of a scenario where 1,000 rockets were launched every year. What they found was striking: Stratospheric ozone levels were expected to shift by 1 percent in tropical regions and as much as 6 percent at the poles. “You’re not creating an ozone hole, but you’re basically just changing things by the same amount,” Toohey says. “Those are the same numbers that triggered the whole Montreal protocol.” In a landmark 1995 paper, dermatologist Frank De Grujil estimated that even a 1 percent change in stratospheric ozone could increase the prevalence of skin cancer by 2 percent. As is the case with many environmental issues, the public health cost of emissions poses an ethical dilemma for those who are tempted by the prospect of space colonization. “Whose life is more important?” asks Toohey. “A billionaire astronaut or someone in Bangladesh?”

That causes extinction

Rosenberg 21 (Lizzy Rosenberg, SEO editor at Green Matters, writing articles about sustainable living. September 17, 2021. Green Matters. “Efforts to Colonize Mars Could Have a Negative Impact on Global Health”,

<https://www.discovermagazine.com/environment/efforts-to-colonize-mars-could-have-a-negative-impact-on-global-health> . DOA: July 20, 2022.) ALP

As previously mentioned, the ozone layer protects life on planet Earth from exposure to UV rays and radiation. The stratospheric layer, which lies 10 to 30 miles above Earth's surface, consists of naturally created ozone molecules. But in the 1970s, researchers discovered a "hole" in the ozone that was caused by the use of CFCs, which destroy ozone molecules, according to NASA. And as per the EPA, the hole is causing more UV radiation to make its way to life on planet Earth. UV ray exposure can cause skin cancer, cataracts, and immune system problems among human beings. as well as famine in humans and wildlife due to lower crop yield and destruction of marine life. So if the hole in the ozone layer gets much bigger — or if the ozone layer depletes entirely — it could cause increased life-threatening problems to human, animal, and plant life. It could ultimately make planet Earth truly uninhabitable — even more than it is as of right now. But the 1987 Montreal Protocol, which ended the use of CFCs worldwide, has done wonders in protecting the ozone layer. An Earth Observatory study showed if human activity had continued as it had been, regarding the use of CFCs. The hole would have continued

growing, with holes forming over both the Arctic and Antarctica. UV exposure would be astronomical and continuously life-threatening — but luckily, it doesn't seem as though that will be the case, as long as we stick to the Montreal Protocol.

2. T: Disease

O'Neill, 3-11-2008, writer for Universe Today. "Germs Living In Space," [Universe Today](http://www.universetoday.com/2008/03/11/germs-living-in-space-almost-three-times-as-likely-to-cause-disease/),

<http://www.universetoday.com/2008/03/11/germs-living-in-space-almost-three-times-as-likely-to-cause-disease/>. DOI

In one experiment on board Space Shuttle Endeavor (STS-123) launched early this morning (at 2:28 am EST), the reaction of terrestrial bacteria to zero-G will be tested. When compared with test bacteria bred here on Earth, previous studies suggest that **germs bred in space**

are far more potent and are more likely to cause illness to people in space. The Endeavor mission will continue this experiment in the aim to find some way to prevent these microscopic astronauts causing too many problems to the continuing missions on board the International Space Station and future space tourism companies. Until a solution is found, don't go ordering fish off the in-flight menu on your next spaceship ride... **Wherever humans go, a whole zoo of bacteria will follow**. Most of the bacteria hitching a ride on our skin and inside our bodies live in symbiosis with us, but occasionally problem bugs like salmonella or Escherichia coli

(E-coli) **can get out of control**, causing problems such as common food poisoning to more serious, life-threatening ailments such as tetanus, diphtheria, syphilis, cholera... (the list is pretty long.) So, as humans venture into space, it is inevitable that bacteria will come too - the whole symbiotic and parasitic jungle - exploring space with us. **Bacteria will mutate, often very quickly**, adapting to the environment surrounding the little microbes. Mutation is the difference between a bacteria being harmless to becoming deadly. **Mutations help bacteria** to survive and as an example, they **can become antibiotic resistant**. This is a huge problem in places where antibiotics are used very regularly (such as hospitals); genetic information is passed down the generations of bacteria (often doubling in population in a matter of minutes). **If just one microbe has the genetic ability to survive** a type of antibiotic, its

number will multiply, **creating a strain of "superbug" that can avoid being killed** by antibiotics - one of the most basic examples of "natural selection". Methicillin-resistant Staphylococcus aureus (MRSA) is one particular nasty strain of the otherwise benign Staphylococcus genus which has mutated to resist commonly used antibiotics.

causes extinction.

Abraham 96 (Dr. Ben Abraham = "called "one of the 100 greatest minds in history" by super-IQ society Mensa" and owner of "Toronto-based [biotechnology company](#), Structured Biologicals Inc" according to same article)

Despite the importance of the discovery of the "facilitating" cell, it is not what Dr Ben-Abraham wants to talk about. There is a much more pressing medical crisis at hand - one he believes the world must be alerted to: the possibility of a virus deadlier than HIV. If this makes Dr Ben-Abraham sound like a prophet of doom, then he makes no apology for it. AIDS, the Ebola outbreak which killed more than 100 people in Africa last year, the flu epidemic that has now affected 200,000 in the former Soviet Union - they are all, according to Dr Ben-Abraham, the "tip of the iceberg". Two decades of intensive study and research in the field of virology have convinced him of one thing: in place of natural and man-made disasters or nuclear warfare, **humanity could face extinction because of a single virus, deadlier**

than HIV. "An airborne virus is a lively, complex and dangerous organism," he said. **"It can come from a rare animal or from anywhere and can mutate constantly"**. If there is no cure, it affects one person and then there is a chain reaction and it is unstoppable. It is a tragedy waiting to happen." That may sound like a far-fetched plot for a Hollywood film, but

Dr Ben -Abraham said **history has** already **proven** his theory. Fifteen years ago, **few could have predicted the impact of AIDS on the world**. Ebola has had sporadic outbreaks over the past 20 years and the only way the deadly virus - which turns internal organs into liquid - could be contained was because it was killed before it had a chance to spread. Imagine, he says, if it was closer to home: an outbreak [of that scale in London](#), New York or Hong Kong. It could happen anytime in the next 20 years - theoretically, it could happen tomorrow. The shock of the AIDS epidemic has prompted virus experts to admit "that something new is indeed happening and that the threat of a deadly viral outbreak is imminent", said Joshua Lederberg of the Rockefeller University in New York, at a recent conference. He added that the problem was "very serious and is getting worse". Dr Ben-Abraham said: "Nature isn't benign. The survival of the human species is not a preordained evolutionary programme. **Abundant sources of genetic variation exist for viruses to learn**

how to mutate and evade the immune system." He cites the 1968 Hong Kong flu outbreak as an example of how viruses have outsmarted human intelligence. And as new "mega-cities" are being developed in the Third World and rainforests are destroyed,

disease-carrying animals and insects are forced into areas of human habitation. "This raises the very real possibility that lethal, mysterious viruses would, for the first time, infect humanity at a large scale and imperil the survival of the human race," he said.

3. T: Interplanetary genocide

Williston 20 (Byron Williston, Professor of Philosophy at Wilfred Laurier University, member of the Interdisciplinary Centre on Climate Change at the University of Waterloo. May 26, 2020. *Boston Review*. "The Case Against Mars", <https://bostonreview.net/articles/byron-williston-taking-space-back-space-cadets/> . DOA: July 20, 2022.) ALP

On Earth, speciation can occur when spatially expanding populations become geographically isolated from one another (the unique diversity of species on the Galapagos Islands is the paradigm example of this phenomenon). Because of the vast distances between planets it is likely that similar fragmentation would eventually occur in outer space. Along with the interplanetary spread of cyborgs and artificial intelligences, the result, centuries after a viable Mars colony is established, will probably be a plethora of intelligent species, all of which will have evolved to fit their distinctive ecological constraints—an archipelago of politically distinct worlds. The idea is common in sci-fi, from Verner Vinge's 1993 *A Fire Upon the Deep* to Mark Fergus and Hawk Otsby's *The Expanse*, both Hugo Award winners. Multi-world pluralism can look attractive if we assume that everyone will get along, regardless of the profound morphological, technological, and ideological differences that are bound to grow up around and between these groups. Here, however, the space expansionist invocation of natural selection bites back. Radiating and diversifying species notoriously compete with one another for available space and its resources or, in the case of intelligent species, just for glory and prestige. This is all familiar enough from the history of life on Earth, as is the mostly sorry result of the human interaction with other species as well as earlier human groups. We exterminated the Neanderthals (after breeding with them for a while) and are, according to the United Nations, currently in the process of eviscerating the non-human biosphere. Doesn't it seem likely that our deep-space descendants will inherit these destructive tendencies and turn them on each other? A space archipelago will be composed of mutually suspicious and competitive groups, millions of them eventually. But the bonds of sameness that can foster respectful recognition or mutual forbearance will surely diminish with increased interplanetary spatial dispersion and the ordinary workings of evolution. Not that we should expect a space-based Hobbesian war of all against all. There will doubtless be a good deal of room for interspecies and interworld diplomacy in this scenario. However, in the absence of a pacific trans-planetary government—and given our inability to create a single world government here, the chances of that seem slim—opportunities for plunder and general mayhem will likely abound. The temptation to cast the interplanetary Other as subhuman will be pronounced. Remember that the intelligent aliens in *Starship Troopers* are "bugs," and in *Battlestar Galactica* they are "toasters." Even in our fiction, it seems, we have a difficult time imagining what peaceful co-existence among wildly disparate beings might look like. Because of this, all minimally viable colonies will have compelling reasons of state to stockpile awesome weapons of mass destruction: not only hydrogen bombs, but more importantly the ability to convert asteroids into planetoid bombs. Somehow this possibility—potentially genocidal or xenocidal wars of worlds—seems not to matter much to space expansionists, even though it's standard fare in the well of sci-fi from which many of them have drunk so deeply.

Extinction

Williston 20 (Byron Williston, Professor of Philosophy at Wilfred Laurier University, member of the Interdisciplinary Centre on Climate Change at the University of Waterloo. May 26, 2020. *Boston Review*. "The Case Against Mars", <https://bostonreview.net/articles/byron-williston-taking-space-back-space-cadets/> . DOA: July 20, 2022.) ALP

We might shrug off this worry. After all, we are talking here about wars among humans and semi-humans unfolding at the farthest reaches of traversable space. But the risks to Earth security posed by even minimal expansion—say, establishing a fully

independent Martian colony—is just as dire. Earth will be extremely difficult to defend from hostile

galactic **groups** since we Terrans are stuck at the bottom of a relatively deep gravity well. Rockets must achieve an escape velocity of 25,000 miles per hour to break free of Earth's gravitational pull, which is why almost all the rocket's fuel is burned in this stage of the flight; getting back is comparatively easy. So, unfortunately, is **lobbing weapons down at us from the elevated height of the Moon, a**

nearby asteroid, a space platform or Mars itself (whose gravity well is shallower than ours). We might suddenly find ourselves occupying catastrophically low strategic ground vis-à-vis our Martian (or other interstellar) enemies. The failure to grapple with this kind of scenario underlines what Deudney takes to be an entirely unexamined assumption of space expansionists: that "humanity will be succeeded by creatures who are significantly better than humans." He calls this the ascensionist assumption, the notion that by going up we will inevitably become morally and politically better. So of course space colonists and their descendants pose no threat to us. Again, the point is not limited to space cowboys. Most techno-utopians—the giddier boosters of geoengineering, Artificial Superintelligence, nanotech, de-extinction, genetic enhancement, you name it—operate with some version of this background assumption. And that is putting the case charitably, because the other alternative is that they simply don't care about the potentially catastrophic consequences of their dreams and schemes. But evolutionary theory gives us no reason to endorse any version of the ascensionist assumption. It is obviously not the case that over 3.5 billion years of development, species—including Homo sapiens—have become appreciably more tolerant of each other. Life has always been, and remains, red in tooth and claw. In fact, while appealing to evolutionary arguments, space expansionists are covertly counting on the magical disappearance of this aspect of the evolutionary process. It appears that even as we bring life generously to space, **we run the very significant risk of**

erasing our own future: Habitat space expansionists are in effect saying that humanity will—and should—pursue a series of steps that

will lead inevitably to its own demise. **Space expansion may be an agenda of survival for life, but for humanity it**

is an expensive suicide cult. Unlike every other species that has ever existed, we humans are assumed to be "uniquely stupidly suicidal." But our destiny, if we've got such a grandiose thing, is surely not to be mere vehicles for the dispersal of other life forms to the farthest reaches of space. To the extent that the whole program of space expansion rests on this faulty evolutionary logic, Deudney shows that it is a moral and intellectual sham.

o/w prob: historically species always compete

On transition

1. NU: Jobs are open – people just aren't working

Melhorn and Hoover 25 (Stephanie Ferguson Melhorn, Senior Director, Workforce & International Labor Policy, U.S. Chamber of Commerce, Makinizi Hoover, Senior Manager, Strategic Advocacy, U.S. Chamber of Commerce, 21 March 2025, "Understanding America's Labor Shortage: The Most Impacted Industries", US Chamber of Commerce,

<https://www.uschamber.com/workforce/understanding-americas-labor-shortage-the-most-impacted-industries>, DOA 4/3/2025) ESR

The most recent jobs report from the Bureau of Labor Statistics indicates that **thousands of individuals are joining the workforce**, which is good. **However, labor force participation still does not match what it was before the pandemic** for a **variety of reasons**. If the labor force participation rate were at the February 2020 level, we would have an additional two million people in the workforce—and **this shortage is impacting all industries in nearly every state**. Even if every unemployed worker were to fill an open job within their respective industry, there would still be **millions of unfilled job positions**, highlighting the widespread labor shortage.

2. T: Nuclear subsidies don't produce jobs – companies empirically cut their workforce

NIRS 21 (Nuclear Information and Resource Service, national information and networking center for citizens and environmental activists, 27 July 2021, "How Nuclear Bailouts Would Cost over 60,000 Green American Jobs", NIRS,

<https://www.nirs.org/how-nuclear-bailouts-would-cost-over-60000-green-american-jobs/>, DOA 4/3/2025) ESR

Specifically: how many jobs would a nuclear bailout actually create? Spoiler alert! None. Over the last few weeks, we've shown why subsidizing nuclear power is a bad investment for [climate](#), [environmental justice](#), and renewable energy. Earlier this month, [we co-released a major report with Friends of the Earth](#) that shows why nuclear bailouts fail on all counts: climate, jobs, and justice. To be sure, this country has needed a major jobs program for at least a generation. As proponents of the Green New Deal note, because the climate crisis requires the transformation of our entire energy economy, we will need to create millions of jobs to take it on. President Biden's American Jobs and Families Plan—and the \$4.1 trillion in legislation members of Congress are advancing—are also supposed to create millions of jobs. So this week, it's time to dig into jobs and climate—and how subsidizing nuclear reactors hurts both. **Billions for a Nuclear Bailout = No New Jobs** (at most) That's right. **Investing tens of billions in old, uneconomical nuclear reactors will create, at most, zero actual jobs** The **subsidies would go to power plants that are currently operating**, ostensibly to prevent any more of them from closing because they are not making enough profits. The reality is, that **the reactors that would be bailed out were built 30-50 years ago and are currently operating with full-time staff**. So the best the subsidy could do is to avoid potential layoffs of nuclear workers, not create any new jobs for people who are currently unemployed or underemployed. In reality, the subsidy could actually result in a loss of jobs. That is because the **subsidies would not require the companies to keep workers employed at current levels**. We know that **nuclear power companies have cut jobs at reactors that are already receiving subsidies**. Earlier this year, **Exelon** revealed that it **cut its nuclear workforce in Illinois by 15% since 2016, despite receiving nearly \$1 billion in subsidies over the last four years**. Three of its eleven reactors in Illinois (Clinton and Quad Cities 1&2) have been receiving \$235 million/year in ratepayer subsidies under a 2016 law. Yet Exelon cut its nuclear workforce statewide by about 720 jobs, averaging 65 per reactor, including at Clinton and Quad Cities. Given the financial conditions of the nuclear industry, it's possible that thousands of nuclear workers could still lose their jobs even if Congress passes \$50 billion in nuclear subsidies.

3. T: Opportunity cost

NIRS 21 (Nuclear Information and Resource Service, national information and networking center for citizens and environmental activists, 27 July 2021, "How Nuclear Bailouts Would Cost over 60,000 Green American Jobs", NIRS, <https://www.nirs.org/how-nuclear-bailouts-would-cost-over-60000-green-american-jobs/>, DOA 4/3/2025) ESR

Opportunity Costs: **Subsidizing nuclear power could prevent over 60,000 jobs from being created** Budgets are about choices. Senate Democrats have agreed to \$3.5 trillion to fund a package of physical and social infrastructure, with funds raised by increasing the minimum income tax rates on corporations and very wealthy people (household incomes more than \$400,000/year). So **the budget is set**. The **proposed nuclear subsidy would come out of that budget—diverting funds from other programs, priorities, and investments**. By our calculations, knowing that President Biden's American Jobs Plan proposed \$469 billion for renewable energy and other electricity infrastructure, the nuclear subsidy would take up more than 10% of that budget. This would be a massive amount of money to waste on a program that would not create a single job and, at best, would sustain a few thousand jobs at nearly four times the cost of the rest of the energy budget. **If those billions were spent on other energy programs—renewable energy, energy efficiency, battery storage, and/or grid modernization—it would create over 67,000 new jobs**. That would be **enough to re-employ all of the nuclear workers in other energy industries and create jobs to employ 60,000 more people who are currently unemployed or underemployed**. So here is the choice: are we going to give tens of billions to bail out old reactors and ensure most of those workers keep their jobs for a few more years? Or are we going to create four times as many jobs building the energy industry of the future? And if we go with the bailouts, what about the 60,000 Americans for whom the American Jobs Plan will fail to provide jobs?

4. T: Transitioning to nuclear energy causes massive job losses

Halverson 22 (Cadet Halverson is a sophomore at the Air Force Academy. He was previously enlisted as a Cyberspace Operations Airman. He is studying Behavioral Science. He is interested in serving as an Information Operator or Pilot. Aug 25 2022, "The United States Must Pursue Greater Nuclear Energy Power Generation", Air University, <https://www.airuniversity.af.edu/Wild-Blue-Yonder/Articles/Article-Display/Article/3126436/the-united-states-must-pursue-greater-nuclear-energy-power-generation/>, DOA 3/1/25) RK

Using nuclear energy to help fight climate change is feasible, but it will also be necessary to address the downsides of transitioning to nuclear energy. **One of the major downsides of transitioning to nuclear energy is the fact that many states in the United States, such as West Virginia, depend on fossil fuels for their economy. In West Virginia, not only is coal mining a large part of the economy, it also employs 11,418 workers in the state with high-paying jobs.**^[6] Any proposal to transition away from fossil fuels will need to include a plan to replace economic output in places like this, as well as replace the high-paying jobs that will be lost.

Green tech bad

1. T: Increasing emissions

Cameron 24 (D'Angelo (He/Him) is an activist and digital strategist based in Atlanta, GA. He has worked with nonprofit organizations like ACLU National, Black Feminist Futures, and Common Justice. He advanced their advocacy work both online and IRL. He is the Senior Marketing Manager for Out in Tech, the largest global community of LGBTQ+ folks in tech. Outside of work, he is a big fan of all things nerdy, including comics, video games, anime, and more! May 10 2024, "Green Tech May Not Be So 'Green'", Dogwood Alliance,

<https://dogwoodalliance.org/2024/05/green-tech-may-not-be-so-green/>, DOA 3/29/25) RK

Green technology Enter "green technology." Systems and devices used to reduce or reverse the damage done to the environment. Examples include electric vehicles, solar panels, and windmills. Investors and early adopters of **green technology** believe it's the cure to many ills.

Unfortunately, much of it **brings more harm than it solves. Much of it is "green" in name only.** Electric cars **For example, electric cars** have grown in popularity over the past five years. Companies like Rivian and Tesla fight to control the market but at the cost of safety. Many of the lower-tier Teslas **experience safety issues that cause the cars to explode. These explosions put people in danger. They also release dangerous gas. This is on top of electric fuel stations that rely on coal-powered electricity to charge.** Solar and wind **Solar panels and wind turbines can be weather dependent. This can make them less reliable.** Their use of renewable energy can offset starting costs. But they're still very expensive to install and integrate. These factors slow their wider adoption. But like electric cars, these technologies also have a **hidden cost**... In 2022, a chip shortage caused delays in shipments of EV cars and devices that rely on them. This is mainly due to the rise in demand for electronics and conductors during the pandemic. Companies raced to meet demand. In doing so, they contributed to one of the most horrific humanitarian issues of our time. Cobalt mining. Cobalt mining **The mining of cobalt in places like The Democratic Republic of Congo is a horrific scene. The work is often done by young children. Many dig through layers of ground and rock to collect the substance. This creates many health and human rights issues for those forced to work. All while destroying the lands and environment around the digging sites.**

2. T: Harming ecosystems

a) air/water quality

Dwyer 21 (Kat Dwyer is a Young Voices contributor working in the conservation policy space and is co-host of the Whiskey Bench podcast. Her writing has appeared in the Washington Examiner, The National Interest, and others. 04/09/21, "Green tech isn't all it's cracked up to be", The Hill,

<https://thehill.com/opinion/energy-environment/547368-green-tech-isnt-all-its-cracked-up-to-be/>,

DOA 3/29/25) RK

President Biden has pledged to usher in a net zero-emission economy by 2050, electrifying government vehicle fleets, doubling offshore wind production and creating "**millions of jobs in wind, solar, and carbon capture.**" All of this sounds good on paper and makes for great political

fodder in the battle against climate change. But in practice, it could mean creating a host of other environmental challenges. **Green technology like solar and wind require rare earth minerals which must be mined for**. Under a projected two-degree increase in global temperatures, the [World Bank estimates](#) a 300 percent rise in demand for these key minerals. But while green technologies and the minerals used to create them are in high demand, they are also haunted by an uncomfortable reality: **their production leaves behind it a wake of environmental degradation. For example, neodymium, used in wind turbines and motors for electric vehicles, is extracted through open-pit mining, a method that disrupts ecosystems and releases contaminants that threaten air and groundwater quality**. Over [80 percent](#) of Earth's neodymium deposits are found in a few mines in China, where **there are little to no meaningful environmental precautions**.

b) land

Dwyer 21 (Kat Dwyer is a Young Voices contributor working in the conservation policy space and is co-host of the Whiskey Bench podcast. Her writing has appeared in the Washington Examiner, The National Interest, and others. 04/09/21, "Green tech isn't all it's cracked up to be", The Hill, <https://thehill.com/opinion/energy-environment/547368-green-tech-isnt-all-its-cracked-up-to-be/>, DOA 3/29/25) RK

In addition to pollution, habitat destruction is another environmental problem we should aim to avoid. **Conserving habitat is essential to prevent the extinction of vulnerable species. The massive amount of land required for solar and wind means less habitat**. Realistically, it's unlikely the U.S. will ever be able **to power its communities with solar and wind alone. The amount of land required is simply far too great** to be practical — not to mention the issue of intermittent power generation, limited storage capacity and its inherent unreliability. So-called "green" technologies may answer one environmental problem, but they just present others.

Biodiversity collapse cause extinction

University of Exeter 18 (The University of Exeter is a public research university in Exeter, Devon, South West England, United Kingdom, February 29th 2018, "Biodiversity loss raises risk of 'extinction cascades'" Science Daily, <https://www.sciencedaily.com/releases/2018/02/180219155019.htm#:~:text=New%20research%20shows%20that%20the,domino%20effect%20of%20further%20extinctions.&text=%22And%20because%20species%20are%20interconnected,can%20affect%20others%20as%20well.> February 9th 2021) TCS

The researchers, from the University of Exeter, showed there is a higher risk of extinction cascades when other species are not present to fill the "gap" created by the loss of a species. **Even if the loss of one species does not directly cause knock-on extinctions, the study shows that this leads to simpler ecological communities that are at greater risk of "run-away extinction cascades" with the potential loss of many species. With extinction rates at their highest levels ever and numerous species under threat due to human activity, the findings are a further warning about the consequences of eroding biodiversity. "Interactions between species are important for ecosystem (a community of interacting species) stability,"** said Dr Dirk Sanders, of the Centre for Ecology and Conservation at the University of Exeter's Penryn Campus in Cornwall. "And because **species are interconnected** through multiple interactions, an impact on one species can

affect others as well. "It has been predicted that more complex food webs will be less vulnerable to extinction cascades because there is a greater chance that other species can step in and buffer against the effects of species

loss. "In

our experiment, we used communities of plants and insects to test this prediction." The researchers removed one species of wasp and found that it led to secondary extinctions of other, indirectly linked, species at the same level of the food web. This effect was much stronger in simple communities than

for the same species within a more complex food web. Dr Sanders added: "**Our results demonstrate that biodiversity loss can increase the vulnerability of ecosystems to secondary extinctions which, when they occur, can**

then lead to further simplification causing run-away extinction cascades." The study, supported by

France's Sorbonne Université, is

published in the journal Proceedings of the National Academy of Sciences. The paper is entitled: "Trophic redundancy reduces vulnerability to extinction cascades." How extinction cascades work The loss of a predator can initiate a cascade, such as in the case of wolves, where their extinction on one mountain can cause a large rise in the number of deer. This larger number of deer then eats more plant material than they would have before. This reduction in vegetation can cause extinctions in any species that also relies on the plants, but are potentially less competitive, such as rabbits or insects.