Case

Renewable energy is growing in the US private sector

Weiss 25 (Tim Weiss, Co-Founder & CEO of Optera. "What 2025 Means for the Climate Crisis and Businesses", 1/17/25, SDC,

https://www.sdcexec.com/sustainability/carbon-footprint/article/22930386/optera-what-2025-means-

As a result, investors, consumers, regulators and markets are paying closer attention to companies' climate initiatives than ever before. In the last few years, the U.S. government has introduced some initiatives to address climate change. However, the Trump administration is unlikely to accelerate emissions reduction activities through regulatory action. The president supports increased production of fossil fuels, rather than investing in new, forward-looking clean energy technologies. Because these technologies have not yet achieved economies of scale, a lack of federal investment will hamper their growth and adoption. The government's opposition to ESG and sustainability initiatives may also curtail regulations like the SEC's climate disclosure rules. Without federal guidance, the private sector must take the lead on decarbonization initiatives. Market Demand for a Low-Carbon Economy Companies have a lot to gain from transitioning to a low-carbon economy. Consumers and investors demand this change, even if the federal government does not continue actively incentivizing the transition. Investor pressure for supply chain sustainability has surged 25% in five years. Another study found that sustainability is one of the top three purchasing criteria for corporate buyers, and 75% of consumers believe practicing a sustainable lifestyle is important. U.S. survey respondents said they would pay 10% more for environmentally friendly products. Renewable energy makes business sense, too. These sources are cheaper and less subject to dramatic price swings than fossil fuels, while also reducing transition risks in the supply chain. Bloomberg projects that market dynamics alone will drive [and] renewables [will] to account for 50% of energy production in the next five years. Taking no action will be costly to the planet and the bottom line. McKinsey estimates that failure to reduce emissions could put 20% of a company's profits at risk by 2030 because of the increased push toward sustainability. Companies are taking action toward this goal.

Investing in nuclear trades off with the growth of renewable energy, keeping fossil fuels on the grid.

CANE 24 finds "POSITION PAPER: The nuclear hurdle to a renewable future and fossil fuel phase-out." CAN Europe. March 18, 2024. https://caneurope.org/position-paper-nuclearenergy/. Accessed March 8, 2025.

The inflexibility of nuclear, caused by technical limitations, safety requirements and economic factors, prevents the feed-in of renewable electricity into the grid, causing grid congestion and curtailment.

Nuclear's dominance over grid capacity can block[ing] the connection of new renewable energy projects, where even announced and then abandoned plans for a new nuclear unit can delay renewable projects connection, allowing for continued fossil fuel usage. Grid structures designed for large-scale, centralised nuclear power, make it more challenging, time-consuming and costly to introduce small-scale distributed renewable power.

That's terrible, as climate change is a looming crisis. Numerous experts confirm nuclear energy is too slow and expensive to help the environment, despite the affirmative's claims

Luke **Haywood et. al**, No Publication, 8-16-20**23** // // Why investing in new nuclear plants is bad for the climate // https://www.sciencedirect.com/science/article/pii/S2542435123002817 // accessed 3-28-2025 // ashe

There has been a strong push to promote increased investments in new nuclear power as a strategy to decarbonize economies, especially in the European Union (EU) and the United States (US). [But] The evidence base for these initiatives is poor. Investments in new nuclear power plants are bad for the climate due to high costs and long construction times. Given the urgency of climate change mitigation, which requires reducing emissions from the EU electricity grid to almost zero in the 2030s (Pietzcker et al.1), preference should be given to the cheapest technology that can be deployed fastest. On both costs and speed, renewable energy sources beat nuclear. Every [dollar] euro invested in new nuclear plants thus delays decarbonization compared to investments in renewable power. In a decarbonizing world, delays increase CO2 emissions. Our thoughts focus on new nuclear power plants (not phasing out existing plants) in the US and Europe. In Europe, new nuclear power plants are planned or seriously discussed in France, Czechia, Hungary, Poland, Bulgaria, Slovenia, Sweden, and the United Kingdom. We do not focus on China, where government-set electricity prices and subsidized capital costs make it more difficult to contrast the profitability of different types of energy sources.

Thus, our sole argument concerns an environmental tradeoff

Our first point is the climate.

Nuclear energy contributes to climate change in multiple stages of its long development process

Joscha **Weber 21** (Joscha Weber, 11-29-2021, Fact check: Is nuclear energy good for the climate? – DW – 11/29/2021, dw,

https://www.dw.com/en/fact-check-is-nuclear-energy-good-for-the-climate/a-59853315, Accessed 3-29-2025, wayway)

Is nuclear power a zero-emissions energy source? No. Nuclear energy is also responsible for greenhouse gas emissions. In fact, no energy source is completely free of emissions, but more on

When it comes to nuclear, uranium extraction, transport and processing produces emissions. The long and complex construction process of nuclear power plants also releases CO2, as does the demolition of decommissioned sites. And, last but not least, nuclear waste also has to be [and] transported and stored under strict conditions — here, too, emissions must be taken into account.

nuclear plant cooling tower is being torn down in Mülheim-Kärlich, GermanyA nuclear plant cooling tower is being torn down in Mülheim-Kärlich, Germany Dismantling nuclear power plants — as seen here in Mülheim-Kärlich, Germany — also produces CO2Image: Thomas Frey/dpa/picture alliance And yet, interest groups claim nuclear energy is emission-free. Among them is Austrian consulting firm ENCO. In late 2020, it released a study prepared for the Dutch Ministry of Economic Affairs and Climate Policy that looked favorably at the possible future role of nuclear in the Netherlands. "The main factors for its choice were reliability and security of supply, with no CO2 emission," it read. ENCO was founded by experts from the International Atomic Energy Agency, and it regularly works with stakeholders in the nuclear sector, so it's not entirely free of vested interests. At COP26, environmental initiative Scientists for Future (S4F) presented a paper on nuclear energy and the climate. The group came to a very different conclusion. "Taking into account the current overall energy system, nuclear energy is by no means CO2 neutral," they said. Show additional content? This content is part of the text you are currently reading. The provider X / Twitter provides this content and may collect your usage data directly when you

click "Show content". Always show content from X / Twitter. Ben Wealer of the Technical University of Berlin, one of the report's authors, told DW that proponents of nuclear energy "fail to take into account many factors," including those sources of emissions outlined above. All the studies reviewed by DW said the same thing: Nuclear power is not emissions-free. How much CO2 does nuclear power produce? Results vary significantly, depending on whether we only consider the process of electricity generation, or take into account the entire life cycle of a nuclear power plant. A report released in 2014 by the UN's Intergovernmental Panel on Climate Change (IPCC), for example, estimated a range of 3.7 to 110 grams of CO2 equivalent per kilowatt-hour (kWh). It's long been assumed that nuclear plants generate an average of 66 grams of CO2/kWh — though Wealer believes the actual figure is much higher. New power plants, for example, generate more CO2 during construction than those built in previous decades, due to stricter safety regulations. Studies that include the entire life cycle of nuclear power plants, from uranium extraction to nuclear waste storage, are rare, with some researchers pointing out that data is still lacking. In one life cycle study, the Netherlands-based World Information Service on Energy (WISE) calculated that nuclear plants produce 117 grams of CO2 emissions per kilowatt-hour. It should be noted, however, that WISE is an anti-nuclear group, so is not entirely unbiased. Emissions

Balance Energy Sources 2020Emissions Balance Energy Sources 2020 However, other studies have come up with similar results when considering entire life cycles. Mark Z. Jacobson, director of the Atmosphere / Energy Program at California's Stanford University, calculated a climate cost of 68 to 180 grams of CO2/kWh, depending on the electricity mix used in uranium production and other variables. How climate-friendly is nuclear compared to other energies? If the entire life cycle of a nuclear plant is included in the calculation, nuclear energy certainly comes out ahead of fossil fuels like coal or natural gas. But the picture is drastically different when compared with renewable energy. According to new but still unpublished data from the state-run German Environment Agency (UBA) as well as the WISE figures, nuclear power releases 3.5 times more CO2 per kilowatt-hour than photovoltaic solar panel systems. Compared with onshore wind power, that figure jumps to 13 times more CO2. When up against electricity from hydropower installations, nuclear generates 29 times more carbon.

The aff sacrifices a common sense solution: renewable energy

Enrique **Dans 23** (Enrique Dans, 9-18-2023, Here's another, often overlooked reason why nuclear energy is a bad thing, Medium,

https://medium.com/enrique-dans/heres-another-often-overlooked-reason-why-nuclear-energy-is-a-bad-thing-6522371f5e4f, Accessed 3-29-2025, wayway)

Once commissioned, a nuclear power plant cannot be shut down without incurring enormous costs. This results in a contribution to the energy fabric of a country that is virtually constant, predictable and generally considered to be cheap. In reality, the price assigned to nuclear power is a trap,

because it ignores the fact that the "payback time" for a nuclear power plant is between 10 and 18 years, depending on the quality of the uranium ores used as fuel. This means

that a nuclear power plant must operate for at least a decade before all the energy consumed to build and fuel it has been recovered and the plant starts producing net power. That figure that is reduced to [just] one year for [renewables] wind power and less than three for solar power.

Overall, in the long term

"Two's a crowd: Nuclear and renewables don't mix." **ScienceDaily**, October 5, 20**20**, https://www.sciencedaily.com/releases/2020/10/201005112141.htm. Accessed March 9, 2025.

If <u>countries</u> want to lower emissions as substantially, rapidly and cost-effectively as possible, they <u>should prioritize support</u> <u>for renewables</u>, rather than nuclear power. That's the finding of <u>new analysis of 123 countries over 25 years</u> by the University of Sussex Business School and the ISM International School of Management which <u>reveals</u>

that nuclear energy programmes around the world tend not to deliver sufficient carbon emission reductions and so should not be considered an effective low carbon energy source. Researchers found that unlike renewables, countries around the world with larger scale national nuclear attachments do not tend to show significantly lower carbon emissions -- and in poorer countries nuclear programmes actually tend to associate with relatively higher emissions.

On the contrary,

Khan, Anwar et. al. "Efficacy of CO2 emission reduction strategies by countries pursuing energy efficiency, nuclear power, and renewable electricity." Energy, August 1, 20**24**, https://doi.org/10.1016/j.energy.2024.131418. Accessed March 9, 2025.

As such, this research proposes hierarchical analyses using stepwise regression and pairwise correlation for 133 countries over 31

Years

to explain how they use their energy sources, including efficiency, nuclear, and renewable electricity pathways, to mitigate CO2

emissions. Firstly, the results discover that renewable electricity effectively mitigates CO2 emissions, further supported by the incremental change in the R-squared value. Secondly, the results do not support the idea that nuclear power mitigates CO2. In contrast, it is noted that the efficacy of nuclear power on CO2 emission mitigation is effective through the moderation of GDP.

At the end of the day, reducing climate change is key because every degree matters.

Cassella 23 [Carly Cassella, 8-30-2023, "Scientists Warn 1 Billion People on Track to Die From Climate Change," ScienceAlert,

https://www.sciencealert.com/scientists-warn-1-billion-people-on-track-to-die-from-climate-change] //clairec 6

The fossil fuels that humanity burns today will be a death sentence for many lives tomorrow. A recent review of 180 articles on the human death rate of climate change has settled on a deeply distressing number. Over the next century or so, conservative estimates suggest

abillion people could die from climate catastrophes, possibly more. As with most predictions for the future, this one is

based on several assumptions. One is a rough rule of thumb called the '1000-ton rule'. Under this framework, every thousand tons of carbon that humanity burns is said to indirectly condemn a future person to death. If the world reaches temperatures 2°C above the average global preindustrial temperature, which is what we are on track for in the coming decades, then that's a lot of lives lost. For every 0.1 °C degree of warming from now on, the world could suffer roughly 100 million deaths. "If you take the

scientific consensus of the 1,000-ton rule seriously, and run the numbers, anthropogenic global warming equates to a **billion**

premature dead bodies over the next century." explains energy specialist Joshua Pierce from the University of Western Ontario in Canada. "Obviously, we have to act. And we have to act fast." The human death rate from climate change is extremely tricky to calculate, even in the present day. The United Nations reports that every year, environmental factors take the lives of about 13 million people, and yet it's not clear how many of these deaths are directly or indirectly due to climate change. Some experts argue abnormal

temperatures on their own may already claim as many as five million lives a year. Other estimates are much lower. Part of the problem is that the global effects of climate change are manifold. Crop failures, droughts, flooding, extreme weather, wildfires, and rising seas can all impact human lives in subtle and complex ways. Predicting the future death toll of these climate catastrophes is inherently imperfect work, but Pierce and his coauthor, Richard Parncutt from the University of Graz in Austria, think it's worth pursuing. They argue measuring emissions in terms of human lives makes the numbers easier for the public to digest, while also underlining how unacceptable our current inaction is.

Our second point is waste

Nuclear waste is long-lasting and highly hazardous even in small quantities, while efforts to dispose of it are costly and counterproductive

Martina **Igini 22** (Martina Igini, 9/12/2022, The Nuclear Waste Disposal Dilemma, Earth.Org, https://earth.org/nuclear-waste-disposal/, Accessed 3-29-2025, wayway)

In the nuclear energy equation, the storage and disposal of nuclear waste play a huge role. This comes in two forms: from leftover fuels used in nuclear power plants and from facilities involved in nuclear weapons production. Regardless of the source, this hazardous waste contains highly poisonous chemicals like plutonium and uranium pellets. These extremely toxic materials remain highly radioactive for tens of thousands of years, posing a threat to agricultural land, fishing waters, freshwater sources, and humans. For this reason, it is crucial that they are meticulously and permanently disposed of. Two of the world's biggest nuclear accidents – the Fukushima nuclear disaster (2011) and the Chernobyl disaster (1986) – were responsible for the release of a significant amount of radioactive isotopes into the atmosphere, which created huge consequences for people and the environment. These disasters raised concerns about the storage and disposal of nuclear waste and led governments to find safer alternatives to this form of energy. However, in recent years, countries like France, the US, China, and India have shown renewed interest in nuclear power, announcing plans to build new plants in the years ahead as part of their net-zero roadmaps. Take Action Join The Movement Today EARTH.ORG MEMBERSHIP According to Rystad Energy, investments in nuclear are projected to reach US\$46 billion in 2023, up from \$44 billion in 2021. Furthermore, following the energy crisis amid the conflict in Ukraine, European countries that are highly dependent on Russian oil like Belgium delayed their plans for a nuclear phaseout. While this form of electricity is emission-free and thus a better alternative to highly polluting fossil fuels, the decision of several nations to keep relying on nuclear energy sparked fears related to the dangers of highly radioactive spent fuel. Indeed, while 55 new reactors across the world are currently being built, not enough people are considering the complexity of dismantling plants and storing nuclear waste. You might also like: The Advantages and Disadvantages of Nuclear Energy How Are Countries Dealing With Nuclear Waste? Since the 1950s, when early commercial nuclear power stations started operating, more than 250,000 tonnes of highly toxic nuclear waste have been accumulated and spread across 14 countries worldwide. In most cases, the highly radioactive material is collected and stored in inactive nuclear power plants. In the case of Chernobyl, some of the plant's reactors still contain an enormous amount of waste that will remain dangerous for tens of thousands of years. In 2019, one reactor was finally encased below an enormous steel and concrete structure. However, the US\$1.6-billion construction will safely store the radioactive material for only about a century and is thus [which is] just a temporary solution. Ukraine is not the only country that decided to store nuclear waste in power plants that are no longer operating. The largest quantity of untreated nuclear waste on the planet is currently stored in the Sellafield plant in the UK. Yet, the maintenance of these sites can be extremely costly and it requires a large amount of manpower. Despite having shut down in 2003, more than 100,000 employees are involved in ongoing cleanup and nuclear-decommissioning activities at Sellafield that are expected to last more than a century and will cost the government a staggering US\$118 billion. While these temporary measures prove to be a safe solution to nuclear waste storage, engineers are now studying ways to dispose of it permanently. You might also like: Nuclear & the Rest: Which is the Safest Energy Source? What About Nuclear Necropolis? The Example of Finland One of the best solutions so far seems to be to bury nuclear waste underground and about a dozen European countries have already made plans for deep geological repositories for their spent fuel. However, their plans have hit political roadblocks. The first and only successful example of this kind to date is Finland's plan to entomb its 2,300 tonnes of high-level waste in an underground hardrock mine, After decades of negotiations, planning, and long geological and environmental considerations, the Finnish government selected the Island of Olkiluoto - located in the municipality of Eurajoki and home to two of the country's four reactors, which generate 32% of the total electricity in the country as the most suitable location for a long-term storage facility. In 2004, works began encapsulating waste inside copper canisters, which were buried in 400-450-metre deep underground tunnels below the island's granite bedrock. Now, Finland is close to completing the world's first long-term nuclear waste disposal site, which is expected to be operational in 2023. Despite the government ensuring that its disposal facility – which cost approximately €2.6 billion (US\$3.4 billion) - Is "final", doubts remain this can truly be a long-term solution. [b]ecause nothing of this kind has ever been built before in human history, Finland's project does not come without huge technical uncertainties and unpredictable factors that could compromise a facility that authorities hope will store nuclear waste for at least 100,000 years. If something were to go wrong, future generations could risk immense widespread pollution. A Future Outlook on Nuclear Waste Disposal Despite a growing number of countries around the world making

plans to shift toward renewable energies in the race to meet their net-zero targets in the coming decades, not all governments are ready to abandon nuclear energy altogether, with many delaying the nuclear phaseout or even building new plants. An issue associated with this type of energy is the disposal and storage of highly radioactive leftover fuel. It is undeniable that

significant progress in the safe and effective management of toxic materials has been made in recent years. However, no country in the world has yet come up with a reliable permanent solution to store nuclear waste. While Finland's repository might be the world's first-ever successful long-term storage facility, doubts remain that it will last that long. Furthermore, the extremely high costs associated with building the underground site as well as the potentially destructive consequences that the local community and the surrounding environment will face

should something go wrong are not worth the risk. <u>Instead of relying on a potentially destructive energy source like nuclear</u> <u>power, countries should put more effort into shifting to renewables.</u>

Additionally, nuclear power is inefficient while disposing of many forms of waste into our air and water

Wasserman '21 finds – wrote The People's Spiral of U.S. History. (Harvey, "How Nuclear Power Causes Global Warming," Progressive.org, 9-21-2016, https://progressive.org/latest/nuclear-power-causes-global-warming/, Accessed 7-25-2021, LASA-SC)

Every nuclear generating station spews about two-thirds of the energy it burns inside its reactor core into the environment. Only one-third is converted into electricity. Another tenth of that is lost in transmission. According to the Union of Concerned scientists: Nuclear fission is the most water intensive method of the principal thermoelectric generation options in terms of the amount of water withdrawn from sources. In 2008, nuclear power plants withdrew eight times as much freshwater as natural gas plants per unit of energy produced, and up to 11 percent more than the average coal plant. Every day. large reactors like the two at Diablo Canyon, California, individually dump about 1.25 billion gallons of water into the ocean at temperatures up to 20 degrees Fahrenheit warmer than the natural environment. Diablo's "once-through cooling system" takes water out of the ocean and dumps it back superheated, irradiated and laden with toxic chemicals. Many U.S. reactors use cooling towers which emit huge quantities of steam and water vapor that also directly warm the atmosphere. These emissions are often chemically treated to prevent algae and other growth that could clog the towers. Those chemicals can then be carried downwind, along with radiation from the reactors, In addition, hundreds of thousands of birds die annually by flying into the reactor domes and towers. The Union of Concerned Scientists states: The temperature increase in the bodies of water can have serious adverse effects on aquatic life. Warm water holds less oxygen than cold water, thus discharge from once-through cooling systems can create a "temperature squeeze" that elevates the metabolic rate for fish. Additionally, suction pipes that are used to intake water can draw plankton, eggs and larvae into the plant's machinery, while larger organisms can be trapped against the protective screens of the pipes. Blocked intake screens have led to temporary shut downs and NRC fines at a number of plants. And that's not all. All nuclear reactors emit Carbon 14, a radioactive isotope. invalidating the industry's claim that reactors are "carbon free." And the fuel that reactors burn is carbon-intensive. The mining, milling, and enrichment processes needed to produce the pellets that fill the fuel rods inside the reactor cores all involve major energy expenditures nearly all of it based on coal, oil, or gas.

Renewable energy produces waste that is less hazardous, more recyclable, and economically beneficial

Dianne **Plummer 25** (Dianne Plummer, 2-11-2025, Nuclear Vs. Renewables: Which Energy Source Wins The Zero-Carbon Race?, Forbes,

https://www.forbes.com/sites/dianneplummer/2025/02/11/nuclear-vs-renewables-which-energy-sourc e-wins-the-zero-carbon-race/, Accessed 3-29-2025, wayway)

On the other hand, solar panels and batteries face end-of-life disposal challenges. The rapid expansion of solar photovoltaic technology since the early 2000s has positioned it as a cornerstone of the clean energy revolution, but it also presents a looming environmental challenge: end-of-life waste. By the early 2030s, millions of decommissioned solar panels will contribute to a growing global waste stream, yet this challenge carries immense economic potential. According to the International Renewable Energy Agency and the IEA Photovoltaic Power Systems Program, properly managed PV waste could yield 78 million tons of

recoverable raw materials by 2050, valued at over \$15 billion. Establishing recycling and repurposing industries will be critical to mitigating environmental risks while maximizing resource efficiency. However, this requires forward-thinking policy frameworks, strategic investment, and a commitment to integrating circular economy principles into the renewable energy sector. However, initiatives like First Solar's closed-loop recycling are reducing environmental impacts, making solar [renewables] more recyclable than nuclear fuel.

The health effects are tremendous

Cindy **Folkers** 1, ⋈, Linda Pentz Gunter 1 **22** (Cindy Folkers 1, ⋈, Linda Pentz Gunter 1, 10-7-2022, Radioactive releases from the nuclear power sector and implications for child health, PubMed Central (PMC), https://pmc.ncbi.nlm.nih.gov/articles/PMC9557777/, Accessed 3-29-2025, wayway)

Nuclear power plants routinely release radioactivity as part of daily operation. In 2008, a landmark case-control study was published in Germany,43 known as the KiKK study. It revealed an unsettling 1.6-fold increase in all cancers and a 2.2-fold increase in leukaemias among children under 5 years old living within 5 km of operating nuclear power plants. In general, the incidences were higher the closer the children lived to the nuclear plant. The KiKK findings were backed up by other studies44 and a meta-analysis.45

Rebuttal

The US government has already invested record amounts into nuclear energy

Energy.gov, 6-27-20**24** // // DOE Announces \$2.7 Billion From President Biden's Investing in America Agenda to Boost Domestic Nuclear Fuel Supply Chain //

https://www.energy.gov/articles/doe-announces-27-billion-president-bidens-investing-america-agenda-boost-domestic-nuclear // accessed 4-4-2025 // ashe

Investment Supplements Historic Action Taken by the Biden-Harris Administration to Produce Clean, Reliable Energy and Meet the Needs of a Fast-Growing Economy WASHINGTON, D.C. — In support of President Biden's efforts to strengthen America's energy security and create new good-paying jobs, the U.S. Department of Energy (DOE) today issued a request for proposals (RFP) to purchase low-enriched uranium (LEU) from domestic sources. Today's action will help spur the safe and responsible build-out of uranium enrichment capacity in the United States, promote diversity in the market, and provide a reliable supply of commercial nuclear fuel to support the energy security and resilience of the American people and domestic industries, free from Russian influence. This RFP is

BILLION dollars of aid

They tried to tell you that is was cheaper to invest in nuclear energy, but empirically, nuclear power costs billions of dollars.

And in the past, this aid has been proven to NOT work

Ariel **Cohen from just last month finds**, Forbes, 3-20-2025 // // The Supreme Court Will Decide The American Nuclear Industry's Future //

https://www.forbes.com/sites/arielcohen/2025/03/20/the-supreme-court-will-decide-the-american-nuclear-industrys-future/// accessed 4-4-2025 // ashe

Yucca mountain, a nuclear project in Nevada was gievn gov aid, but eight years and over 19 BILLION DOLLARS OF AID, the government abandoned its plans with zero results.

After an investigative period, Yucca Mountain, Nevada, was selected as a site for an American nuclear waste storage facility. During the search period, the Chornobyl disaster occurred in Ukraine, triggering fear in the public, timidity in the industry, and souring national views on nuclear power. Despite this development, the Yucca Mountain project pressed on. In 2002, Congress overruled

objections to the plant brought by the state of Nevada. The Need for Political Will on Nuclear Waste Policy Eight years later, with construction at Yucca incomplete, President Obama's Energy Secretary Steven Chu announced that the administration was abandoning its plans to finish the waste storage facility. The DOE withdrew its licensing application for the site, declaring its intentions to find a more viable location and officially shutting down the project with haste and lack of documentation, which was subsequently criticized by the Government Accountability Office. The U.S. Government spent over \$19 billion on Yucca Mountain with zero results for the taxpayer.

It's been years and none of their problems have been solved. There's a reason, nuclear is not the way.

But now, On their c1 about improving aging reactors:

US already invested substantially in nuclear energy - their impact doesn't happen empirically

https://www.energy.gov/ne/articles/newly-signed-bill-will-boost-nuclear-reactor-deployment-united-states

https://news.harvard.edu/gazette/story/2025/01/nuclear-has-changed-will-the-u-s-change-with-it/

AND, despite getting additional federal investment, reactors still got decommissioned Levy '25 reveals,, no less reactors were terminated in the U.S. despite getting federal aid. Sure, improving aging reactors is an issue, but its already being solved in the US. The aid that nuclear power plants get is enough to replace old reactors, but what levy '25 shows is that ADDITIONAL aid doesn't lead to more reactors being saved.

2] Aging reactors aren't necessarily bad - they get updated constantly
Also, remember in crossfire they have conceded that there has never been an accident due to an old reactor.
Their response was that there is a "risk". Risks literally do not matter. Theres a risk that a meteor could hit us tomorrow, we arent increasing investment to asteroid deterrence.

On their c2 about environment:

Nuclear Energy is terrible for the climate

Z. Jacobson 24 [Mark Z. Jacobson, "7 reasons why nuclear energy is not the answer to solve climate change", 10/10/2024, One Earth, https://www.oneearth.org/the-7-reasons-why-nuclear-energy-is-not-the-answer-to-solve-climate-change/, Accessed 04/02/2025] //IA

There is a small group of scientists that have proposed replacing 100% of the world's fossil fuel power plants with nuclear reactors as a way to solve climate change. Many others propose nuclear grow to satisfy up to 20 percent of all our energy (not just electricity) needs. They advocate that nuclear is a "clean" carbon-free source of power, but they don't look at the human impacts of these scenarios. Let's do the math... **One nuclear power**

plant takes on average about 14-1/2 years to build, from the planning phase all the way to operation. According to the World g-CO2/kWh over 100 yea

But then, Nuclear energy also contributes to climate change more than renewables

Joscha **Weber 21** (Joscha Weber, 11-29-2021, Fact check: Is nuclear energy good for the climate? – DW – 11/29/2021, dw,

https://www.dw.com/en/fact-check-is-nuclear-energy-good-for-the-climate/a-59853315, Accessed 3-29-2025, wayway)

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