

We negate,

Contention 1 is Climate

There are two ways voting affirmative will deck the climate

The first is forcing trade off

The market for renewables is booming now

Business Wire 20 (Business Wire, Business Wire is an American company that disseminates full-text press releases from thousands of companies and organizations worldwide to news media, financial markets, disclosure systems, investors, information web sites, databases, bloggers, social networks and other audiences, "United States Renewable Energy Market Report 2020: Growth, Trends, and Forecast to 2025" 11-17-2020, Business Wire <https://www.businesswire.com/news/home/20201117006059/en/United-States-Renewable-Energy-Market-Report-2020-Growth-Trends-and-Forecast-to-2025---ResearchAndMarkets.com> DOA 2/28/25)SRT

The renewable energy market in the United States is expected to grow at a CAGR of more than 6% during the forecast period of 2020-2025. Factors such as supportive government policies and efforts to meet the rising power demand using renewable energy sources are expected to be significant contributors to the growth of the market. With the government's commitment in more than 50 cities for 100% renewable and a contribution from major universities and colleges for 100% renewable campus to reduce carbon emissions, the share of renewable is expected to grow significantly. The declining costs of renewable technologies are becoming competitive with fossil fuel sources, and additional subsidies on renewables are driving the renewable energy market further. On the other hand, factors like a booming natural gas market that is competing with renewable energy and the limited energy supply from variable renewable energy sources are few restraining factors for the United States renewable energy market. Solar energy in the United States is one of the fastest-growing renewable power sources, with a hold of 2.53% in total electricity generation in 2018. A significant decline in the price of solar power installations has led to the rapid surge in demand for solar panels. With the resolution signed by more than 250 mayors of different cities in the United States conference of mayors in 2017, the rapid transition from fossil to renewable is expected in many cities, and this, in turn, is likely to create an ample amount of opportunities for renewable energy companies shortly.

Which is why,

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-for-the-climate-crisis-and-businesses> DOA 3/17/25)SRT

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 renewables 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.

If we stay on this track

UCS 17 (Union of Concerned Scientists, The Union of Concerned Scientists is a member-supported nonprofit that's fighting for a safer and healthier world, "Benefits of Renewable Energy Use", 12-20-2017,

<https://www.ucsusa.org/resources/benefits-renewable-energy-use> DOA 2/28/25)SRT

Increasing the supply of renewable energy would allow us to replace carbon-intensive energy sources and significantly reduce US global warming emissions. For example, a 2009 UCS analysis found that a 25 percent by 2025 national renewable electricity standard would lower power plant CO2 emissions 277 million metric tons annually by 2025—the equivalent of the annual output from 70 typical (600 MW) new coal plants [4]. In addition, a ground-breaking study by the US Department of Energy's National Renewable Energy Laboratory (NREL) explored the feasibility of generating 80 percent of the country's electricity from renewable sources by 2050. They found that renewable energy could help reduce the electricity sector's emissions by approximately 81 percent

A large meta-study in 123 countries over 25 years concluded

Sovacool 20 (Benjamin K. Sovacool, Benjamin K. Sovacool, Director of the Boston University Institute for Global Sustainability (IGS), is a Professor in the Department of Earth & Environment. He works as a researcher and consultant on issues pertaining to global energy policy and politics, energy security, energy justice, climate change mitigation, and climate change adaptation. More specifically, his research focuses on renewable energy and energy efficiency, the politics of large-scale energy infrastructure, designing public policy to improve energy security and access to electricity, the ethics and justice of energy, and building adaptive capacity to the consequences of climate change, Science Policy Research Unit (SPRU), School

of Business, Management, and Economics, University of Sussex, Sussex, UK, "Differences in carbon emissions reduction between countries pursuing renewable electricity versus nuclear power", 10/5/20, Nature Energy

<https://www.nature.com/articles/s41560-020-00696-3#:~:text=Some%20may%20misconstrue%20our%20findings%20statistically%20significant%20ones> DOA 2/29/25)SRT

Two of the most widely emphasized contenders for carbon emissions reduction in the electricity sector are nuclear power and renewable energy. While scenarios regularly question the potential impacts of adoption of various technology mixes in the future, it is less clear which technology has been associated with greater historical emission reductions. Here, we use multiple regression analyses on global datasets of national carbon emissions and renewable and nuclear electricity production across 123 countries over 25 years to examine systematically patterns in how countries variously using nuclear power and renewables contrastingly show higher or lower carbon emissions. We find that larger-scale national nuclear attachments do not tend to associate with significantly lower carbon emissions while renewables do. We also find a negative association between the scales of national nuclear and renewables attachments. This suggests nuclear and renewables attachments tend to crowd each other out.

That's devastating---investing in nuclear cuts off funds to renewables

The second way aff crushes the climate is through nuclear energy

Nuclear energy is a carbon energy source and causes additional deaths---look to China Jacobson 24 (Mark Z. Jacobson, Mark Z. Jacobson's career has focused on better understanding air pollution and climate problems and developing large-scale clean, renewable energy solutions to them. Toward that end, he has developed and applied three-dimensional (3-D) atmosphere-biosphere-ocean computer models and solvers to simulate and understand air pollution, weather, climate, and renewable energy systems. He has also developed roadmaps to transition countries, states, cities, and towns to 100% clean, renewable energy for all purposes and computer models to examine grid stability in the presence of 100% renewable energy. Jacobson has been a professor at Stanford University since 1994. His research crosses two fields: Atmospheric Sciences and Energy. To date, he has published 185 peer-reviewed journal articles and given ~750 invited talks, "Seven Reasons Why New Nuclear Energy is an Opportunity Cost That Damages Efforts to Address Climate Change and Air Pollution", 1/17/24, Stanford edu,

<https://web.stanford.edu/group/efmh/jacobson/Articles/I/24-01-MZJ-HRTestimony.pdf> DOA 3/1/25)SRT

Carbon-Equivalent Emissions and Air Pollution There is no such thing as a zero- or close-to-zero emission nuclear reactor. Even existing reactors emit due to the continuous mining and refining of uranium needed for the reactor. Emissions from new nuclear are 78 to 178 g-CO₂/kWh (12), not close to 0. Of this, 64 to 102 g-CO₂/kWh over 100 years are emissions from the background grid while consumers wait 10 to 22 years for nuclear to come online or be refurbished, relative to 1 to 5 years for wind or solar. In addition, all nuclear reactors emit 4.4 g-CO₂e/kWh (where CO₂e means carbon-dioxide-equivalent emissions) from the water vapor and heat they release. This contrasts with solar panels and wind turbines, which reduce heat or

water vapor fluxes to the air by about 2.2 g-CO₂e/kWh for a net difference from this factor alone of 6.6 g-CO₂e/kWh (12). The rest of the emissions associated with nuclear are due to the CO₂e emitted during the construction and decommissioning of the reactor and due to producing the energy needed to mine and refine uranium. Because of its long PTO time and its construction emissions, a nuclear reactor may take decades after it starts running to offset the emissions it allowed from the grid during its PTO phase and from its construction. The delays also cause additional deaths. For example, China's investment in nuclear reactors that take so long between planning and operation, instead of wind or solar, resulted in China's CO₂ emissions increasing by 1.3 percent from 2016 to 2017 rather than declining by about 3 percent. The resulting difference in air pollution emissions may have caused 69,000 additional air pollution deaths in China in 2016 alone, with additional deaths in years prior and since. SMRs face similar carbon-equivalent emissions and air pollution mortality problems as large reactors.

Additionally, even if you buy that nuclear energy is good---it will take too long to be effective. Jacobson 24 (Mark Z. Jacobson, Mark Z. Jacobson's career has focused on better understanding air pollution and climate problems and developing large-scale clean, renewable energy solutions to them. Toward that end, he has developed and applied three-dimensional (3-D) atmosphere-biosphere-ocean computer models and solvers to simulate and understand air pollution, weather, climate, and renewable energy systems. He has also developed roadmaps to transition countries, states, cities, and towns to 100% clean, renewable energy for all purposes and computer models to examine grid stability in the presence of 100% renewable energy. Jacobson has been a professor at Stanford University since 1994. His research crosses two fields: Atmospheric Sciences and Energy. To date, he has published 185 peer-reviewed journal articles and given ~750 invited talks, "Seven Reasons Why New Nuclear Energy is an Opportunity Cost That Damages Efforts to Address Climate Change and Air Pollution", 1/17/24, Stanford edu,

<https://web.stanford.edu/group/efmh/jacobson/Articles/I/24-01-MZJ-HRTestimony.pdf> DOA 3/1/25)SRT

Let's look at the facts. All nuclear reactors in history have taken 10 to 22 years from the planning phase to operation (2). Recently, the range has increased to 17 to 22 years in North America and Europe (2). According to the World Health Organization, about 7.4 million people die from outdoor plus indoor air pollution each year, with more than 90 percent of these deaths from energy-related combustion (3). So, switching the world's energy to nuclear would result in at least 113 million people dying as we wait at least 17 years for all the new nuclear reactors to be built in an all nuclear scenario. On top of that, as we wait until 2041 (17 years) for even a single new reactor to operate, global temperatures will accelerate beyond 1.5o C above the 1850-1900 average. The 1.5o C threshold is considered dangerous for the planet by the Intergovernmental Panel on Climate Change (4). Based on the remaining carbon budget, 80% of the chemicals that cause warming must be eliminated by 2030 and 100% by 2035-2050 to avoid 1.5o C (5). As such, new nuclear is not useful at all for solving the climate and air pollution problems we face. Utility-scale wind and solar farms, on the other hand, take an average of only one to five years from planning to operation. Rooftop solar PV projects are down to only a six-month timeline. So, transitioning to 100% clean, renewable energy for all purposes as soon as possible would result in tens of millions fewer deaths than a nuclear scenario, and may also

avoid 1.5o C warming. This illustrates a major problem with nuclear energy and why renewable energy -- in particular Wind, Water, and Solar (WWS)-- avoids this problem. Nuclear, though, doesn't have just one problem. It has seven. Here are the seven major problems with nuclear energy.

Absent investment,

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

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

Contention 2 is Health

Despite worldwide investment---nuclear waste is still a pressing issue

Igini 22 (Martina Igini, Martina is a journalist and editor with experience covering climate change, extreme weather, climate policy and litigation. She is the Editor-in-Chief at Earth.Org and Kids.Earth.Org. Before moving to Asia, she worked in Vienna at the United Nations Global Communication Department and in Italy as a reporter at a local newspaper. She holds two BA degrees - in Translation Studies and Journalism - and an MA in International Development from the University of Vienna. At Earth.Org, she is responsible for breaking news coverage, feature writing and editing, and newsletter production. She singlehandedly manages over 100 global contributing writers and oversees the publication's editorial calendar. Since joining the newsroom in 2022, she's successfully grown the monthly audience from 600,000 to more than one million, "The Nuclear Waste Disposal Dilemma", 09/12/2022, Earth.Org, <https://earth.org/nuclear-waste-disposal>)HS

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. Instead of relying on a potentially destructive energy source like nuclear power, countries should put more effort into shifting to renewables

The US especially isn't making progress---affirming compounds the issue

Pekow 21 (Charles Pekow is an award-winning investigative reporter who has covered environmental issues for the Washington Monthly, In These Times, Forest Magazine, and other publications, I am an independent investigative journalist who has constantly reinvested myself to keep up with the times. I've written extensively on education from preschool to higher ed, government and social issues as well as environmental and legal matters. In recent years, I have written mainly but not exclusively about the alcohol industry, outdoor recreation and active transportation. I have also written book and music reviews and contributed to several books, "US Still Doesn't Know How and Where It Will Store Its Growing Pile of Nuclear Waste"; Earth Island Journal; December 23, 2021,

<https://www.earthisland.org/journal/index.php/articles/entry/us-still-doesnt-know-how-and-where-it-will-store-its-growing-pile-of-nuclear-waste/> DOA 3/2/25)SRT

A year-and-a-half after a scathing Government Accountability Office (GAO) report revealed that the US Department of Energy (DoE) has no coherent plan in place to manage nuclear waste from weapons manufacturing piling up at more than 150 sites across the country, the DoE has made little progress in developing a safe and strategic plan to handle the waste. Meanwhile, the estimated cost of handling the material is rising steadily — \$512 billion at last count — and the federal government hasn't yet figured out how to pay for it. And, of course, much of the waste will have to somehow remain safely stored for 10,000 years or more, a timeframe even more mind boggling than the size of the debt.

No end to this problem is in sight---and even if it was it would take too long

Macfarlane 23 (Allison Macfarlane Dr. Allison M. Macfarlane is Professor and Director of the School of Public Policy and Global Affairs within the Faculty of Arts at UBC. Dr. Macfarlane has held both academic and government positions in the field of energy and environmental policy, especially nuclear policy. Most recently, she directed the Institute for International Science and Technology Policy at the George Washington University. She recently held a fellowship at the Wilson International Center for Scholars in Washington, DC and was Fulbright Distinguished Chair in Applied Public Policy at Flinders University and Carnegie Mellon Adelaide in Australia. The first geologist (and the third woman) to chair the U.S. Nuclear Regulatory Commission from 2012-2014, Dr. Macfarlane holds a doctorate in earth science from MIT and a bachelor's of science from the University of Rochester. 3/6/23, Scientific American

<https://www.scientificamerican.com/article/nuclear-waste-is-piling-up-does-the-u-s-have-a-plan/> DOA 3/4/25)SRT

Outrageously, this money, actually collected from electricity ratepayers, not taxpayers, is being used to offset the national debt. Even if the U.S. starts today, it will take decades to site, design and build a facility for disposal of its nuclear waste stockpile. That process must accelerate now, before the reactors we need for their electricity run out of room for their growing inventories of highly radioactive waste.

New investment will make it worse

Swartz 22 (Mark Swartz, No author quals,"Small modular reactors produce high levels of nuclear waste", 5/30/22, Stanford, <https://sustainability.stanford.edu/news/small-modular-reactors-produce-high-levels-nuclear-waste#:~:text=Small%20modular%20reactors%2C%20long%20touted,the%20University%20of%20British%20Columbia> DOA 3/4/25)SRT

Small modular reactors, long touted as the future of nuclear energy, will actually generate more radioactive waste than conventional nuclear power plants, according to research from Stanford and the University of British Columbia.

Nuclear reactors generate reliable supplies of electricity with limited greenhouse gas emissions. But a nuclear power plant that generates 1,000 megawatts of electric power also produces radioactive waste that must be isolated from the environment for hundreds of thousands of years. Furthermore, the cost of building a large nuclear power plant can be tens of billions of dollars. To address these challenges, the nuclear industry is developing small modular reactors that generate less than 300 megawatts of electric power and can be assembled in factories. Industry analysts say these advanced modular designs will be cheaper and produce fewer radioactive byproducts than conventional large-scale reactors. But a study published May 31 in Proceedings of the National Academy of Sciences has reached the opposite conclusion. "Our results show that most small modular reactor designs will actually increase the volume of nuclear waste in need of management and disposal, by factors of 2 to 30 for the reactors in our case study," said study lead author Lindsay Krall, a former MacArthur Postdoctoral Fellow at Stanford University's Center for International Security and Cooperation (CISAC). "These findings stand in sharp contrast to the cost and waste reduction benefits that advocates have claimed for advanced nuclear technologies."

This kills millions---affecting generations, it's cyclical, AND scalar

Morris 16 (Margaret Morris, Inventor of the GEO-DMF System for robotically building virtually permanent automated solid rock outer space facilities April 5 2016. Institute for Ethics and Emerging Technologies "Nuclear Waste Pollution is an Existential Risk that Threatens Global Health" <https://archive.ieet.org/articles/morris20160405.html>)AA+DM

Unlike many radioactive materials that degrade fairly rapidly, some will remain intensely poisonous for incredibly long periods. Plutonium-240 (Pu-240) has a half-life of 6,560 years. The half-life is the time it takes for radioactive decay to decrease by half. But decay does not occur at an even pace, and radioactive isotopes are dangerous for much longer – typically 10 to 20 times the length of their half-life. Pu-238 has an 88-year half-life, and is used for space vehicles despite the frequency of rocket failures. Any exploding rocket including such cargo spreads pollution far and wide. Pu-239 has a half-life of over 24,000 years, and will remain radioactive for about a half a million years. But the situation is more complicated because as Pu-239 decays it transforms to uranium-235 (U-235), which has a half life of 600 to 700 million years. Iodine-129 has a half-life of 16 million years. Pu-244 has a half-life of 80.8 million years. U-238 has a half-life of 4.5 billion years.² Plutonium When taken into the body, isotopes of radioactive plutonium are not fully eliminated and tend to accumulate. They are deadly when sufficiently accumulated. Pu-239 was described by its co-discoverer, chemist Glenn Seaborg, as "fiendishly toxic." In addition to terrible chemical toxicity, plutonium emits ionizing radiation. Pu-239 emits alpha, beta and gamma particles. Gamma radiation can penetrate the entire body and kill cells.

Pu-239 has a robust resonance energy of 0.2 96 electron-volts that can badly damage DNA and produce birth defects that carry over generations.³ The body repairs tissues and DNA, but becomes overwhelmed when plutonium concentrates too heavily. According to a 1975 article in New Scientist Magazine, "But if it is inhaled, 10 micrograms of plutonium-239 is likely to cause fatal lung cancer."⁴ Experts estimate that Pu-239 is so noxious that only one pound would be enough to kill everyone on our planet if it were so evenly dispersed in the air that everyone inhaled it. Although it occurs in nature in exploding stars, almost all plutonium on Earth is man-made – the product of manufacturing nuclear weapons and energy in nuclear power plants. Of the different forms of nuclear products, deadly Pu-239 is very abundant because it is used to make nuclear weapons and is a by-product of energy production in nuclear reactors. As part of the U.S. weapons program (between 1944 and 1988), 114 tons of Pu-239 was produced in nuclear reactors at the Hanford Works facility, in Washington state, and at the Savannah River Site in South Carolina.⁶ Large quantities of this Pu-239 remains at temporary storage facilities at these locations. Hanford stores about 50 million gallons of high-level radioactive nuclear and chemically hazardous wastes in underground storage tanks that were not designed for long-term storage.

Benally 16 quantifies (Klee Benally, Anti-Nuclear Pollution Activist from the Navajo Nation and Indigenous Action, 2016 "Trumpocalypse No: Nuclear Colonialism is Genocide," Indigenous Action, December

23rd, <https://www.indigenoussaction.org/trumpocalypse-no-nuclear-colonialism-is-genocide/> DOA 3/5/25)SRT

We came to our senses after the Fukushima Daiichi Nuclear Power Plant catastrophe in 2011. There are 100 active commercial nuclear reactors in the "U.S." that have generated more than 76,430 metric tons of high-level nuclear waste over the past four decades. Yucca Mountain, a sacred site to the Western Shoshone, is under increased threat of becoming the primary toxic dumping grounds for the nuclear industry. There are more than 15,000 toxic abandoned uranium mines throughout the U.S. that poison communities and threaten precious water ways such as the Colorado River, which more than 40 million people rely on. This largely unknown threat is so severe that it has been called "America's secret Fukushima." Indigenous communities have long been at the front lines of the struggle to stop the deadly legacy of the nuclear industry

Contention 3 is Oil

Current prices will allow for long term diversification of the Gulf Economy

Alsweilem 24 (PhD, economics; visiting scholar with the Stanford University Global Projects Center. Khalid Alsweilem, Prof. Michael Lepech, Dr. Ashby Monk, and Dr. Malan Rietveld, "Saudi Arabia: From the Big Push to the Long Push," Center for Sustainable Development & Global Competitiveness at Stanford University, p. 3-15, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4912451 DOA 3/27/25)Recut SRT

From the Big Push to a Long Push: Vision 2030 and Beyond Eight years ago, the Saudi Arabian government announced the most ambitious plan yet to reduce the Kingdom's historical economic dependence on oil. The implementation of Vision 2030 has dramatically accelerated since 2022, with the current investment boom representing a classic "Big Push" towards diversification. Gigascale infrastructure investments are complemented by industrial policies focused on renewable energy, refining, chemical production, and the Kingdom's abundance of natural resources beyond oil, while sweeping social, regulatory and legal reforms target high-value service sectors, notably tourism, technology and financial services. Recently, the PIF has accelerated venture-style investments in biotech, artificial intelligence (AI), consumer services and automated manufacturing – underlined by the establishment of a \$40bn to \$100bn fund focused on AI investment, which would make the Kingdom a dominant global investor in this area. While much about Vision 2030 is pioneering and historic, the Big Push approach to public investment has been a recurring feature in the history of commodity-dependent economies. In the Middle East, sustained commodity windfalls have historically been accompanied by sharp increases in public investment to break the region's historical oil dependence. Based on seminal work by Rosenstein-Rodan (1943) and later by Murphy, Shleifer and Vishny (1989), Easterly (2006) defines a Big Push as the "simultaneous increase in investment in many different sectors, as well as a package of complementary policy changes and technical interventions", coupled with "a national plan and administrative apparatus to direct the investments, technical interventions, and policy changes." The long-term challenge of diversifying the Saudi economy, however, means that the Big Push will inevitably evolve into a "Long Push", extending well beyond 2030. Successful diversification strategies involve generational policy and capital commitments due to the gradual cultivation of comparative advantages. In two recent papers, Alsweilem, Cader and Rietveld (2023a and 2023b) apply the lens of Economic Fitness to the challenge of designing diversification strategies, industrial policy and SWF/SDF investment programs. This approach captures the diversity of an economy's productive capabilities and its ability to produce complex products. Productive capabilities, mapped using disaggregated export data, are determined by the level of human and physical capital, intellectual property, quality of institutions, infrastructure, skills and technical know-how. Particularly when starting from initial conditions of a narrow industrial base, relatively expensive input costs and high oil dependence, the pursuit of diversification through increased economic fitness is a deeply strategic, long-term undertaking. The Saudi advantage is an ability to harness large oil revenues for sustained public investment. The inevitable extension of the ambitious timeline of Vision 2030 will therefore be a positive development, but one that requires economic resilience across and beyond the oil-revenue cycle. The current level of public investment can be accommodated by oil revenues associated with the US\$75-85 per barrel oil-price range that has prevailed since the second half of 2022, coupled with limited use of debt financing started from a low level of overall indebtedness. [[FIGURE OMITTED]] At the same time, under the current policy mix, the prevailing oil-revenue levels will not accommodate rebuilding of foreign-asset pools that were significantly drawn upon following the post-2014 shock. Indeed, the increase in public and PIF investment since 2022 has been accompanied by an increase in new external-debt issuance, rather than the accumulation of net foreign assets (see Figure 1). Concurrently, the PIF has outlined the need to increase new capital deployments to around US\$70bn per year from the current range of US\$40bn to US\$50bn to continue meeting its

Vision 2030 targets.¹ Resilience across the oil-revenue cycle requires rebuilding and growing a foreign-asset portfolio that will diversify Saudi Arabia's wealth and income sources. Access to stable and sustainable streams of foreign income is of critical importance to the resilience of the Saudi economy, as this foreign income finances the import of most consumer goods, from cars to food, medical supplies, clothing, technological and household appliances, and essential services. Moreover, in the context of Vision 2030, foreign income is needed to pay for the importing of most intermediate goods – capital goods, machinery, raw materials, chemicals, and services – associated with large-scale infrastructure and megaproject investments. Finally, preserving external balance in the context of rising imports is critical to macroeconomic stability and resilience, given the fixed exchange rate between the Saudi Riyal and US dollar. Historically, oil exports have been the near-exclusive source of fiscal revenue and hard-currency earnings through which to pay for imports and manage the fixed exchange rate. Thus, income from the foreign assets can play a critical role in supplementing oil revenue in funding the sustained domestic-investment push (the Long Push) set in motion by Vision 2030.

Current demand will supply the money BUT a shock could be detrimental
Alsweilem 24 (PhD, economics; visiting scholar with the Stanford University Global Projects Center. Khalid Alsweilem, Prof. Michael Lepech, Dr. Ashby Monk, and Dr. Malan Rietveld, "Saudi Arabia: From the Big Push to the Long Push," Center for Sustainable Development & Global Competitiveness at Stanford University, p. 3-15, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4912451 DOA 3/27/25)Recut SRT
Higher taxation may be considered once a critical level of investment has been attracted and the Saudi tax system has evolved to the point where a comprehensive package of investment and tax incentives can be offered to long-term investors. IV. Increasing Resilience: The Role of Foreign Assets and Investment Income While 2024 oil prices are currently within a range that allows Saudi Arabia to break even on a broadly expansionary fiscal path and cover its import costs, the reform momentum that was initiated by the 2014 collapse in oil prices would be tested in the event of a similar decline in oil revenues. Generating hard-currency financial income is a critical function of many SWFs, with offshore allocations accounting for all or most assets of the Norwegian, Abu Dhabi, Kuwaiti, Qatari and Chilean funds (in addition to several non-commodity SWFs, such as those from New Zealand, Australia, China and Singapore). In this section, we outline the conceptual case for accumulating foreign assets, particularly in resource-dependent economies, before considering how such a policy could be designed and implemented in Saudi Arabia.

A shift to nuclear energy will crowd out oil demand
Adams 13 (Rod Adams, no author quals, 12-10-13, ANS Nuclear Cafe, "Do oil and gas suppliers worry about nuclear energy development?," <http://ansnuclearcafe.org/2013/12/10/do-oil-and-gas-suppliers-worry-about-nuclear/>)Recut SRT
Carol Browner, who served as the Environmental Protection Agency administrator in a Democratic administration, insisted that nuclear energy has an important role to play in reducing fossil fuel dependence and reducing CO2 emissions. Those examples show that the most receptive audiences for the nuclear energy alternative are people who buy a lot of fuel without selling any, and people who are deeply concerned about air pollution and climate change. The

former understand that having additional supplies of reliable power will mean more competition to provide more stable and lower prices. The latter group knows that we cannot continue to dump CO₂ into the atmosphere at an ever-increasing rate without unexpected consequences. It's time to get more aggressive in nuclear energy marketing. The uranium industry should teach people how heat is fungible in order to excite its potential supporters and capture attention from energy pundits. Nuclear fission heat has already reduced the world's dependence on oil; there is plenty of remaining opportunity. Nuclear energy pushed oil out of the electricity market in most of the developed world. Fission has replaced oil combustion in larger ships, but most others still burn oil. Nuclear-generated electricity has replaced oil burned for locomotives, city trolleys, and space heat, but there is room for substantial growth in these markets. Uranium producers should be influential members in the coalitions that are working to electrify transportation systems. Fission heat, especially with higher temperature reactors, can replace oil heat in industrial processes, including those well-proven processes that can turn coal, natural gas, and biomass into liquid fuels. Fission can also reduce oil use by pushing gas out of the power generation business, thus freeing up more natural gas for other uses. As the gas promoters love to point out, methane is a flexible and clean burning fuel. It is important to remind their customers that fuel burned in power plants is not available for any other use.

Rapid energy transition will collapse oil demand

Al-Sarihi 23 (PhD, a former associate at KAPSARC. PhD, senior associate in the Utilities and Renewables program @ KAPSARC. Aisha and **Salaheddine Soummane, "Impacts of Global Climate Policies on Middle Eastern Oil Exporters: A Review of Economic Implications and Mitigation Strategies," p. 6-11, Impacts of Global Climate Policies on Middle Eastern Oil ... <https://www.kapsarc.org/research/publications/impacts-of-global-climate-policies-on-middle-eastern-oil-exporters-a-review-of-economic-implications-and-mitigation-strategies/> DOA 3/26/25)recut SRT

climate policies mainly result in losses for oil exporting countries. Moreover, these seven studies suggest that Middle Eastern countries bear the highest mitigation costs if climate policies are implemented. These costs may be measured as shares of oil export revenues or as shares of GDP. The high mitigation costs arise because the Middle East is highly dependent on oil revenues. The models typically find that the revenue losses for Middle Eastern oil exporters result from oil price declines rather than from export volume reductions. Indeed, the region has abundant and cost-competitive conventional oil reserves, meaning that its exports are unlikely to drastically decline. Middle Eastern countries can leverage this cost advantage to increase oil exports now, under the threat of an accelerated energy transition. However, doing so may flood the market and drive oil prices even lower, thereby aggravating oil rent losses (Waisman, Rozenberg and Hourcade 2013).⁵

Other countries will model

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Moreover, successful energy policies in one jurisdiction are likely to face improved chances of adoption elsewhere.¹⁴⁶ This is partly because other jurisdictions can take advantage of the early adopter's experience in designing and implementing the policy. It may also result from energy cost reductions due to expanded markets that make similar policies "easier sells" in other states. As one scholar puts it, "[w]hen one place decides to invest heavily in clean technology, it brings down costs for others. As technology costs decline, the camel's proverbial nose is under the tent."¹⁴⁷ For this reason, to the extent that the IRA leads to technological improvements that lower costs in the United States, it may accelerate the energy transition in other countries. Competition between countries for clean energy industries may also expand the impact of the IRA. If other countries also choose to subsidize their clean energy sectors, they can benefit from the positive feedback discussed in this paper. The U.S. would then benefit from the resulting decline in their carbon emissions.

That will kill stability in the gulf and beyond

Ureta 20 (Ivan Ureta, PhD in IR, PhD in economic history, International Relations and Business professor at IE University, lecturer at the University of Applied Sciences of Southern Switzerland, and a Research Fellow at the Department of Middle East and Mediterranean Studies King's College London. "What are the impacts of Sliding Oil Prices on Regional Security and Stability in the Gulf Region?", The Journal of Middle East and North Africa Sciences, <https://tinyurl.com/mtms2jmw>) Recut SRT

Conclusions: This paper discusses the impacts and the implications of low oil prices on the regional stability and security in the Gulf region. As per theoretical related aspects, the paper has considered empirical evidence that shows a correlation between high oil prices and inter-state conflict potential and instability. The paper has focused on discussing how Gulf countries have developed their nation-building processes. They have evolved and developed by considering the importance of engaging in integration processes which would ensure domestic cohesion and regional security. These strategies have been underpinned and funded by oil revenues and these nations despite being aware of their dependency on these resources have made little progress in successfully diversifying their economies. The internal stability in Gulf countries has been equally funded by revenues from oil by establishing a social contract with the aiming of guaranteeing loyalty to the regime and a sense of belonging. Although important episodes of low oil prices have challenged these economies in the past, the radical changes that conduced to explosion of the Arab Spring and the following aftermaths have added increasing quotas of uncertainty to the entire economic, political, social and diplomatic ecosystem of the Gulf. The Gulf monarchies pressed by these societal, economic, cultural and political forces have tried to mitigate their potential meltdown by sponsoring and by buying with high sums of money and resources new loyalties, new balances and new alliances. In parallel these economies have been investing massively in weaponry considering the long-standing rivalries and conflicts with neighboring countries such as Iran. This investment strategy has been spurred by high oil prices between 2010 and 2014. From mid-2014 onwards, international

oil prices plummeted and Gulf countries started to experience fiscal deficits which did not allow them to continue with their generous subsidies and policies to ensure both domestic and international security and stability. Despite the negative economic and financial prospect, these countries continued their policy of high investments on weaponry, especially Saudi Arabia and Oman. Gulf countries challenged by an international context where the disengagement of the US has been progressive, had tried to rehearse new diplomatic, political and economic formulas to allow them to progress as a Union, although lately the GCC has been acting more as a Council undergoing several pressures and transformations. A long-lasting context of sliding oil prices have generated more regional atomization as Gulf states aim at maximizing, individually or in coalition, their benefits within an environment of latent conflict. In this vein, low oil prices have generated more uncertainty and insecurity in the entire region, endangering the continuity of the current regimes and boosting the potential for conflict and instability. Considering this scenario, and in accepting that the global oil demand will diminish over the next years if Gulf states fail in [to] efficiently and sustainably implement economic diversification policies, the collapse of the gulf monarchies will be a matter of time. However, this process of possible meltdown may entail long processes of readjustments and will increase the potential of conflict and instability across the entire Middle Eastern space.

Escalation would be fast and devastating

Klare 18 (Dr. Michael T. Five Colleges Professor of Peace and World Security Studies at Hampshire College, Ph.D. from the Graduate School of the Union Institute, BA and MA from Columbia University, Member of the Board of Director at the Arms Control Association, Defense Correspondent for The Nation, "Gearing Up for the Third Gulf War", Common Dreams, 5/14/2018, <https://www.commondreams.org/views/2018/05/14/gearing-third-gulf-war>) recut SRT A Third Gulf War would distinguish itself from recent Middle Eastern conflicts by the geographic span of the fighting and the number of major actors that might become involved. In all likelihood, the field of battle would stretch from the shores of the Mediterranean, where Lebanon abuts Israel, to the Strait of Hormuz, where the Persian Gulf empties into the Indian Ocean. Participants could include, on one side, Iran, the regime of Bashar al-Assad in Syria, Hezbollah in Lebanon, and assorted Shia militias in Iraq and Yemen; and, on the other, Israel, Saudi Arabia, the United States, and the United Arab Emirates (UAE). If the fighting in Syria were to get out of hand, Russian forces could even become involved. All of these forces have been equipping themselves with massive arrays of modern weaponry in recent years, ensuring that any fighting will be intense, bloody, and horrifically destructive. Iran has been acquiring an assortment of modern weapons from Russia and possesses its own substantial arms industry. It, in turn, has been supplying the Assad regime with modern arms and is suspected of shipping an array of missiles and other munitions to Hezbollah. Israel, Saudi Arabia, and the UAE have long been major recipients of tens of billions of dollars of sophisticated American weaponry and President Trump has promised to supply them with so much more. This means that, once ignited, a Third Gulf War could quickly escalate and would undoubtedly generate large numbers of civilian and military casualties, and new flows of refugees. The United States and its allies would try to quickly cripple Iran's war-making capabilities, a task that would require multiple waves of air and missile strikes, some surely directed at facilities in densely populated areas. Iran and its allies would seek to respond by attacking high-value targets in Israel and Saudi

Arabia, including cities and oil facilities. Iran's Shia allies in Iraq, Yemen, and elsewhere could be expected to launch attacks of their own on the U.S.-led alliance. Where all this would lead, once such fighting began, is of course impossible to predict, but the history of the twenty-first century suggests that, whatever happens, it won't follow the carefully laid plans of commanding generals (or their civilian overseers) and won't end either expectably or well. Precisely what kind of incident or series of events would ignite a war of this sort is similarly unpredictable. Nonetheless, it seems obvious that the world is moving ever closer to a moment when the right (or perhaps the better word is wrong) spark could set off a chain of events leading to full-scale hostilities in the Middle East in the wake of President Trump's recent rejection of the nuclear deal. It's possible, for instance, to imagine a clash between Israeli and Iranian military contingents in Syria sparking such a conflict. The Iranians, it is claimed, have set up bases there both to support the Assad regime and to funnel arms to Hezbollah in Lebanon. On May 10th, Israeli jets struck several such sites, following a missile barrage on the Israeli-occupied Golan Heights said to have been launched by Iranian soldiers in Syria. More Israeli strikes certainly lie in our future as Iran presses its drive to establish and control a so-called land bridge through Iraq and Syria to Lebanon. Another possible spark could involve collisions or other incidents between American and Iranian naval vessels in the Persian Gulf, where the two navies frequently approach each other in an aggressive manner. Whatever the nature of the initial clash, rapid escalation to full-scale hostilities could occur with very little warning.