We negate, Resolved: The United States should increase its use of nuclear energy for commercial energy production.

Our sole contention is that nuclear power would disrupt the green technology revolution.

Commercial nuclear power has all too long been ignored. <u>Ahmed Abdulla at The Center for</u> <u>Energy Research</u> writes in 2018: Nuclear power appears on the verge of collapse in the US...Across the country, they face grave threats to their profitability and...their continued operation....efforts to build new nuclear reactors in this country have been either canceled or beset by substantial delays.

In fact, the current failure of nuclear power has paved the way for a green technology revolution that could make an enormous dent in climate change. <u>Office of Energy Efficiency & Renewable Energy</u> reports that renewable technologies accounted for 64% of all new electricity generating capacity constructed in the U.S. [A fundamental power sector transformation is underway as states increasingly adopt renewable energy while wind and solar prices keep tumbling.]

Without disruption, America will be powered by green technology in the foreseeable future. However, increasing nuclear power will disrupt this crucial shift in two ways.

The first is by decreasing public sector investment.

There is a direct tradeoff between green technology and nuclear power in terms of government funding. <u>Amory Lovins of Forbes Magazine</u> reports in 2019: The economic principle of "opportunity cost" means you can't spend the same money on two different things at the same time. Subsidizing nuclear power replaces subsidies for renewables.

In addition, financing the nuclear sector leads to lobbying against green technology. Lyderson of Energy News in 2015 finds that the nuclear energy lobbyists have been targeting solar and wind energy companies at the federal, state, and local levels. Indeed, she concludes that these lobbyists have lobbied against tax incentives for wind and solar and have secured changes in regional capacity markets that would harm solar and wind.

Historically, this tradeoff has caused disaster for green technology in the United States. <u>Stephanie Cook for The New York Times</u> in 2009 reported: [While] Obama made clean and efficient energy a top priority...the Energy Department [was] too weighed down by nuclear energy program [to achieve any goals].

The second is decreasing private investment.

Increasing commercial nuclear power would mean more investment in the industry. <u>Hall of Investopedia</u> finds that government support of an industry is a powerful incentive for financial institutions to give those industries favorable terms. This preferential treatment means more capital and resources will be spent in that industry. This resource drain affects other...competitive industries that now have to work harder to gain access to capital.

As a result, focusing on nuclear energy destroys green technology momentum by removing Private Investment. <u>Rachel Cleetus, director of the Union of Concerned Scientists</u> explains in 2019: Over-Reliance on nuclear energy stalls the development of technologies needed for a transition to a low-carbon future. Instead, Capital investment needed for renewable energy is funneled off to build more nuclear power plants

This is historically proven. Harvey of the Guardian finds that In the EU where nuclear energy is rapidly expanding, Investment in renewables plummeted to the lowest level in a decade. She continues that the best hope of a revival is likely to be a return of political commitment to the sector

The impact is ending efforts at preventing climate change.

In countries that increased nuclear power in comparison to green technology, they saw devastation. For example, <u>Mark Jacobson of Stanford University</u> quantifies: China's prioritization of nuclear energy over renewables resulted in [carbon] emissions increasing 1.3 percent. The difference in air pollution emissions caused 69,000 *additional* air pollution deaths in [one year].

In comparison, achieving a green America would curb climate change to the maximum level.

The EPA in 2019 finds that the United States makes up 15 percent of total global emissions, the second largest amount of emissions from any other country.

Addressing even chunks of climate change is crucial. <u>Adam Aton of Scientific American</u> quantifies: Each degree celsius increase of warming will decrease...food yields by 7.4 percent.

Sean Gilbert for Boston University concludes: An additional 100 million people will live in poverty due to climate change by 2030...[only]... investments in low-carbon infrastructure...can bring... long-term poverty reduction.

Thus, we negate.

All in all,

Neg weighhing

- 1. Scope- global climate change vs us emissions
- 2. Prerec- best way to have sustainable energy/reliance/least emissions is green technology because it is more sustainable :D

Preserving the American transition to green technology will curb climate change far more effec

While nuclear power is coined as 'emission-free', the process to operate the plants themselves it is not. Mark Jacobson at Stanford University explains in 2019: There is no such thing as a close-to-zero emission nuclear power plant [because] plants emit due to the continuous mining and refining of uranium needed for the plant. Emissions from new nuclear are...178 g-CO2/kWh, not close to 0. This contrasts with [green technologies], which reduce [air pollution] by about 2.2 g-CO2e/kWh.

In comparison, the American transition

BY https://cen.acs.org/articles/94/i46/Renewables-rise-globally-coal-sees.html

This can also be attributed to political actions. <u>Lyderson 15 of</u> Energy News finds that the nuclear energy lobbyists have been targeting solar and wind energy companies at the federal, state, and local levels. Indeed, she concludes that these lobbyists have lobbied against tax incentives for wind and solar energy.

Six months ago, a report by the International Energy Agency claimed that not sustaining and even expanding nuclear power would make climate solutions "drastically harder and more costly.

The bedrock economic principle of "opportunity cost" means you can't spend the same money on two different things at the same time. Each purchase foregoes others. Buying nuclear power displaces buying some mixture of fossil-fueled generation, renewable generation, and efficient use. Nuclear owners strive to beat coal and gas while their allies often disparage or suppress renewables. Yet most US nuclear plants are uneconomic just to run, so many are closing. To keep milking those old assets instead, their powerful owners seek and often get multi-billion-dollar bailouts from malleable state legislatures for about a tenth of the nuclear fleet so far, postponing the economic reckoning by shooting the market messenger.

Gtech

increasinghttps://thebulletin.org/2017/10/a-dozen-reasons-for-the-economic _failure-of-nuclear-power/

Wind, solar, and hydropower sources—which now exceed nuclear power in generating capacity in the United States, and during one recent month even produced more total electricity—have also been the recipient of subsidies. The difference is, their aggregate subsidies are an order of magnitude smaller, and renewables (particularly on-shore wind and utility-scale photovoltaics) have delivered on their promise to lower costs, with costs that are one-third of nuclear power on a levelized basis and still falling, as I reported in my recent book (see Figure 5.1 for current costs and Figure 5.3 for future costs). They succeed, where nuclear fails, not simply because of the complexity of nuclear technology, but also because of their inherent economic characteristics. Smaller in scale and more decentralized, they encourage entry by multiple suppliers, allow demonstration before massive deployment, and foster continuous competition to lower costs and improve quality.

Shwartz '19- If california went 100% green then total energy consumption would decrease by 36.6%

https://www.fastcompany.com/3027734/visualizing-what-would-happen-if-e very-state-transitioned-to-renewable-energy

(Info graphic, check for other states also) \setminus