Arjun and I negate: "Resolved: The United States should increase its use of nuclear energy for commercial energy production."

<u>Our Sole Contention is Powering the Way to Prosperity</u>

Mann of NPR 16 finds, nuclear power generation is stagnating in the status quo as the profitability of nuclear plants continue to decrease due to the long construction periods of plants, leading to closures. Consequently, ***Hulac 20*** finds, US nuclear power production is projected to decrease 75 percent in the next decade. Because of this, renewable energy sources like wind and solar are on the rise, as ***Miller of Morningstar Analysis 19*** finds, renewable energy is projected to grow 8 percent annually in the next decade.

Unfortunately, increasing nuclear production reduces the use of renewable energy in two ways.

The first is government support.

Currently, ***Murphy of Environmental Progress 18*** writes, renewables receive 94 times more subsidies than nuclear energy. Unfortunately, affirming reverses this trend as ***Plumer of Vox 17*** explains, in order to revive the nuclear sector and increase production, there will need to be massive amounts of government investment, most commonly in the form of subsidies. ***Siegel of the Washington Examiner 19*** finds, the best way for the government to increase nuclear production sustainably from the levels it is at right now is to completely end subsidies for wind and solar, in order to compete in the competitive energy market. However, diverting subsidies away from renewable energy would be disastrous as ***The Institute for Energy Research*** contextualizes, renewables cannot sustainably provide energy without subsidies as they provide an important financial incentive for producers to stay in the market.

The second is private investment.

Deign of Greentech Media 18 reports, future nuclear production will only be achieved with new innovations called small modular reactors or SMRs, which are portable but produce less energy than normal nuclear power plants. ***Thompson of NB Media 19*** finds, because of the high risk but high reward

of these reactors, they will invite heavy private investment. **Unfortunately, because of the huge financial costs entailed with new nuclear production,** ***House of Commerce 18*** finds, investors cannot afford to both fund the high cost of these SMRs and renewable energy. For this reason, ***Thompson*** finds, new nuclear production accommodated by SMRs will divert private investment away from renewables, threatening the transition to a renewable future.

For these two reasons, ***Trevors of NCBI 10*** concludes, increasing nuclear energy production will divert public and private investment away from renewables, destroying its potential to protect the climate. ***Abbott of the University of Adelaide 11*** quantifies, a one dollar increase in investment for nuclear energy production takes away one dollar from renewable technologies like solar energy. Indeed, ***Judson of NIRS 14*** contextualizes, when nuclear production was increased in the 1990s, growth in renewables was decimated for a full decade.

Thus, affirming takes away the best path towards reducing emissions in two ways.

The first is time.

Because of the costs and time associated with building nuclear power plants, ***Jacobson of Stanford 19*** finds, nuclear plants take 17 years longer to build than renewable energy between planning and operation, providing an solution far in the future to the urgent issue of carbon emissions. Unfortunately, without any reduction in emissions, ***The UGC Research Program*** estimates, every year not spent combating climate change will lead to tens of thousands of deaths annually.

The second is emissions.

Jacobson finds, nuclear power plants make the issue of emissions far worse, as they produce carbon dioxide through the mining of uranium and heat released in production. ***Jacobson*** quantifies, nuclear energy causes 37 times more emissions than renewable energy. In fact, ***Jacobson*** finds, when China diverted investment away from wind and solar power and into nuclear production, emissions rose by 1.3 percent, causing 82,000 lives to be lost in a single year.

For these two reasons, because renewables can be deployed much faster and do not produce any emissions in their production, ***Morris of Energy Transition 19*** contextualizes, if countries stick with renewables and phase out nuclear power, emissions can be reduced by two percent annually. In fact, ***Secaira of Business Insider 17*** reports, wind and solar energy saved almost 13,000 lives between 2007 and 2015.

Thus, we negate.