RSC THE REPUBLICAN STUDY COMMITTEE

RSC Backgrounder: A Greedy New Steal

LIBERTY, OPPORTUNITY, SECURITY

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On February 7, 2019, Rep. Alexandria Ocasio-Cortez introduced <u>H. Res. 109</u>, Recognizing the duty of the Federal Government to create a Green New Deal. The resolution, supported by over <u>100</u> House and Senate Democrats, addresses Democrat concerns over climate change. The resolution would express the sense of the House that it is the federal government's duty to create a "Green New Deal," and outlines several goals and projects that it says must be addressed within ten years. The resolution is non-binding, and Rep. Ocasio-Cortez has <u>stated</u> that additional legislation would be needed to create a comprehensive plan. Furthermore, while many of the goals and projects are directly related to climate change, green energy and carbon emissions, the resolution is far-reaching, seeking to upend nearly every aspect of our economy and society.

Aggressive Environmental Mandates

A leading goal of the resolution is to meet 100 percent of power demand through zero-emission energy sources. Currently, only <u>17 percent</u> of the United States' energy generation comes from renewable sources. This includes energy derived from <u>hydropower</u> and <u>geothermal</u>, which may not be included under the resolution because of potential impacts on the environment and <u>public health</u>. Wind and solar currently make up just over <u>8 percent</u> of electricity generation. There are a number of dire concerns related to increasing current renewable energy generation more than tenfold.



Data source: U.S. Energy Information Administration

Technological and Capital Considerations

The Green New Deal makes the grandiose commitment to develop a power grid that is supported by 100 percent renewable electricity generation, is reliable and energy-efficient. This, however, is "likely technologically <u>impossible</u>." The electric power grid is made up of generators that work together in order to provide more electricity in areas that have a higher demand with inadequate energy generation and to offload excess electricity from areas that have a lower demand and excess energy generation. Currently, the availability of our electricity is reliable because our primary sources of energy, fossil fuels, can quickly compensate for imbalances in the system. One of the problems with renewable energy is being able to provide energy on demand. While fossil fuels can be ramped up or down based on the demand for electricity, most renewables are dependent on environmental conditions beyond our control. We cannot force the sun to shine or the wind to blow. Wind turbines also cannot run when it is <u>too cold</u>, if <u>ice</u> builds up, when it is <u>too windy</u> or not <u>windy enough</u>.

Case Study: Solar and Wind Provide a Small, Unreliable Fraction of Germany's Electricity





Renewable energy plants are, by nature, less efficient since they cannot produce energy on demand. <u>Capacity factor</u> measures how much energy is actually generated by a plant compared to how much energy could have been generated if the plant ran at full, continuous operation. While all energy plants need to be shut down periodically for maintenance and refueling, and based on market conditions, renewable energy plants must also rely on environmental conditions that determine



whether or not energy is produced. The capacity factor for nuclear plants far outstrips the capacity factor for any other energy source at <u>92 percent</u>. Coal and natural gas are also relatively efficient, with capacity factors above 50 percent. Wind and solar, however, are the most inefficient energy sources we have, with solar only producing a quarter of its potential and wind only a third.



Source: U.S. Energy Information Administration

Because of its reliance on environmental conditions, the more renewable energy we add to our grid, the less reliable our electricity becomes. On a cloudy day, our daily lives could become reliant upon backup power sources, and Americans could face the threat of widespread blackouts, a problem that is non-existent in our country today. Blackouts can also occur when too much energy is produced and cannot be siphoned off to another source, which overloads the grid. <u>Germany</u> and <u>South Australia</u> have faced major problems with blackouts as a result of adding renewables to their electric grids.

If the U.S. were to transition to 100 percent renewable energy, a storage system would foreseeably be necessary to provide energy during periods of low electricity generation. However, storage costs increase sharply if more than <u>80 percent</u> of electricity generation is met through renewable energy sources.

The cost of increasing storage capacity is so high that in some cases adding additional wind turbines and solar panels is <u>less expensive</u> than increasing storage capacity. A storage system that provides just 12 hours of storage throughout the U.S. would cost over <u>\$2.5 trillion</u>. This \$2.5 trillion is just the beginning of what it would cost to implement 100 percent renewable energy.

American taxpayers currently subsidize energy production by the billions. Wind and solar, which would likely be the primary sources of energy if the Green New Deal was implemented because of the controversies with hydroelectric and geothermal energy production, are the most expensive forms of energy per Megawatt hour we subsidize.



	2016 Net Generation (billion kWh)	Subsidies and Support (millions of dollars)	Subsidies and Support per Unit of Production (dollars/mWh)
Coal	1208	1262	\$ 1.04
Nuclear	799	365	\$ 0.46
Hydroelectric	268	38	\$ 0.14
Geothermal	63	86	\$ 1.37
Wind	220	1266	\$ 5.75
Solar	51	2231	\$ 43.75

Price of Subsidizing U.S. Energy Production

Source: U.S. Energy Information Administration

The costs of increasing wind and solar generation from 8 percent to 100 percent would require massive amounts of capital investment. According to a preliminary cost assessment of the Green New Deal, the cost of capital investment to implement 100 percent renewable energy could be <u>over \$5.7 trillion</u>, and, assuming a 20-year recovery, the U.S. would end up investing almost as much in clean energy as the rest of the world <u>combined</u>.¹ To put this amount of money into context, with \$5.7 trillion, the United States could single-handedly end world hunger and undernutrition for at least <u>20 years</u>, provide <u>clean water</u> to the entire world, and end <u>malaria</u> at the same time.

In addition, one early estimate approximates annual operations, maintenance and capital-recovery costs to be <u>\$387 billion</u>. In comparison, generation costs under the current system were <u>\$230 billion</u> in 2017. But construction costs won't end after ten years, when construction of all the solar panels and wind turbines should be completed under the Green New Deal. In 2012, a study found that wind turbines only produce electricity effectively for <u>12-15 years</u>. The <u>study</u>, which analyzed almost 3,000 turbines, found that twice as much electricity is generated in the first year after construction than is generated 15 years after construction. The same study found the bigger the wind farms, the more efficiency declines. This means that soon after we finish building all the wind turbines needed to get to 100 percent renewable electricity generation, assuming it can be completed in ten years, we'll have to begin the process of replacing all the turbines. And after that cycle of replacement is completed, we'll have to start replacing the solar panels, which have a lifespan of about 25 years. The lifespan of a coal or nuclear plant, in comparison, is <u>40 years</u>, though nuclear plants may be able to operate for <u>twice as long</u> as they were originally designed.

The enormous amount of capital needed just to construct and maintain a 100 percent renewable generation system would require rate payers to absorb an enormous increase in their energy bills. A 100 percent renewable electricity system could increase the cost of the average monthly electric bill from \$112 (2017) to an average of between \$160 and \$431. On an annual basis, this would add between \$576 and \$3,832 in electricity costs for the average household. These increases will be regressive, since those from low-income households spend almost three times as much of their income on electricity costs compared with higher-income households.² Higher energy bills would encourage families to sacrifice other necessities to cope with increased energy costs. According to a survey of low-income households, in order to cope with higher energy bills 24 percent of families went without food for at least one day, 37 percent went without medical or dental care, 34 percent

¹ Phillip Rossetti, American Action Forum, "What it Costs to go 100 Percent Renewable," January 25, 2019, ("[\$5.7 trillion is] a ballpark figure that is consistent with what more thorough research on the topic has produced.") https://www.americanactionforum.org/research/what-it-costs-go-100-percent-renewable/#ixzz5j6iH6l7j² Those who makes less than \$30,000 spend 23% of their income on <u>energy costs</u>, compared with those who make at least \$50,000, who only spend 7% of their income on energy costs.



did not fill a prescription or took less than a full dose, and 23 percent kept their home at a temperature that was unhealthy or unsafe as a result of unaffordable energy bills, with almost 20 percent becoming sick because their home was too cold. In the United Kingdom, almost 47,000 people died between 2011-2015 as a result of cold homes, with energy poverty being a key <u>contributor</u>. In <u>2013</u>, England and Wales recorded over 4 times as many deaths from cold homes than road and rail accidents, almost four times more than drug misuse, about as many from alcohol and 30 times more than fires.

An increase in the price of energy will not only increase electricity bills. An increase in the price of energy will increase the price of every single good and service we purchase. When the cost of energy increases, it increases the price of producing goods, transporting those goods to stores or to the customer, and maintaining a location to sell those goods. In fact, almost <u>half</u> of our energy consumption comes from indirect energy use. Analyses studying the impact of a carbon tax, which would similarly increase the price of energy, <u>found</u> that over a million jobs would be lost, along with \$1 trillion in GDP.

A transition to 100 percent renewable energy would not only impact American citizens. In 2013, President Obama implemented the <u>Power Africa</u> initiative to provide electricity in low-income countries. Currently, <u>46 percent</u> of the Megawatts that have reached financial close through the Power Africa initiative were based on natural gas, diesel or heavy fuel oil, with the remaining 54 percent coming from renewable sources. If the U.S. transitions to 100 percent renewable energy, Power Africa is also likely to provide energy through 100 percent renewable sources. A study by the Center for Global Development found that \$10 billion <u>invested</u> in renewable energy through the Power Africa Initiative would provide electricity to 20 million people in poor African nations. However, a \$10 billion investment in natural gas could provide electricity to 90 million people. Providing cheap and abundant energy is one of the best ways to help people out of poverty, since <u>energy poverty</u> impacts health, happiness and income. By refusing to invest in other forms of energy, including natural gas, we are complicit in keeping an additional 70 million people in energy poverty, and thus, economic poverty.

Environmental Considerations

A transition to 100 percent renewable electricity generation does not just have capital and technological challenges. Producing all of our energy through wind and solar power will also impact the environment.

Firstly, renewable energy generation is much more land intensive than energy generation using fossil fuels. Solar energy production requires <u>as much land</u> per Megawatt of electricity as nuclear, natural gas and coal combined, and wind requires almost twice as much as nuclear, natural gas and coal combined.

In order to transition 100 percent of our electricity generation to wind and solar, we would need <u>115</u> <u>million acres</u> of land, over <u>5 percent</u> of all land in the United States. This would certainly require eminent domain, directly conflicting with the Green New Deal which looks to ensure "that eminent domain is not abused," and will also likely conflict with the Green New Deal's goal of obtaining consent for decisions that impact indigenous peoples and their traditional territories and land rights.

The large amount of land needed for renewable energy means that electricity cannot be generated in areas that use the most amount of electricity— cities. Wind farms and solar farms must be placed in the rural areas that are most conducive to generating wind and solar energy, and the energy that is generated must be transported into more populated areas. As a result, rural residents would be more impacted by the land requirements than urban residents. Some of the impacts of renewable electricity generation include <u>adverse health effects</u> for those living near wind turbines; specifically decreased quality of life, sleep disturbance, headaches, anxiety, depression and cognitive dysfunction.



Those living near wind turbines also have to endure <u>noise and shadow flicker</u> caused by the turbines. It is unfair to ask rural residents to endure the brunt of inconveniences required for renewable energy generation in order to provide electricity to those in urban areas. And residents of these rural areas are beginning to resist in <u>San Bernardino</u>, California, and <u>Erie</u>, <u>Orleans and Niagara</u>, New York. San Bernardino has even <u>banned</u> energy projects that would serve mostly out-of-town utility customers.



Data source: Strata

Land is not the only resource that is needed for renewable energy generation. Wind turbines require 800 metric tons of concrete to construct their foundation. The production of cement, which is required for concrete, makes up 8 percent of carbon dioxide emissions <u>worldwide</u>, which makes it the <u>third largest</u> emitter of carbon dioxide in the world, behind the entire countries of China and the U.S. The construction of so many additional wind turbines is likely to increase carbon emissions from cement production, which is contrary to the goals of the Green New Deal.

Another of the Green New Deal's goals is "restoring and protecting threatened, endangered and fragile ecosystems." However, in attempting to achieve the goal of transitioning to 100 percent renewable energy within ten years, proponents are likely to negatively impact the ecosystems that they seek to protect.

Renewable energy sources are not without environmental impacts. Solar farms have been known to <u>melt</u> the wings of thousands of <u>birds</u>, generate <u>300 times</u> more toxic waste than nuclear energy and increase nitrogen trifluoride emissions, a greenhouse gas that is 17,000 times <u>stronger</u> than carbon dioxide. Solar farms also require up to 5,000 times more <u>land</u> than nuclear plants and <u>10-15 times</u>



more concrete, cement, steel and glass, putting increased demand on the <u>minerals</u> needed to create solar farms.

Solar panels and wind turbines can negatively impact protected wildlife, including the <u>golden eagle</u>, the <u>bald eagle</u> and the endangered <u>desert tortoise</u>. One solar farm in California kills around <u>6,000</u> <u>birds</u> every year, though federal wildlife authorities believe the actual number of bird deaths for this solar farm is higher. Prior to leaving office, President Barrack Obama issued a <u>rule</u> allowing wind farms to kill up to 4,200 bald eagles and kill golden eagles in violation of the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act, without penalty.

In 2012, it was <u>estimated</u> that 573,000 birds and 888,000 bats, were killed nationwide by wind turbines. This number is likely to have increased, since the cumulative capacity of wind turbines has increased by over <u>37,000 megawatts</u> since 2012. While collisions with blades make up a portion of the bat deaths, many bats die as a result of pressure changes around the turbines, which causes their lungs to <u>burst</u>. The bats that are killed by turbines include endangered species, like the <u>Indiana Bat</u> and the <u>Hawaiian Hoary Bat</u>, Hawai'i's only native land mammal. In Hawai'i, three wind farms retain federal and state permits that allow them to kill a certain number of Hawaiian Hoary Bats over a 20- or 25-year period. In only six years, the three farms have already surpassed their 20 and 25-year take limit and are asking to more than <u>quintuple</u> the number of bats they are allowed to kill under their current permit. Environmental attorney, <u>Max Phillips</u>, sums up the hypocrisy of progressives that continue to advocate for policies that could end up doing more harm than good: "we want green energy, but are we willing to do that at the extinction of our [Hawai'i's] only native land mammal?"

The U.S. government has an extensive process for permitting large-scale energy projects that includes an environmental impact statement (EIS) to assess the project's plan to prevent or mitigate harmful environmental effects. However, transitioning to 100 percent renewable energy in 10 years would require the U.S. government to forgo the usual permitting process and accompanying EISs that aim to protect ecosystems and mitigate any potential adverse effects resulting from the construction of new power plants. Between 2010 and 2017, the <u>average time</u> to complete an EIS was four and a half years. This timeframe, however, does not include time spent in litigation that is likely to arise from these projects and which often takes <u>years</u> to make it through the court system, even if the suit is filed early in the six year statute of limitations that begins after the environmental review is completed. This is likely to impact renewable energy projects. One study found that in 2010, <u>over 70</u> wind farm projects were stalled by moratoriums, environmental challenges and lawsuits. While many conservatives believe the permitting process for large projects must be reformed, the need to rush through or cut environmental regulatory corners in order to achieve the energy goals of the Green New Deal highlights the resolution's inherent hypocrisy and incoherence.

Moving Towards Net-Zero Emissions

The Green New Deal states that it is the federal government's responsibility to reach net-zero greenhouse gas emissions within ten years. However, even if the U.S. was able to meet 100 percent of power demand through renewable energy sources despite the previously outlined challenges, the reduction in the atmospheric concentration of carbon dioxide would be <u>.9 percent</u> in 2050, as calculated with the same model used by the United Nation's Intergovernmental Panel on Climate Change.² Electricity generation accounts for less than 30 percent of greenhouse gas <u>emissions</u> in the U.S. In order to transition to net-zero emissions, the U.S. would have to do more than transition to 100 percent renewable electricity.



² The Model for the Assessment of Greenhouse Gas Induced Climate Change.

Realizing that 72 percent of greenhouse gas emissions come from sources other than electricity generation, the <u>FAQ document</u> states that one of the goals of the Green New Deal is to "replace every combustion-engine vehicle" and build electric vehicle charging stations everywhere.³ This would entail <u>replacing</u> the majority of almost 270 million cars, almost 12 million boats, over 130,000 transit vehicles and almost 27,000 trains, necessitating "practical solutions [that] have not even been conceived, let alone researched, developed and implemented."⁴

A plan to replace combustion-engine vehicles would typically include over <u>200,000 airplanes</u>, however, instead of replacing airplanes, the Green New Deal has a new solution for long-distance travel: build out <u>high-speed rail</u> "at a scale where air travel stops becoming necessary."⁶

It is nearly impossible to build out high-speed rail at the scale needed to replace air travel. In fact, rail, as a metropolitan public transit system, can be challenging at best. Rail systems work in metropolitan areas that are monocentric—meaning most of the jobs and entertainment options are located in one central area. The New York City subway is a good example. However, American cities are becoming increasingly polycentric, with multiple areas that host job and entertainment options, making rail systems even more difficult and expensive. Even if building rail out to this level was feasible, it could cost between \$1.1 and \$2.5 trillion. Additionally, it would require building 19,453 miles of track, which would not be possible within ten years, and would require eminent domain and the bypassing of the usual permitting process, as outlined above.

Adding hundreds of millions of electric powered vehicles would also put a huge amount of additional stress on the electric grid, since each vehicle owner will need to be able to charge their electric car. A recent study found charging 60,000 electric vehicles (EVs) in Texas at the same time, which amounts to only .25 percent of vehicle registrations, equates to the current <u>peak demand</u> of the grid. Any additional energy use by consumers or additional EVs that are added would threaten the grid. To compensate for the additional energy demand, utility companies are likely to add rate structures to better control electricity use. These <u>pricing structures</u> are likely to include demand charges, dynamic charging and time-of-use rates. This will further increase the already <u>premium price</u> of owning an electric car, making car ownership a luxury that only the rich can afford.

Those who live in rural areas will see a disproportionate amount of the negative effects from the Green New Deal, specifically in transportation. Requiring rural residents to replace their cars with electric vehicles would mean they need the ability to charge their vehicle in areas that do not currently have transmission lines. Constructing transmission lines for so many rural residents would be very expensive, though the alternative is forcing rural residents to purchase stand-alone solar panels or windmills and then bear the associated maintenance costs accompanying these purchases. In addition, making it feasible for those who live in rural areas to drive long distances is improbable, since charging stations would be needed at least every 58 miles, which is the range of the all-electric vehicle with the shortest range. This would take an incomprehensible amount of infrastructure development in places that do not currently have access to electricity. Those in rural areas would not be able take advantage of rail systems that are unlikely to have stations near them.

In an attempt to "build resiliency against climate change-related disasters," the Green New Deal would aim to upgrade all existing buildings to achieve maximum energy and water efficiency within 10 years. This is impossible, considering there are almost 100 million residential <u>buildings</u>, around 6 million commercial buildings, around 140,000 <u>schools</u>, over 360,000 federal government <u>buildings</u>,

⁴ Byers, D. and Eule, S. (2019). *The Dramatic Unreality of the Green New Deal*. [online] Global Energy Institute. Available at: https://www.globalenergyinstitute.org/dramatic-unreality-green-new-deal [Accessed 19 Mar. 2019]. ⁶ Included in the <u>FAQ document</u> that has since been removed from Rep. Alexandria Ocasio-Cortez's website.



³ Included in the <u>FAQ document</u> that has since been removed from Rep. Alexandria Ocasio-Cortez's website.

around 385,000 <u>churches</u>, and countless industrial, recreational and other buildings. This will also require replacing almost 69 million natural gas, kerosene and propane <u>furnaces</u> in these homes.

Requiring this many structures to be retrofitted, or replaced in the case of structures that would be cheaper to replace than upgrade, would put a strain on construction materials and labor, sending home prices skyrocketing and completely eliminating affordable housing. This will also further increase the production of concrete, which already accounts for <u>8 percent</u> of carbon dioxide emissions worldwide.

In addition to the cost and magnitude of these projects, this would also require the violation of a number of federal and state historic preservation <u>laws</u> that currently prohibit many of the upgrades that would be required to achieve this goal.

Fossil fuels are not only used in the production of energy. Some of the products made from fossil fuels <u>include</u>: clothing, vitamin capsules, shampoo, speakers, heart valves, dentures, refrigerators, golf balls, toothbrushes and toothpaste, candles, nail polish, deodorant, aspirin, artificial limbs, contact lenses, make-up, soap, everything made from plastic and thousands of other products. While the Green New Deal does not explicitly call for the removal of fossil fuels from all products, this may be the next <u>target</u> once fossil fuels are removed from energy production.

Impact on Temperature

In 2007, Germany made several pledges to reduce emissions and increase renewable energy production. Among these were to <u>reduce</u> greenhouse gas emissions by 40 percent and increase renewable energy production to 40 percent; modest changes compared to the Green New Deal's goals. Although Germany spent over \$580 billion (more than the annual U.S. non-defense discretionary budget) in an effort to meet these goals, Germany is still likely to miss their climate goals to reduce emissions by 40 percent, increase the share of renewables in energy consumption to 20 percent, reduce primary energy consumption by 20 percent, reduce emissions for transportation and buildings, and reduce resource productivity. Meanwhile, certain <u>air pollutants</u> in Germany are above legal limits and they continue to struggle with <u>water pollution</u>.

Germans have paid a high price in attempting, and failing, to meet their climate and energy goals. Germans pay over two and a half times more for <u>electricity</u> than Americans and have <u>doubled</u> their electricity costs since 2000. In addition, Germany has some of the highest retail electricity in the European Union. Furthermore, Germany still generates <u>less than half</u> of the amount of clean energy as France, which generates <u>most</u> of its electricity from nuclear energy.

Germany has made huge investments in clean energy in an effort to reach its goals and was unable to do so. Even if the U.S. were to adopt the ambitious, at best, goals of Green New Deal, there is no way of knowing if it is possible to ever reach them, even without the ten-year time frame. However, let's assume that it is possible for the U.S. to do what no first-world country has done before and completely eliminate carbon emissions.

If the U.S. were able to completely eliminate carbon emissions, the resulting temperature reduction would only be <u>.137 degrees Celsius</u> by the year 2100, as calculated with the same model used by the United Nation's Intergovernmental Panel on Climate Change.⁵ Removing methane and nitrous oxide would reduce the global temperature by an <u>additional</u> .03 degrees C and .02 degrees C, respectively. The elimination of U.S. carbon emissions would only reduce worldwide carbon emissions by <u>13</u> <u>percent</u>. The increase in emissions from the rest of the world during the same timeframe would completely offset the U.S.'s <u>reduction</u>.



⁵ The Model for the Assessment of Greenhouse Gas Induced Climate Change. <u>http://www.cgd.ucar.edu/cas/wigley/magicc/</u>.

The U.S. does not need a sweeping government mandate like the Green New Deal to reduce carbon emissions or to have a significant and positive impact on the environment. In 2017, the U.S. led the world in <u>reducing carbon emissions</u>, and since 1990, the U.S. has made <u>significant progress</u> towards the reduction of air pollutants despite increased energy use.



Source: American Enterprise Institute



Source: Environmental Protection Agency



In fact, despite Germany's attempts to increase its amount of renewable energy production, the U.S. has recorded a greater reduction in carbon emissions over the last ten years.



Source: Forbes

Social Reconstruction and Government Expansion Under the Green New Deal

While the Green New Deal claims to be about climate change, it goes far beyond addressing climate and energy policy. As progressive as the climate change and green energy proposals of the Green New Deal are, they only scratch the surface of the progressive policies its supporters hope to codify.

In addition to transitioning to 100 percent renewable energy and moving to net-zero carbon emissions, the Green New Deal also aims for the U.S. federal government to: (1) provide higher education to all Americans; (2) create high-quality union jobs that pay prevailing wages while strengthening the right to unionize; (3) guarantee every American a job with a family-sustaining wage, family and medical leave, paid vacation and retirement security; (4) provide all Americans high-quality healthcare, affordable and adequate housing, economic security, clean air and water, health and affordable food, and access to nature; (5) and perhaps most radically, <u>guarantee</u> economic security for anyone who is "unwilling" to work.⁶ Overall, implementing the Green New Deal would

⁶ Included in the <u>FAQ document</u> that has since been removed from Rep. Alexandria Ocasio-Cortez's website. ⁹ Ohanian, L. (2019). *The Green New Deal is a pipe dream, not a serious policy proposal*. [online] The Hill. Available at: https://thehill.com/opinion/energy-environment/432105-the-green-new-deal-is-a-pipe-dream-not-a-seriouspolicy-proposal [Accessed 19 Mar. 2019].



require an unprecedented expansion of government. Through the Green New Deal, "over 50 percent of the economy would pass through the hands of government."⁹

The Green New Deal aims to sink taxpayer money into the research and development of new energy technologies and industries. Aside from blatantly promising to transfer taxpayer dollars from the pockets of U.S. citizens to the bank accounts of the energy industry, this proposal would also retard overall innovation by manipulating the decision-making processes of the private sector. As Veronique de Rugy, PhD, of the Mercatus Center stated, "Far from suggesting that alternative energies aren't welcome or desirable, [...] it's time for policymakers to recognize that allowing the marketplace to determine winners and losers is preferable to a politicized, top down approach that has produced more black eyes than benefits." Indeed, federal forays into the energy sector have been marked by consistent failure. Among the worst include the <u>Solyndra</u> boondoggle, other projects under the <u>1705</u> <u>energy loan program</u> and the Advanced Technology Vehicles Manufacturing (<u>ATVM</u>) program.

Federal subsidies tend to distort economic activity and depress innovation, because, for one, the government does not have the same incentives to ensure that funds are used on their best and highest use. Subsidies disadvantage those companies that do not receive them even if they are more efficient and reduce investment for worthier activities. Moreover, contrary to a goal possessed by progressives and conservatives alike, the mere existence of government subsidies creates a proliferation of lobbying activity among special interests.

Cost

The cost of implementing the Green New Deal is extremely difficult to estimate. While cost estimates exist for many of the individual Green New Deal's individual initiatives, the resolution does not lay out any sort of coherent implementing framework for its aspirations. Furthermore, the interactions between the many grandiose proposals are extraordinarily complex with ramifications that are daunting to predict and quantify. For example, while there are cost estimates for upgrading the electricity grid to integrate 100 percent renewables, most do not take into account the integration of hundreds of millions of new electric vehicles into the grid. Still, it is instructive to digest the possible fiscal consequences as laid out by groups examining the Green New Deal.

For instance, when you combine the projected costs of the Green New Deal's various initiatives, according to one analysis, the total ten-year cost of implementation may reach as high as \$93 trillion.

Goal	Estimated Cost Over Ten Years	Estimated Ten-Year Cost Per Household
Low-carbon Electricity Grid	\$5.4 trillion	\$39,000
Net Zero Emissions Transportation System	\$1.3 trillion to \$2.7 trillion	\$9,000 to \$20,000
Guaranteed Jobs	\$6.8 trillion to \$44.6 trillion	\$49,000 to \$322,000
Universal Health Care	\$36 trillion	\$260,000
Guaranteed Green Housing	\$1.6 trillion to \$4.2 trillion	\$4,000 to \$12,000
Food Security	\$1.5 billion	\$10
Total	\$51 trillion to \$93 trillion	\$361,010 to \$653,010



Another more recent estimate, from the American Enterprise Institute released as part of an 83-page report found a similar result, estimating the annual cost of implementation at about \$9 trillion, bringing the ten-year cost to about \$90 trillion.

Goal	Estimated Annual Cost	Estimated Cost Over Ten Years ⁷
Electricity Mandate Costs	\$491 billion	\$4.9 trillion
Social Mandates -Single-Payer Healthcare -Employment Guarantee -College-for-all and family and medical leave -High-Speed	Almost \$4 trillion -\$3.2 trillion -\$680 billion -\$107 billion -\$200 billion	Almost \$40 trillion -\$32 trillion -\$6.8 trillion -\$1.07 trillion -\$2 trillion
Rail Excess Burden of Tax System	\$4.5 trillion	\$45 trillion
Total	Almost \$9 trillion	Almost \$90 trillion

Source: <u>American Enterprise Institute</u>

Many of the figures from these analyses are conservative estimates. Furthermore, neither cost estimate takes into account all of the proposals that the Green New Deal would include. Missing from both are estimates for providing a transition to electric vehicles, paid vacation, retirement security, and access to clean air, water and 'nature' on the government's dime.

While proponents of the Green New Deal have not discussed how much implementation would cost, the <u>FAQ document</u> admitted that the plan would require an investment so great that the aggregate value of all of the resources of every billionaire and company is insufficient.¹¹ Rep. Ocasio-Cortez's own plan to tax those making over \$10 million at 70 percent would only raise between <u>\$51.4 to \$291</u> <u>billion</u> over the next 10 years, woefully short of the estimated \$93 trillion potentially needed to implement an incomplete version of the Green New Deal.

In short, the Green New Deal calls for an impossible investment that would result in only a <u>13 percent</u> reduction in worldwide emissions and would affect temperature by less than <u>.2 degrees Celsius</u> by 2100. While many of the proposals included in the Green New Deal have no connection to climate change, they do reveal the true nature of the Green New Deal: a thinly veiled attempt to implement the policies that would usher in a new socialist society in America.

Note: This RSC backgrounder is for informational purposes only and should not be taken as statements of support or opposition from the Republican Study Committee.

⁷ The American Enterprise Institute report contains annual cost estimates only. The ten-year estimates are for demonstration purposes only to provide a better comparison with the estimates of the American Action Forum. ¹¹ Included in the <u>FAQ document</u> that has since been removed from Rep. Alexandria Ocasio-Cortez's website.

