

The Economics and Political Constraints of a Green Jobs Guarantee

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Abstract

Fossil fuel consumption has exacerbated the effects of climate change, and despite these imminent dangers to the environment, the US economy still remains immensely dependent on fossil fuels and other pollutants as a main source for energy because of the high production cost and lack of labor among the renewable energy sector. To solve this economic problem, the US Federal Government has drafted the Green New Deal, which includes a Federal Jobs Guarantee (FJG) mostly directed towards the renewable energy industry. This job guarantee would seek to give temporary employment support while also generating labor towards renewable energy production.

In this paper, I will first outline the economic obstacles that currently prevent renewable energy from being America's main energy source before introducing what the design and implementation of a FJG program would look like. I will then address the political constraints, rooted in campaign contributions and lobbying from fossil fuel corporations, which prevents an FJG from being politically feasible. Lastly, to address the political constraints, I will propose an updated version of the current FJG program that might be more politically viable.

Keywords: Federal Jobs Guarantee; Renewable Energy; Green New Deal; Market Failure; Employment; Optimal Policy; Climate Change; Fossil Fuel Corporations.

The Economics and Political Constraints of a Green Jobs Guarantee

From raging wildfires to flooded cities, the impact of global warming poses a threat to national and global security. Its implications have the capacity to destroy national infrastructures, cause political unrest, and devastate global economies, a reality so daunting that the Red Cross has proclaimed global warming a bigger threat than the COVID-19 pandemic (Goering & Rodriguez, 2020). Already, the cost and financial burden of climate change and extreme weather patterns have been felt by the US government, which last year spent a record \$210 billion on extreme weather and natural disaster related expenditures (Newburger, 2021). The human cost of a planet that is 1.5-2° warmer could be even more disastrous, and according to a recent IPCC model is estimated to surpass one hundred million, twice the death toll of World War II and three times the death toll of the Great Leap Forward (Wallace-Wells, 2020).

Carbon dioxide emissions, largely from the burning of fossil fuels, make up the majority of greenhouse gases and are the main perpetrators behind climate change. As a result, without a sustained multilateral promise from countries, reaching zero emissions and reversing the effects of climate change cannot be achieved. France and Germany have already proposed policies like the carbon tax in the hopes of switching to a more sustainable economy. Total economic decarbonization, however, can only happen if countries drastically shift their energy consumption from fossil fuels to renewable energy sectors, which is especially challenging in the US where there is a high economic and consumer dependence on fossil fuels.

In a recent study, U.S. Energy Information Administration (EIA 2020) reported that 80% of all US domestic energy consumption comes from fossil fuel. The current economic problem is the high cost and low production quantity of renewable energy, especially in wind and solar energy sectors. The US Federal Government proposes tackling the issue of cost and renewable energy through the Green New Deal (GND), which contains a Federal Jobs Guarantee (FJG) program. Considering the high reliance on fossil fuels, current proponents of a Green Jobs Guarantee

and GND have said that implementation should start as soon as possible and last about a decade. This ambitious time frame is instrumental to ensure that the US reaches President Joe Biden's goal of net zero emissions by 2050. A recent special report from the International Energy Agency (IEA 2021) found that quick action needs to be taken to limit emissions and prevent warming from reaching 2 degrees Celsius to prevent irreversible effects of climate change. The question I will answer in this paper is has the FJG under the Green New Deal been effective in helping to decrease renewable energy prices and increase production of renewable energy to a level that allows for a shift to a decarbonized economy? I argue that a Federal Jobs Guarantee benefits both unemployment and the environment. The issue, however, is the political feasibility of the current FJG and GND as a result of strong opposition from conservative politicians, many of whom have been backed by influential fossil fuel corporations and lobbyists. One possible alternative is to eliminate all other tenants of the GND and only implement a green FJG program, which would cut down on costs and other parts of the GND that GOP politicians might view as too radical.

Economic Problem

Many progressive climate activists agree that greenhouse gases constitute a negative externality to our society and economy, and although renewable energy is the best alternative to fossil fuels, big barriers to reaching a renewable energy economy remain. One barrier is production of renewable energy, which, despite recent progress, remains lower than that of fossil fuels. In the US, renewable energy constitutes 20% of all energy generated (IEA 2021). The International Renewable Energy Agency (IRENA 2018) suggests that in order for a shift away from emissions, 60% of energy consumption should come from renewable energy, which is significantly higher than current levels. The main reason for the low production level is because of high costs, which means that a transition to a renewable energy economy would require unpopular large national investments. In a study by the Institute of Energy Research (IER 2019), the cost of creating a 100% renewable economy by 2030 would be approximately \$4.5 trillion. Although this estimation might seem daunting, a recent Rewired America report calculated

that a green economy could save America about \$321 bn in energy costs (Milman 2020). Nevertheless, many hesitate to invest in renewable energy as they fear the uncertain proposition of spending vast amounts of money that could not produce profit for more than ten years. Therefore, it is important to continue to analyze reasons behind the high costs of renewable energy and explore ways to cut down to increase production efficiency.

One reason why renewable energy is expensive is because of its unpredictable supply. Unlike with fossil fuel, day-to-day weather can determine the production quantity of renewable energy production lines. Especially in wind and solar sectors, production quantity is dependent on natural constraints as it is impossible to produce wind and solar energy without wind or sunshine. According to experts in geology Souvik Sen and Sourav Ganguly in the *Renewable and Sustainable Energy Reviews*, “Unlike fossil fuels RE is site specific. As for example, wind turbine output depends on the wind speed and other related properties and a wind-based RE system makes sense only in those particularly favorable regions” (Sen and Ganguly, 2017, pp. 6).

With this level of natural dependency, storage systems, which vary based on the type of renewable energy, act as a safety net so that renewable energy plants can still produce enough energy and meet market demands regardless of weather patterns. Building storage systems, however, are not only important in wind and solar sectors. Hydropower, which constitutes the majority of the renewable sector, uses mass storage systems called Pumped-Storage Hydropower (PSH) to store the water necessary to generate electricity; therefore, in times of high demand, water is released from the storage system to generate electricity, ensuring that energy can be produced despite natural barriers (National Hydropower Association 2019). But renewable energy storage systems are comparably scarcer than that of fossil fuels, which poses an obstacle to increasing production of renewable energy. This scarcity is largely due to the high costs of renewable energy storage systems, which deters companies from investing in storage and renewable energy altogether. In fact, a recent Vox article found that renewable energy storage would have to be an average of \$20 per kilowatt hour, which is a 90% decrease from today’s cost, to sustain a total renewable economy (Roberts

2019). Therefore, mass investment and intervention are necessary to lower prices and build more storage systems across the country to sustain a level of renewable energy production that can transition the US economy away from fossil fuels.

Another problem that prevents renewable energy production is a lack of labor. The labor problem among clean energy sectors stems from how new the sector inherently is. Workers are vital to ramp up production, and the development of innovation and technology that could possibly increase the efficiency of the energy produced, cuts down on the cost. When laying out barriers to a renewable energy economy, Sen and Ganguly wrote, “Requirement of skilled human resources with specific training in RE is another issue here. Skills to operate and maintain RE hardware [are] very important to make a RE project running successfully,” (Sen and Ganguly, 2017, pp. 6). The lack of adequate labor prevents technological innovation essential to helping to create valuable growth in clean energy. The FJG gives such labor support while also giving workers the opportunity to develop skills and training during their temporary employment. In her paper, ‘The Job Guarantee: Design, Jobs, and Implementation,’ Pavlina R. Tcherneva, Associate Professor of Economics at Bard College and a Research Scholar at the Levy Economics Institute, said that under a FJG training and education services would be offered “at the macro level” and serve to temporarily shift people out of unemployment (Tcherneva, 2018, pp. 15). And especially in newer renewable energy sectors, where skills and technology are not as highly developed, governmental intervention like the Production Tax Credit (PTC) and Investment Tax Credit (ITC) are crucial to incentivizing investment in renewable technology, research, and labor. Without governmental assistance, corporations and workers have no incentive to invest in something as unpredictable and new as green technology. Therefore, a policy proposal that boosts jobs in the renewable energy sector is essential to lowering the cost and increasing the production of renewable energy.

To address the issues of climate change, Congresswoman Alexandria Ocasio-Cortez of New York and Massachusetts Senator Ed Markey have proposed the Green New Deal (GND), which, once implemented, would work to help the US reach a zero-emission economy within a decade. Some of

the key pieces of the GND include “upgrading” national infrastructure in an energy efficient manner, working with farmers to limit agriculturally generated pollution, investing in reducing emissions among the transportation system (expanding electric car manufacturing and high speed rails), and guaranteeing a federal job that provides a “living wage” for every American working in renewable energy (Kurtzleben 2019). This jobs plan, also known as a Federal Jobs Guarantee program (FJG), seeks to address two key problems: unemployment and climate change. In her paper, Tcherneva frames what a jobs guarantee program would look like:

The Job Guarantee (JG) is a public option for jobs. It is a permanent, federally funded, and locally administered program that supplies voluntary employment opportunities on demand for all who are ready and willing to work at a living wage. While it is first and foremost a jobs program, it has the potential to be transformative by advancing the public purpose and improving working conditions, people’s everyday lives, and the economy as a whole (Tcherneva, 2018, pp. 2).

Through a unique incorporation of an FJG concentrated in the renewable energy sector, production capacity of renewable energy would increase, and prices of renewable energy would theoretically drop, allowing for an expansion of renewable energy development and competition (Tcherneva, 2018, pp. 4-7). The financial incentive of a guaranteed job could also garner the attention of high-skilled workers like engineers from the private sector or alternative energy sectors that could be crucial to advancing research and development of production methods. Any developments or advancements in renewable energy garnered from a federal investment in green infrastructure will not only help the public sector but will also spill over to benefit the productivity of private renewable energy companies (Fogarty 2015). Additionally, the FJG also acts as a safety net for individuals most susceptible to unemployment during the transition to a green economy; this includes fossil fuel workers and engineers whose skills coincide largely with those of renewable energy workers (Tcherneva 2020). Moreover, for individuals with no prior knowledge or skills, this program acts as a job training and transition system that allows many to gain adequate skills to adapt and find employment in a green economy.

In recent years, climate change has gotten exponentially worse and every year since 2015 has

been the warmest on record (World Meteorological Organization 2021). So, if comprehensive actions are not taken, the effects of climate change will continue to get exponentially worse, and the financial burden on taxpayers will only increase. Therefore, to minimize costs and the worsening effects of global warming, a GND must be passed as soon as possible. Although many progressives have applauded this aggressive approach and timeline, the GND and FJG has come under fire by many conservatives and moderates like Senators Joe Manchin from West Virginia and Kyrsten Sinema from Arizona, who have publicly declared their opposition to the current proposed version of the GND and FJG out of fear of inflation and private sector crowd out. Especially in the wake of a record \$1.9 trillion spending bill from the American Rescue Plan and the compromised \$1 trillion for Biden’s hard-fought infrastructure bill, many fiscal conservatives hesitate to spend the estimated \$543 billion to maintain a FJG (Darity and Hamilton 2017). Despite these costs, proponents argue that the benefits the bill offers to our economy compensates the cost of the program and adds an additional \$2 trillion to our economy within the next ten years (Friedman 2019). Therefore, the question for climate activists is whether the mass federal investment necessary to maintain a FJG program under a Green New Deal is effective enough to garner a decrease in renewable energy prices and create a shift to a decarbonized economy.

Political Constraints and Optimal Policy Recommendations

Although many conservative politicians have explained their opposition to the GND as a rejection of big government, it is also important to analyze the role that fossil fuel corporations and lobbyists have on influencing climate policy and lawmakers. According to a 2020 article from The Guardian, oil and gas companies alone spent over \$84 billion for congressional campaigns (overwhelmingly Republican) during the 2018 election cycle (Holden 2020). Most notably, Senator Jim Inhofe, from Oklahoma, who tried to bring a snowball onto the Congressional floor to disprove the effects of climate change, has received over \$1.5 million from the fossil fuel industry alone during his career (Geary 2019). As seen with Senator Inhofe, these campaign contributions have real-world impacts in

shifting congressional decision making and changing perceptions on climate change. According to a study from the Proceedings of the National Academy of Sciences (PNAS), lawmakers were estimated to receive an additional \$1,700 in campaign contributions from fossil fuel corporations every time, during an election cycle, their League of Conservation Voters (a non-profit environmental activist group) score decreased by 10%; the study concludes that, “The more a given member of Congress votes against environmental policies, the more contributions they receive from oil and gas companies supporting their reelection” (Goldberg et al. 2020). And because green infrastructure and GND directly oppose the interests of fossil fuel corporations, it is very likely that fossil fuel corporations will funnel big money into candidates and lobbyists to promote anti-environmentalism and kill the bill.

Fossil fuel companies also use campaign contributions to leverage politicians to give them large sums of aid in the form of tax exemptions and subsidies, allowing fossil fuel corporations to get away with almost no costs when polluting the environment. In fact, the fossil fuel sector receives a total of \$20 billion of subsidies from the federal government each year, which is far more than the subsidies provided in any other energy industry in the US (Urpelainen and George 2021). Fossil fuel subsidies not only suck up the federal budget but also incentivize the production of emissions, making it harder to transition towards alternative energy methods. With these subsidies, fossil fuel corporations generate fuel and pollute the Earth with greenhouse gases with taxpayer dollars at an extremely low cost (Irfan 2019). But even though there is a direct correlation between fossil fuel subsidization and the worsening of global warming, the need for campaign contributions from fossil fuel companies deters many politicians from actually doing anything to end these subsidies.

But fossil fuel lobbying and campaign contributions do not only impact Republican politicians. Although 85% of the lawmakers who receive campaign contributions from fossil fuel industries are Republicans, in the wake of the 2020 election, where the Democratic nominee Joe Biden announced his position against a ban on fracking, fossil fuel corporations like ExxonMobil started dramatically increasing their support and contributions to Democratic candidates and campaigns. During the

2020 presidential election, ExxonMobil increased its political contribution towards Democrats to 41%, a significant increase compared to 32.6% during the 2016 presidential election (Hampton 2020). This shift shows that the influence of fossil fuel corporations is prevalent, not only among Republican candidates but also among many moderate Democrats from coal mining or rural states like West Virginia. It is not only the GOP but also the Democratic Party that have prevented the ability for a comprehensive climate policy like the GND from passing. The “quid pro quo” between fossil fuel corporations and politicians causes gridlock and our inability to combat climate change.

When responding to discussions about Biden’s climate policy, Senator John Barrasso of Wyoming commented, “Proposals that impose a cost on carbon will hurt American families,” and Senator Tim Scott from South Carolina said bluntly that “Our best future won’t come from Washington schemes or socialist dreams” (Gross 2021). Scott’s argument has some merit. Thermal storage and hydrogen storage, one of the most commonly used types of storage for renewable energy, is far more expensive than fossil fuel storage, yet many Americans seem to be in favor of climate policies that seek to lower prices of renewable energy. In fact, a staggering 83% of Americans favor tax breaks for utilities that develop renewable energy, and 62% of Americans favor taxing companies for emitting greenhouse gasses, showing a disconnect between the American people and Washington (Gross 2021). Despite these poll numbers, politicians tend to vote in ways that guarantee reelection, which means avoiding tax increases and policies that require big budgeting.

So, although an FJG would address many of the issues like labor shortages and high production cost plaguing the renewable energy sector, it is unlikely to pass the U.S. Senate with many moderate Democrats like Senator Manchin already voicing their objection, especially considering the possibility that Republicans will take control of the Senate after the 2022 midterm election. Therefore, a plan that increases development in renewable energy technology and labor while minimizing cost to a level that would generate bipartisan support is key to allowing for a practical solution to the current issues of renewable energy. An optimal solution to the current version of the GND is to cut the rest of the GND and purely implement the FJG portion of the bill, which will cause much

less controversy as it excludes most of the social aspects of the plan like healthcare expansion that many Republican politicians have deemed “socialist.” Through this budget cut, cost will also be minimized to \$500 billion per year, which is far cheaper than the multi trillion-dollar bill originally proposed. Although \$500 billion seems like a lot at first glance, it is not abnormal for federal budgeting bills to exceed multi billion or trillion dollars in funding (as seen with the American Rescue Plan and infrastructure bill); although there still might be some hesitancy from ultra conservative politicians to invest, a \$500 billion bill under America’s current political limit is not totally out of the norm.

These proposed budget cuts would create a more targeted solution to the labor shortages in the renewable energy market. In fact, an FJG was designed with the specific intent to increase labor among the renewable energy sector, so it is not necessary to add additional programs to solve a problem that only requires a simple solution that an FJG can solve. Moreover, an FJG offers economic benefits to local economies (it is estimated that a FJG would employ over 10.7 million people) and would raise the quality of living for millions of Americans. Therefore, fewer people would qualify or need assistance from current governmental welfare policies, and budgeting for these programs can be cut substantially to fund the FJG. These cuts should not cause much outrage from Republican politicians as many of these social programs are not programs that Republicans have special interest in. Therefore, an updated GND, which only contains a green jobs guarantee, would largely minimize the burden on taxpayers, make Republican opposition on the grounds of cost less warranted, and increase the likelihood of some level of bipartisan agreement necessary to overcome the political gridlock that has prevented climate bills from being implemented in the past.

To name a few positive externalities, a politically feasible FJG would offer better public health because with an increased income, people would be more capable of investing in better healthcare. With the optimal version of the policy, there would also be no new CO₂ emission within 10 years of enactment. As a result, air pollution related diseases like heart attack and stroke would decrease significantly. Therefore, this bill would create a healthier and larger working population that would

contribute to the economy and would prevent a large number of premature deaths caused by the factors related to environmental pollution.

Another positive externality of the FJG is that it would create new jobs for the working class and also provide easier ways of transportation. For example, building greener infrastructure such as zero emissions transportation systems around the country would allow for easier movement and accessibility. An increased accessibility through an upgraded infrastructure system allows for more employment opportunities, which helps to break down socioeconomic inequalities facing marginalized groups as a result of redlining or other forms of exclusion.

Nevertheless, there are still many concerns surrounding an FJG. One of the greatest concerns is that an FJG would crowd out the private renewable energy industry. Proponents of the FJG like Tcherneva have dismissed those claims, saying that any potential harm to the economy from private sector crowd out would be offset by the increased employment that an FJG would bring, and the development of new technologies and production methods that would eventually spill over to benefit the private renewable energy sector. For example, workers who set up Electric Vehicle (EV) charging stations across the country under a FJG program benefit private companies like Tesla and GM that seek to expand their outreach of EV. It is also important to recognize that an FJG is a temporary 10-year plan, meaning that the purpose of the plan is simply to phase out America’s current fossil fuel dependent economy. It is not meant to act as a permanent federal replacement of the current energy system or to replace the private renewable energy sector, but rather it seeks to support the private market by building a framework for sustainable infrastructure and energy production systems that would eventually be regulated by the private sector at the end of the proposed 10 years.

Furthermore, another concern highlighted by sceptics of the bill is that the probability of the GND happening is low insofar as fossil fuel corporations continue to funnel large amounts of money to manipulate politicians and ordinary people. So, when discussing climate policy, it is important to incorporate legislative action that will address the enormous power fossil fuel industries have in preventing necessary and bipartisan efforts to tackle climate change. By

getting rid of all other tenets of the GND and solely implementing an FJG, the problem of political feasibility becomes less pronounced. Although this version of the GND will continue to stimulate renewable energy sector growth, it does not directly crash or impact the fossil fuel sectors. Moreover, this version of the bill gives corporations like ExxonMobil sufficient time to phase out and develop new technologies necessary to adapt to a green economy, and it is more likely that fossil fuel industries will support this bill rather than more ambitious forms of climate legislation that directly disincentivize the purchasing and selling of fossil fuel like the original GND or a carbon tax.

Through hurricanes and raging wildfires, Mother Earth has warned humanity that we cannot afford the cost of negligence in the face of such an existential threat, and especially in an age where our economy depends predominantly on fossil fuels, it is important for drastic action to be initiated to reverse the course of an impending global disaster. Therefore, an FJG would be an optimal solution to phasing away from a fossil fuel-based economy while ensuring economic stability and steady employment rates during the transition process.

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