Center for American Progress

Renewable Energy Tax Credits

The Case for Refundability

By Bidisha Bhattacharyya May 28, 2020

The COVID-19 pandemic threatens to wipe out much of the progress that has been made in renewable energy growth in the United States during the past decade. A recent jobs report found that nearly 600,000 workers from across renewables, energy efficiency, clean vehicles, and grid and storage have lost their jobs since March.[1] These losses are taking a toll on American workers across all 50 states and Washington, D.C., and present a major setback in a sector that is vital not only to the economy but also to addressing the climate crisis.

Estimates from the Solar Energy Industries Association predict the industry could lose half its workforce by the end of this year,[2] and Bloomberg New Energy Finance cut its 2020 global solar installation forecast from 121–152 gigawatts (GW) to 108–143 GW.[3] The wind industry estimates that 35,000 jobs will be lost and that the pandemic will put 25 GW of wind projects at risk—enough to power more than 2.7 billion LED light bulbs[4] and representing $35 billion in investment.[5] Additionally, the energy storage industry is already seeing delays in more than 60 percent of its projects as a result of the pandemic.[6]

This is an alarming reversal for a sector of the U.S. economy that has been an engine of growth and job creation during the past decade. U.S. renewable energy generation doubled over the past 10 years, with the majority of the growth driven by wind and solar.[7] The solar industry employed almost 250,000 people in the United States in 2019[8] and was on track to add 50,000 more workers and invest $25 billion into the U.S. economy in 2020.[9] The wind industry employed close to 115,000 Americans in 2019, a 3 percent increase from 2018.[10] Wind more than tripled its capacity during the past decade and added in excess of 9 GW of new wind capacity last year, surpassing hydroelectric power as the largest source of renewable electricity generation in the United States.[11]

In the face of the public health and economic crises caused by the coronavirus outbreak, coupled with the urgency of tackling the climate crisis, Congress must take immediate action to mitigate job losses for hundreds of thousands of American workers in renewable energy industries and continue to fuel the deployment of

clean, renewable energy sources. In a recent report, the Center for American Progress laid out its support for the extension of tax credits for clean energy technologies, which also includes expanding tax credits for energy storage, electric vehicles, and energy efficiency.[12]

As the federal government continues to consider the relief for and recovery from the current economic crisis, one specific piece of policy that Congress will have to grapple with is whether and how to make the clean energy tax credits refundable. This issue brief makes the case for refundability, explores lessons learned from the past, and describes how to move forward.

The current landscape of federal renewable energy tax credits

Alongside state policy, federal tax incentives have been the primary policy driver for the growth of wind, solar, and other renewables during the past decade. These include the investment tax credit (ITC) for commercial and residential projects and the production tax credit (PTC). The ITC, which has been particularly instrumental in the growth of the solar industry, is claimed against the business tax liability of the company that develops, installs, and finances the project. Eligibility is determined by the "commence construction" date of the project and is claimed according to the "placed in service" date; commercial or utility-scale projects must begin project construction by the date of expiration of the credit and place it in service within four years.[13] The ITC was set at 30 percent for projects that commenced construction in 2019 and are placed in service by 2023, and goes down to 26 percent for projects commencing construction in 2020 that are placed in service by 2024; it goes down to 22 percent for projects that commence construction in 2021 and to 10 percent for commercial projects and 0 percent for residential projects that commence construction after 2021.

The PTC is a per-kilowatt-hour tax credit for the project owner over a 10-year period, with eligibility based on when the project commences construction and the 10-year timeline starting from the time the project is placed in service. To qualify, projects must begin construction by the end of 2020, after which the credit expires. Similar to the ITC, there is also a safe harbor provision for the PTC, which makes a project eligible for the credit if at least 5 percent of the project's capital costs have been incurred by the end of the deadline year or if physical work has begun on the project by that time. After the end of the deadline year, the project has four years to go into operation in order to claim the credit. This credit has particularly fueled the growth of the wind industry.

The important thing to note is that these credits are only effective if value can be derived from them by some entity, which is made much more difficult in the current economic downturn. Generally, there are three ways to take advantage

of these credits. First, if the project owner has enough tax liability, it can take full advantage of the tax credit in the year it is earned. Most project owners, however, do not have enough tax liability to do so. In these cases, the owner can either carry forward the unused portion of the credit or partner with tax equity investors—typically businesses that have enough tax liability to take advantage of the tax credits and other tax benefits such as accelerated depreciation. Because of the significant costs, tax equity investors have generally been large commercial and investment banks; in 2019, the top 10 tax equity investors included Bank of America, Wells Fargo, Credit Suisse, and JP Morgan.[14]

The latter two options have important downsides for the project owner. Carrying forward the unused portion of the credit to the future means losing value due to the time value of money. Partnering with a tax equity investor means sharing the value of the tax credit, as well as other tax benefits such as accelerated depreciation. There are also significant legal costs to structure a partnership with a tax equity investor in which the investor holds preferential access to the project's cash flows and tax credit and accelerated depreciation benefits. Finally, partnering with a tax equity investor depends on the availability of tax equity, which is contingent upon investors having enough corporate tax liability. The Tax Cuts and Jobs Act of 2017 reduced corporate tax liability by lowering the corporate tax rate from 35 percent to 21 percent.[15] With the COVID-19-fueled economic downturn, there are concerns within the renewable energy industry that the tax equity market is tightening even more due to cuts in corporate profits—and taxes owed—cutting off the ability of many renewable energy projects, particularly from smaller developers, to monetize the tax credits.

Recommendations

For all these reasons, Congress should enable renewable energy project owners—the intended beneficiaries of the credits—to avail the full value of the renewable energy tax credits without having to carry forward value or share value with a volatile tax equity market. This can be accomplished by making the credits refundable, meaning a project owner can receive the full value of the tax credit regardless of the amount of taxes they owe. Refundability can be done through a direct cash grant or as a refundable tax credit claimed on a tax return, so the entity can get a tax refund in the year they are filing for the unused portion of the credit, rather than having to carry the credit forward to a future year or find a tax equity partner.

Refundability and refundable tax credits for businesses are not new ideas. In the recent Coronavirus Aid, Relief, and Economic Security (CARES) Act, for example, Congress made the employee retention credit refundable and accelerated refundability of the corporate alternate minimum tax credit—a credit that was designed to prevent corporations from reducing their tax liability below a certain

level.[16] For renewable energy, in 2009, Congress enacted a temporary provision under Section 1603 of the American Recovery and Reinvestment Act whereby energy projects could receive a 30 percent cash grant from the Department of the Treasury instead of the PTC or ITC, effectively making the credits refundable. The program played a major role in unleashing and expediting investment in renewable energy projects around the country. According to a report by the National Renewable Energy Laboratory, the program created up to 75,000 direct and indirect jobs over its operational period of 2009 to 2011.[17] A later Treasury Department analysis found that the program allowed 110,000 projects across all 50 states and U.S. territories to monetize the tax credit, with total installed capacity of almost 35 GW and 91.5 terawatt-hours (TWh) of annual electricity generation. (One TWh equals 1 trillion watt-hours.) To put that in perspective, the state of Colorado used a total of 54 TWh of electricity in 2017.[18] The largest share of the program's generation capacity came from wind, followed by utility-scale solar. Residential solar projects made up the largest share of projects funded, when looking at absolute numbers.

Below are a few factors for Congress to consider in choosing a policy design:

- **Ease of administration:** Administering a refundable credit through the IRS utilizes a process that already exists. Companies already file tax returns every year, so this would require minimal behavioral change and would be processed on the federal government's end through the IRS, just like any other tax credit. Projects administered by nonprofit entities—such as many community solar projects—that typically don't file taxes would still be eligible for the credit through filing a tax return. This could open up the credit to be useful to solar projects for municipal, university, school, and hospital (MUSH) buildings.

- **Bureaucratic slowdown vs. oversight:** Administering a refundable credit instead of a cash grant through the U.S. Treasury Department would provide a level of protection from interference and bureaucracy, since the agency could hold up a cash grant application for whatever reason it sees fit. On the other hand, a cash grant provides a layer of oversight as the Treasury Department must review each application.

- **Level of credit:** Existing proposals in Congress, such as the Growing Renewable Energy and Efficiency Now (GREEN) Act, include a refundable tax credit, or "direct pay," at a fraction of the total value of the credit; the GREEN Act provision is 85 percent.[19] This "haircut" was put in to offset the estimated savings that the developer would see from avoiding structuring a tax equity partnership. However, these credits were never designed to automatically assume partnership and shared value with a tax equity investor. CAP supports a refundable credit at 100 percent of the existing credit levels, with no haircut.

Conclusion

As Congress considers action to stem the economic fallout from the COVID-19 crisis, it must make sure the renewable energy industry recovers and starts to resume the growth it has built for the past decade. Refundability is a key component of this strategy. This must be considered along with the long-term extension of the clean energy tax credits and their expansion to stand-alone energy storage, electric vehicles, and energy efficiency. Action is critical for the livelihoods of hundreds of thousands of American workers and for moving communities away from dirty, polluting sources of energy toward clean sources that will make all Americans and the American economy healthier and more resilient to the challenges that inevitably lie ahead.

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Endnotes

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