Before the House Select Committee on the Climate Crisis

United States House of Representatives

"Cleaner, Cheaper Energy: Climate Investments to Help Families and Businesses"

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Thank you, Chairwoman Castor, Ranking Member Graves, and distinguished members of the select committee, for inviting me to testify, and for your leadership in focusing on climate change. My name is Uday Varadarajan, and I am a Principal at RMI. Founded in 1982, RMI is an independent, nonpartisan nonprofit dedicated to transforming global energy use to create a clean, prosperous, and secure low-carbon future. I am grateful for the opportunity to speak with you today about RMI's work to assess the potential impacts of the climate investments in the Build Back Better Act on families and business across the country.

Introduction

This winter, more than half of American households will see their energy bills rise by 30% or more due to skyrocketing natural gas and oil costs. Rising energy costs pose a real threat to the health and financial well-being of families, especially the 4.8 million low-income households in the United States that missed an energy bill payment in 2020.

Rapidly strengthening energy assistance programs such as the Low Income Home Energy Assistance Program that aid households with a high energy burden (share of household income that goes to energy expenditures) is an important step to mitigate this threat and protect low-income families from energy shutoffs—at least in the near term.

However, the long-term solution to easing the burden of volatile energy costs on American families is to shift to cleaner, cheaper energy sources. Cleaner energy sources such as wind and solar complemented by battery storage offer energy price stability and could create durable energy savings for American households. The Build Back Better Act as passed by the House expands and improves financial incentives such as clean energy tax credits to accelerate the transition to clean energy resources, reducing energy bills and negative health impacts for families across the country.

[1] The views expressed in this document are my own in my capacity as a Principal at RMI and do not reflect the position of Stanford University.

Build Back Better

The Build Back Better Act will help the United States reduce its greenhouse gas emissions from the supply of electricity, save Americans billions of dollars on their electricity bills, and be less dependent on fossil fuels whose changing prices disproportionately affect low-income households. The most significant drivers of the overall cost and emissions reductions are three changes to the tax code. First, the Act extends and expands clean energy tax credits, allowing any carbon-free generation resource installed over the next ten years to benefit from a $25/megawatt-hour production tax credit. Next, the Act provides incentives to improve the reliability and resilience of the electric grid by introducing a 30% investment tax credit for battery storage and transmission. Finally, the Act allows both tax credits to be available via direct pay, which enables electric utilities of all kinds to fully utilize the tax credits without delay to maximize cost reductions for their customers. As a result, utilities can use the Build Back Better tax credits to reduce the carbon they emit by deploying a diverse set of clean energy technologies, while providing low-cost and reliable electricity service.

In addition, the Act features several provisions aimed at ensuring that energy cost relief and clean energy investment benefits low-income and fossil-dependent communities. For example, the Act provides funding for the USDA to help rural electric cooperatives reduce the debt burden and facilitate their reinvestment in clean energy—thereby helping bring down energy bills for the 92% of the U.S. counties with persistent poverty that are served by cooperatives. On the investment side, clean energy projects built in low-income or fossil-dependent communities are eligible for tax credit enhancements funded by the Act, ensuring that these communities are able to share in the wealth created by the transition to clean energy.

Build Back Better Reduces Emissions and Lowers Energy Bills

To assess the potential magnitude of the emissions reductions and savings made possible by the Act, RMI analyzed the impact of existing clean energy incentives as augmented Build Back Better provisions on the economics of the regulated, cooperative, and publicly owned utilities that own and operate nearly 80% of the remaining coal plants. Using publicly reported utility data sourced from RMI's Utility Transition Hub and federal agencies, RMI calculated the effective "crossover" points at which adding more generation from renewable energy can save utility customers money relative to current utility operations. We also accounted for increasing costs of capacity from battery storage to enhance system reliability as renewable energy usage increases. Finally, RMI incorporated Build Back Better Act policies like expanded clean energy tax credits, low-cost refinancing, and debt relief for electric cooperatives. We assumed that with these policies, clean energy replaces fossil generation once it becomes cost-effective to do so, with savings calculated from the difference in energy costs between renewables and fossil generation. RMI calculated emission reductions by measuring the Build Back Better Act against a baseline that begins with the reported emissions from power plants in 2019.

The numbers are clear—clean energy and the Build Back Better Act will save billions of dollars over the next decade and significantly reduce greenhouse gas emissions by enabling utilities to accelerate their transition to cleaner, cheaper resources:

- Utility customers will see **annual savings of $11 billion per year annually by 2030** from the transition to clean energy,[2] and
- The combined impact of the Act with existing policies and the declining costs of clean energy can make it economic for these **utilities to reduce their GHG emissions by 67% – or 658 Million Metric Tons of CO_2 annually – relative to their 2019 emissions by 2030**, lowering emissions by as much **as 4.2 Billion Metric Tons of CO_2 cumulatively from 2022-2030**.[3]

And with a grid powered by clean electricity, the electrification and decarbonization of other sectors will follow. In short, the savings and emissions reductions presented in this analysis refute the myth—one that has garnered a great deal of airtime during the federal budget debate—that transforming our electricity sector will be too expensive for customers.

10 Largest Utilities by 2019 Emissions	Total Annual Emissions in 2019 (MMT)	Emissions Reductions Percentage	Levelized Annual Savings by 2030 (2019 dollars)
PacifiCorp	40.38	34%	$55,828,365
Florida Power & Light Company	39.78	59%	$170,195,776
Alabama Power Company	29.41	25%	$190,866,271
Tennessee Valley Authority	28.73	69%	$271,330,338
DTE Electric Company	26.98	44%	$61,847,149
Georgia Power Company	25.61	60%	$272,834,323
Duke Energy Carolinas, LLC	25.32	78%	$150,800,122
Ameren Missouri	24.42	18%	$76,255,793
Virginia Electric And Power Company	22.02	37%	$537,524,393
Appalachian Power Company	18.77	91%	$248,762,467

Levelized annual savings and emissions reductions by 2030 with Build Back Better compared to 2019 for the 10 largest utilities by CO_2 emissions. Source: RMI Utility Transition Hub, FERC, EIA, NREL

[2] Levelized annual savings by 2030 for FERC-reporting utilities and extrapolated across the entire electricity sector with Build Back Better Act compared to 2019. Sources: RMI Utility Transition Hub, FERC, EIA, NREL

[3] Annual emissions reduced for FERC-reporting utilities with Build Back Better Act compared to 2019. Sources: RMI Utility Transition Hub, FERC, EIA, NREL

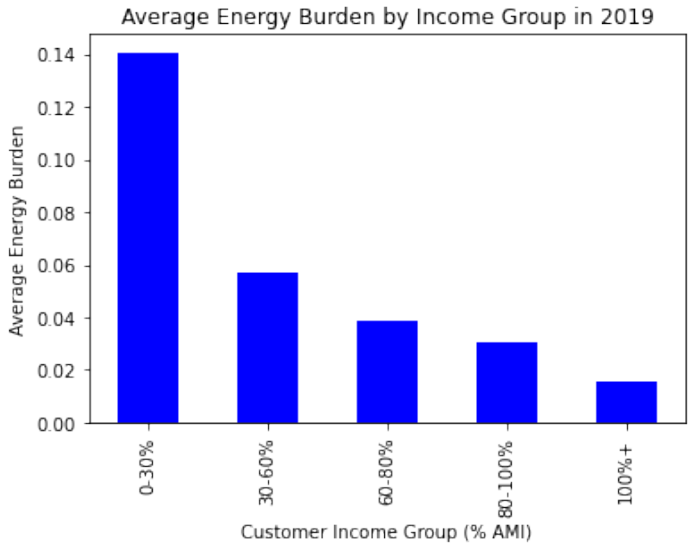
Build Back Better Empowers Households to Act to Reduce Their Energy Burden

One of the best ways to reduce both the higher energy burdens borne by low-income households and the disproportionate negative health impacts caused by burning fossil fuels inside homes is through funding comprehensive building upgrades—health and safety repairs, efficiency, and electrification at the same time. The Build Back Better Act includes incentives for such investments, particularly for low-income households, such as the High Efficiency Electric Home Rebates, two-thirds of which must be directed to low-income and tribal communities, and the Home Energy Performance-Based Whole-House Rebates and Training Grants. The full benefits of all of these programs must be made accessible to those most burdened by high energy and housing costs and suffering the impacts of substandard homes. As examples, the same changes to allow refundability and direct pay proposed for the renewable energy tax credits under section 25D should be extended to the residential efficiency tax credits under section 25C, and the new construction tax credits under section 45L should not reduce the basis for the Low-Income Housing Tax Credits when used together for highly efficient affordable housing projects. These provisions would improve both air quality and human health while improving living standards and saving households money.

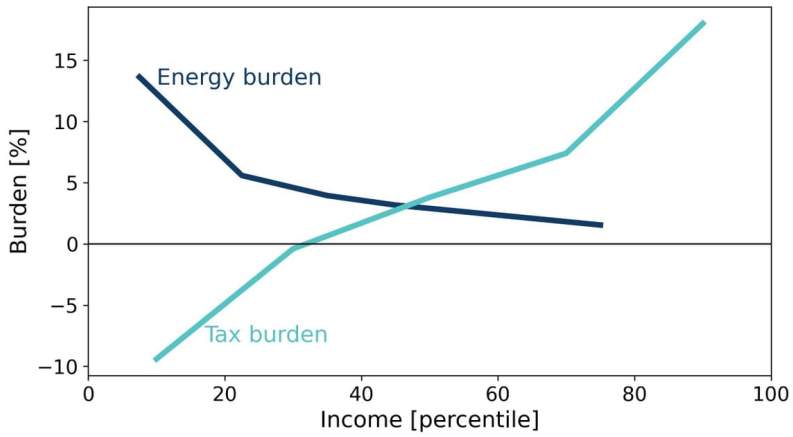
Build Back Better Protects Vulnerable Families

Replacing expensive fossil generation will not only reduce emissions and helps meet ambitious US climate commitments, but it will also save Americans money on their electricity bills. Such savings are important for all Americans facing rising fuel costs but are especially crucial for households that experience high energy burden.

In 2019, the country's 18.2 million lowest-income households spent an average of one out of every six dollars on energy costs, a rate nearly ten times that of households with above-average income. In fact, nearly half of all Americans pay more annually in energy bills than they do in federal income taxes. This issue is all too relevant today, as we've just seen the average energy burden from electricity expenditures has increased for the first time since 2014. Reducing this energy burden will provide these families substantial relief.

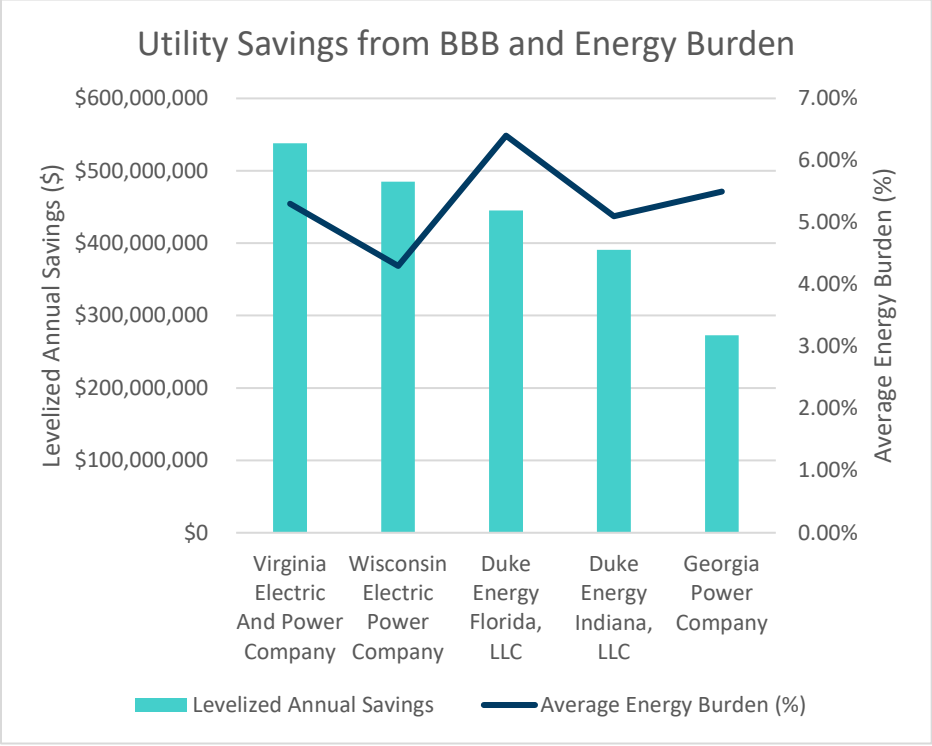


Average energy burden by customer income group in 2019. Source: RMI Utility Transition Hub



Energy burden vs. tax burden. (Tax burden here means the federal tax rate, excluding payroll taxes, divided by income.) Sources: RMI Utility Transition Hub, Tax and Policy Center.

In fact, the Act's savings are concentrated in households in regions with the highest burden. According to RMI's analysis, the five utilities with the highest potential annual savings from Build Back Better serve households with an average energy burden in the top quartile across all utilities.



Levelized Annual Cost Savings and Energy Burden for Utilities with the greatest potential annual savings from the shift to clean energy enabled by the Build Back Better Act. Source: RMI Utility Transition Hub and internal modeling

In short, increasingly expensive fossil fuels burden customers with high costs that can rise with little warning. The Build Back Better Act makes shifting to clean energy easier, reducing costs to consumers while providing help to the regions that are most in need.