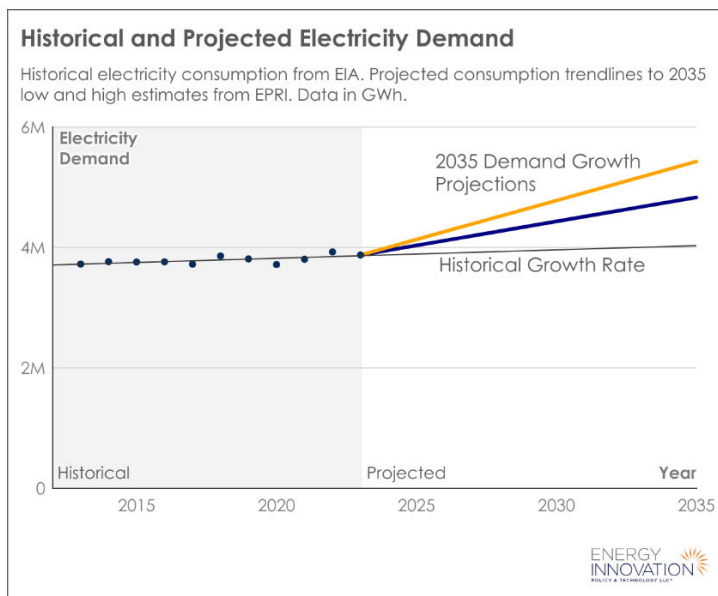


# FEDERAL CLEAN ENERGY TAX CREDITS MAKE ENERGY MORE AFFORDABLE – A META-ANALYSIS

This summary compares analyses from more than a dozen nonpartisan research groups, showing how repealing §45Y and §48E technology-neutral electricity tax credits would raise the nation's household energy bills around \$6 billion annually in the next five years and \$25 billion annually by 2040. In some states, households would shoulder over \$500 increases in their annual energy bills.



United States electricity demand is expected to grow, in part because data center demand could [more than double](#) by 2030. Utilities need to build power plants quickly to meet increased demand. This comes at a time when paying for electricity is an increasingly large burden for American families and businesses – costs [increased 22 percent](#) from 2018 to 2023, and could rise [another 7 percent](#) this year. To meet growing demand, utilities are largely [turning to renewables](#) as the fastest, most affordable way to bring more power online.

John Ketchum, CEO of Florida-headquartered NextEra Energy, one of the country's largest power utilities, [says](#) renewables and batteries are the "cheapest, fastest, and easiest way to meet surging power demand." "You can build

a wind project in 12 months, a storage facility in 15, and [a] solar project in 18 months," Ketchum [recently stated](#). Because of increasing demand, "if you take renewables and storage off the table, we're going to force electricity prices to the moon," he [warned](#).

Longstanding tax credits, extended by Congress in 2022, reduce the cost of meeting growing electricity demand and provide utilities with important incentives to diversify American energy. Two specific credits – the §45Y and §48E technology-neutral tax credits for clean electricity production – are protecting consumers by getting new renewables onto the grid quickly at reduced cost. Unfortunately, Congress is now considering repealing these credits – this would force higher prices on households and businesses already dealing with electricity prices increases.

More than [95 percent](#) of new power plants received support from these tax credits in 2024, driving down the cost of power for all Americans. The credits work by cutting the cost of investments in new wind, solar, battery, nuclear, and geothermal electricity projects, then utilities pass the savings on to households in the form of lower bills. Consumers need lower electricity costs now more than ever – [more than a third of Americans](#) cut back on or skip household necessities to pay utility bills.

These provisions continued a long history of bipartisan tax support to reduce the cost of new and established energy technologies that diversify American energy, invest in our communities and manufacturing, and cut pollution.

This research summary explains how clean energy tax credits reduce electricity bills for American households and businesses. We compile data and public statements from private companies, universities, national labs and government agencies to estimate how much these provisions will lower energy bills for consumers.

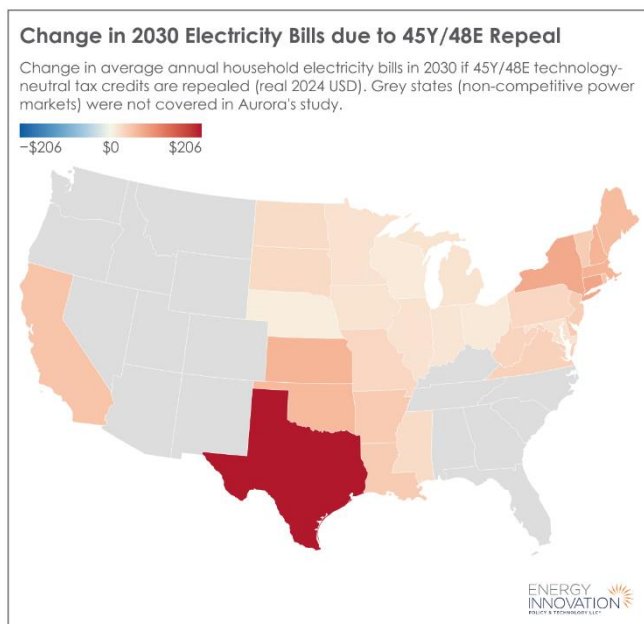
### Research Shows Repealing Energy Tax Credits Would Increase Energy Bills<sup>1</sup>

Federal clean energy tax credits have already lowered electricity prices. [NERA Economic Consulting](#) examined the impacts of the §45Y and §48E technology-neutral tax credits and found that U.S. residential electricity prices would be 6.7 percent higher in 2026 and 7.3 percent higher in 2029 in the absence of these tax credits (equivalent to adding a \$120 national tax on household electricity next year). Consumers in some states would be stung by particularly strong cost increases. Without the credits, households would see their 2026 electricity bills increase by 21 percent in Wyoming, 17 percent in Washington, D.C., 17 percent in New Mexico, 15 percent in Washington, and 14 percent in North Carolina.

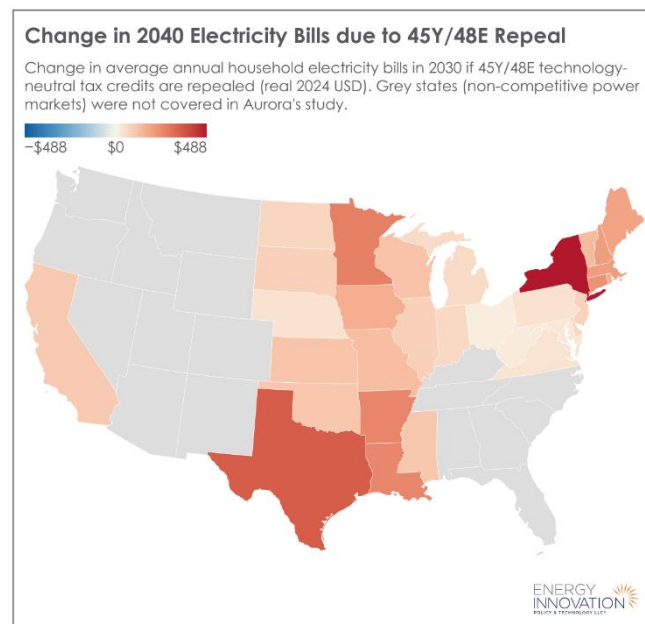
Other analyses show similar impacts from §45Y and §48E repeal. Energy Innovation – as reported in this paper – finds §45Y and §48E repeal would increase annual household energy bills by up to \$640 in Missouri, \$520 in Arkansas, \$480 in Kansas, \$460 in Iowa, \$460 in Rhode Island, and \$400 in Texas. [Aurora Energy Research](#) finds annual energy bill increases of up to \$490 in New York, \$420 in Texas, \$410 in Minnesota, \$260 in Arkansas, and \$260 in Louisiana. [Brattle](#) finds annual electricity bill increases of \$152 in North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, Iowa, and Missouri by 2035.

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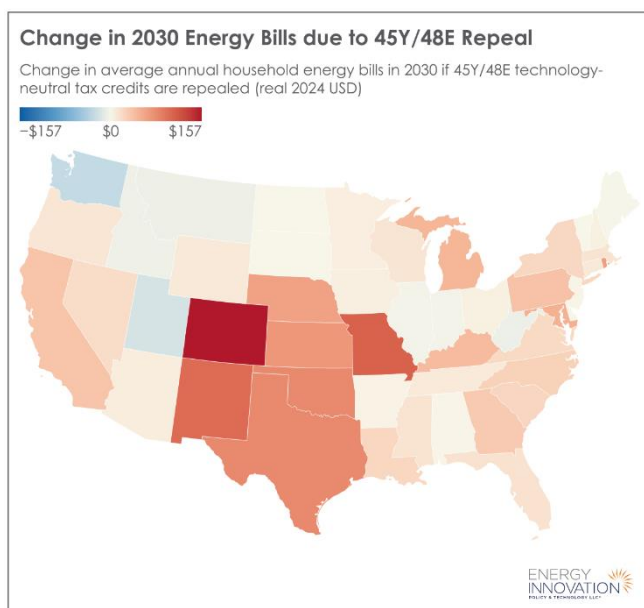
<sup>1</sup> All future costs in this section are converted to real 2024 USD for simpler comparison and to account for inflation



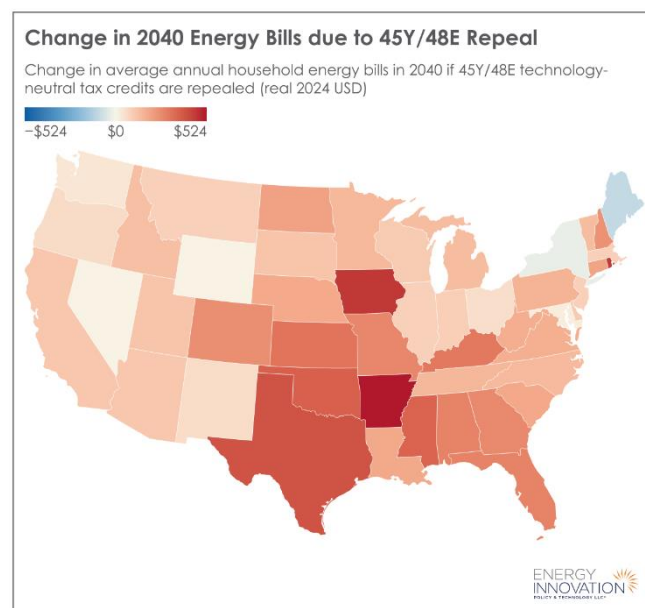
Map: Energy Innovation • Source: Aurora Energy Research



Map: Energy Innovation • Source: Aurora Energy Research



Map: Energy Innovation • Source: Energy Policy Simulator



Map: Energy Innovation • Source: Energy Policy Simulator

From a nationwide perspective, studies from four independent groups show that repealing these two credits would hurt consumers more and more over time. Analyses from [Aurora Energy Research](#), [Rhodium Group](#), [The Brattle Group](#), and Energy Innovation – as reported in this paper – show the national-average annual household energy bill would increase by \$40–\$60 in 2030, \$56–\$150 in 2035, and \$140–\$220 in 2040 if Congress repeals the technology-neutral tax credits this year. Averaged and summed nationwide, this means consumers will bear increased energy costs of approximately \$6.1 billion, \$12 billion, and \$25 billion annually in 2030, 2035, and 2040 respectively.

## Change in Household Energy Bills due to 45Y/48E Repeal

Average national increase in annual household energy bills if 45Y/48E technology-neutral tax credits were repealed (real 2024 USD). Black line represents the semi-decadal simple average of studies.

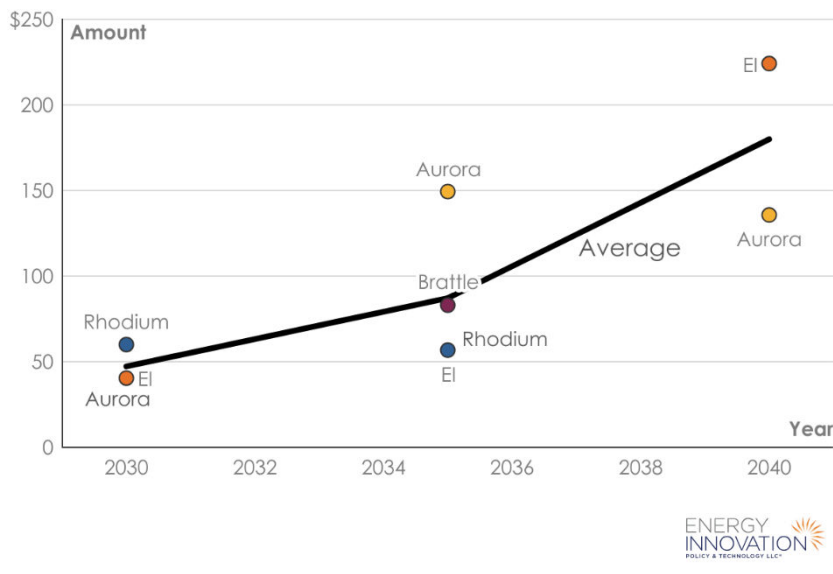


Chart: Energy Innovation

These studies confirm that initial analyses of federal clean energy tax credits' impacts on prices were accurate. Upon passage of the 2022 Inflation Reduction Act (IRA), which converted existing clean energy tax credits into tech-neutral tax credits, numerous groups studied the policies' effect on energy prices.

One study – a collaboration between eight universities, six think tanks, two national labs, and a federal agency – projected the impacts of the IRA using 11 distinct energy models. The researchers projected that household electricity bills would fall 4.5 percent (\$81 per year at current electricity prices) by 2030 and up to 8.6 percent (\$150 per year) after

2030 under the current tax regime. The largest decrease in electricity prices in this package of programs comes from the tech-neutral energy tax credits.

## Change in Retail Electricity Cost due to IRA

Percent change in retail electricity price due to IRA, averaged across models. Shaded area represents standard deviation.

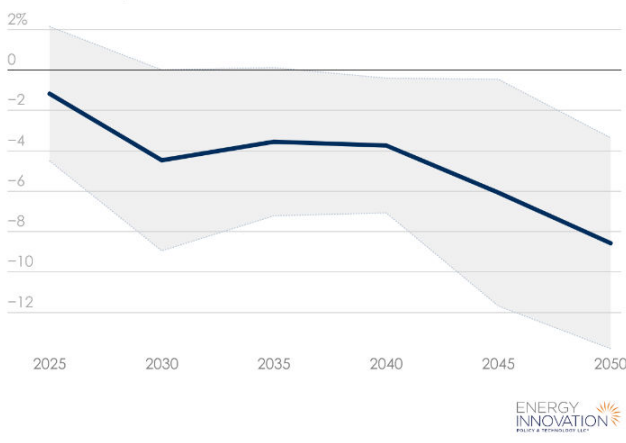


Chart: Energy Innovation • Source: Bistline et al.

## Change in Wholesale Electricity Cost due to IRA

Percent change in wholesale electricity price due to IRA, averaged across models. Shaded area represents standard deviation.

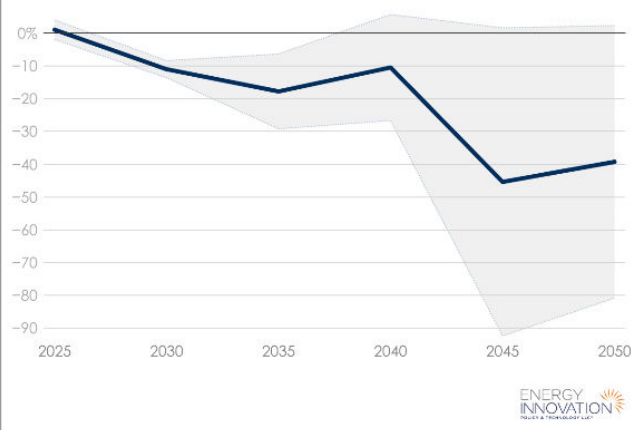


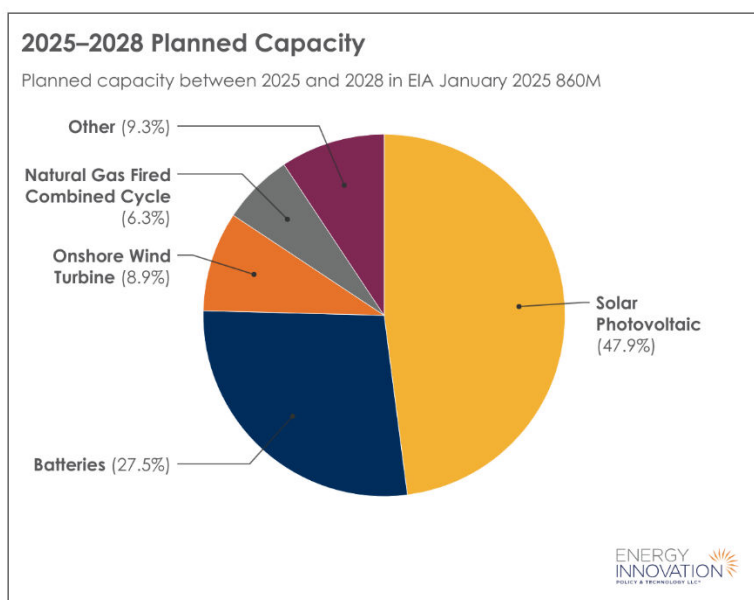
Chart: Energy Innovation • Source: Bistline et al.

Other studies showed similar results. The National Renewable Energy Lab [found that](#) the IRA could lower electricity prices by approximately 4 percent (\$72 per year). Resources for the Future [found that](#) the IRA would lower bills by 4 percent in 2025 (\$72 per year) and 6 percent in 2030 (\$108 per year). Once again, the biggest policy reducing electricity costs was the technology-neutral electricity tax credits.

## How Do Energy Tax Credits Lower Costs for Consumers?

In a 2025 Congressional hearing, Todd Brickhouse, CEO of North Dakota's Basin Electric Power Cooperative, told Congress that the "removal of [tech-neutral energy tax credits] will not allow utilities to plan for and avoid increased costs, and this will also immediately harm ratepayers." Like many other U.S. utilities', Basin's power mix is majority coal and gas – why would it be concerned about utilities losing federal tax support for wind, solar, nuclear, geothermal, and batteries, and how will this impact customers of utilities like it?

The tax credits reduce customer bills because customers pay for the power utilities buy on their behalf. Generation accounts for about [half of the cost of electricity](#), the other half pays for power lines, utility programs, and utility billing services. Utilities can buy power in at least three ways – they can buy power on the open market, they can sign long-term contracts with independent suppliers, and they can build and own power plants. In each case, the tax credits put downward pressure on the price of new power. Because utilities are heavily regulated, they are obligated to pass these savings directly onto customers, reducing electricity bills each month.



Utilities plan far into the future because building new power plants and transmission lines takes several years. Currently, coal power is getting more expensive as existing plants age, face increasing pollution regulation, and are utilized less. According to NextEra's Ketchum, supply chain snarls have [tripled gas turbine costs since 2022](#). Meanwhile, solar, batteries, and geothermal have stayed affordable. This is driving an industry-wide switch from coal to renewables, with wind and solar [overtaking coal's electricity generation in 2024](#).

The 2022 tax credits provide long-term certainty about the price of affected resources – they are slated to roll off in 2032 at the earliest. That the tax credits are

reducing costs is evident in the resources utilities are planning to build in the next four years – about 90 percent are resources receiving tax credit support. Under watchful state and federal regulation, utilities must choose the lowest-cost sources of electricity that can meet growing demand.

The utility industry cannot sharply change course, especially with demand skyrocketing – it is planning to build these resources and will likely do so whether or not federal policies change. If \$45Y and \$48E credits are repealed, utilities like Basin Electric and NextEra would pass increased costs directly to electricity customers, imposing greater energy burdens and stunting economic growth throughout the country.

## Conclusion

Inflation is hitting Americans hard, including on electricity bills. Federal energy tax credits are a bulwark against

continued price increases. The research is clear – repealing technology-neutral energy tax credits would raise annual energy bills up to \$140–\$220 per year nationally, and over \$500 per year in some states. Electric utilities know this – that's why they are saying publicly that Congress would force consumer costs higher by repealing these vital money-saving laws. As Congress debates the future of these tax credits, repealing them is not the smart path forward, as it would exacerbate inflation and cut into Americans' pocketbooks.