

## **Written Testimony Before the US House Committee on Oversight and Government Reform**

**Subcommittee on Economic Growth, Energy Policy, and Regulatory Affairs  
and Subcommittee on Health Care and Financial Services**

### **Mandates, Meddling, and Mismanagement: The IRA's Threat to Energy and Medicine**

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#### **The Inflation Reduction Act's Green Energy Tax Credits**

Chairmen Burlison and Grothman, Ranking Members Frost and Krishnamoorthi, and distinguished members of the House Committee on Oversight and Government Reform, thank you for the opportunity to provide testimony on the Inflation Reduction Act's (IRA) green energy tax credits. I am William McBride, Chief Economist and Stephen J. Entin Fellow in Economics at the Tax Foundation, where I focus on how we can improve our federal tax code.

Today, my testimony will focus on three points. First, I will discuss how and why the budgetary cost of the IRA's tax credits has grown. Second, I will describe who benefits from the tax credits. Third, I will recommend ways to reform the credits and comment on the reforms specified in the reconciliation legislation put forward by the House Ways and Means Committee.

#### **The Growing Cost of the Credits**

The IRA's green energy tax credits may be the most egregious, but certainly not the only, example of a budget estimate that did not match reality. In this case, it is mainly the result of rushed legislation containing complicated, novel features targeting new and evolving technologies with an uncertain future. Fundamentally, even industry experts have a difficult time forecasting sales of electric vehicles (EVs) or the development of other niche technologies targeted by the credits, even from one year to the next, much less 10 years into the future as required by the budget process. The uncertainty is compounded by complicated features of the credits, including bonus credits for meeting various conditions such as domestic content, prevailing wage and apprenticeship requirements, and transferability and the direct pay option. Lastly, the statute granted significant authority to the Treasury Department to fill in many of the details, with more than 400 pages of

guidance issued in the first year alone, changing the law over time often in ways that increased the cost.<sup>1</sup>

In August 2022, to meet an accelerated timetable for consideration of the reconciliation bill known as the Inflation Reduction Act, the Joint Committee on Taxation (JCT) provided an initial budget estimate indicating the credits in the bill would reduce revenues by about \$271 billion over the period 2023 to 2031. In addition, the Congressional Budget Office (CBO) estimated the bill's direct spending on climate initiatives would add about \$120 billion to the cost of the bill over the same period.<sup>2</sup>

Soon after the IRA was enacted, several outside groups began providing estimates indicating the cost of the credits would be much more than originally expected. For example, Goldman Sachs estimated the cost of the IRA credits and climate spending initiatives would total about \$1.2 trillion over a decade.<sup>3</sup> A study by scholars at the Brookings Institution found the fiscal cost through 2031 could range from \$244 billion to \$1.1 trillion depending on assumptions about eligibility and supply constraints.<sup>4</sup>

A mere nine months after the bill was enacted, in May 2023, JCT provided an updated estimate indicating the cost of the credits had grown to \$536 billion over the period 2023 to 2031, roughly doubling its original estimate. The cost more than quadrupled for some of the credits, such as those for EVs, advanced manufacturing, and carbon sequestration. JCT attributed the cost growth to several factors, including the Treasury Department's expansive guidance, which effectively increased eligibility for many credits, and increases in anticipated production capacity for batteries and renewable energy. JCT also provided an estimate over a longer budget window, finding the credits would cost \$663 billion over the period 2023 to 2033.<sup>5</sup>

As an example of guidance that expanded eligibility, Treasury provided a ruling that allows taxpayers to avoid the legislation's eligibility limits for the \$7,500 EV tax credits. Congress designed the rules to prevent people earning more than \$300,000 from getting the credits and further limited them to apply only to cars with a sales price below \$55,000 and SUVs and trucks with a sales price below \$80,000. Treasury ruled that these, and other limits regarding domestic content requirements, do not apply to leased vehicles. Unsurprisingly, leasing grew from about 7 percent of EV sales to about 34 percent.<sup>6</sup> The Treasury Department also provided guidance that eased the domestic content requirements for many of the credits for batteries and other technologies.

JCT's analysis had not factored in regulatory efforts by the Biden administration that would further in-

1 William McBride, Alex Muresianu, Erica York, and Michael Hartt, "Inflation Reduction Act One Year After Enactment," Tax Foundation, Aug. 16, 2023, <https://taxfoundation.org/research/all/federal/inflation-reduction-act-taxes/>.

2 Congressional Budget Office, "Estimated Budgetary Effects of H.R. 5376, the Inflation Reduction Act of 2022," Revised Aug. 5, 2022, [https://www.cbo.gov/system/files/2022-08/hr5376\\_IR\\_Act\\_8-3-22.pdf](https://www.cbo.gov/system/files/2022-08/hr5376_IR_Act_8-3-22.pdf).

3 Goldman Sachs, "Carbonomics: The Third American Energy Revolution," Mar. 22, 2023; see also Penn-Wharton Budget Model, "Update: Budgetary Cost of Climate and Energy Provisions in the Inflation Reduction Act," Apr. 27, 2023, <https://budgetmodel.wharton.upenn.edu/estimates/2023/4/27/update-cost-climate-and-energy-inflation-reduction-act>.

4 John Bistline, Neil Mehrotra, and Catherine Wolfram, "Economic Implications of the Climate Provisions of the Inflation Reduction Act," Brookings Papers on Economic Activity, Mar. 30, 2023, [https://www.brookings.edu/wp-content/uploads/2023/03/BPEA\\_Spring2023\\_Bistline-et-al\\_unembargoedUpdated.pdf](https://www.brookings.edu/wp-content/uploads/2023/03/BPEA_Spring2023_Bistline-et-al_unembargoedUpdated.pdf); see also Christine McDaniel, "The Cost of Battery Production Tax Credits Provided in The IRA," Forbes, Feb. 1, 2023, <https://www.forbes.com/sites/christinemcdaniel/2023/02/01/the-cost-of-battery-production-tax-credits-provided-in-the-ira/?sh=6a32399679ef>; Christine McDaniel, "The Cost of Wind Production Tax Credits Provided in the IRA," Forbes, Mar. 8, 2023, <https://www.forbes.com/sites/christinemcdaniel/2023/03/08/the-costs-of-wind-production-tax-credits-provided-in-the-ira/?sh=7ba0259d5ff7>.

5 William McBride and Daniel Bunn, "Repealing Inflation Reduction Act's Energy Credits Would Raise \$663 Billion, JCT Projects," Tax Foundation, Jun. 7, 2023, <https://taxfoundation.org/inflation-reduction-act-green-energy-tax-credits-analysis/>; Martin Sullivan, "Revised EV Credit Estimate Further Raises Total Green Energy Costs," Tax Notes, Jun. 5, 2023, <https://www.taxnotes.com/tax-notes-today-federal/budgets/revised-ev-credit-estimate-further-raises-total-green-energy-costs/2023/06/05/7gtml>.

6 Lawrence Ulrich, "Electric Vehicle Tax Credit Rules Create 'Chaos for Consumers,'" *The New York Times*, Apr. 20, 2023, <https://www.nytimes.com/2023/04/20/business/electric-vehicle-tax-credits-consumers.html>.

crease the cost of the credits. For example, the Environmental Protection Agency (EPA) issued rules that mandated stricter emissions standards for new vehicles starting in 2027, effectively requiring a major shift to EVs.<sup>7</sup> The EPA estimated the new regulations could add as much as \$210 billion in tax revenue losses between 2027 and 2032: \$136 billion from EV credits and \$74 billion from the battery production credit.<sup>8</sup>

More recently, the latest tax expenditure estimates from the Treasury Department and JCT indicate the cost of the credits has grown to about \$1.2 trillion over the next decade (2025-2034), including IRA additions, extensions, and expansions of pre-existing credits that were phasing down (the federal government began subsidizing solar panels and windmills in 1978). Treasury estimates the energy production credit is the costliest at \$304 billion over the next decade, followed by tax credits for clean vehicles (\$206 billion), the advanced manufacturing production tax credit (\$190 billion), and the energy investment tax credit (\$138 billion). Treasury estimates about \$341 billion of the total cost of the credits is from outlays attributable to the IRA's direct pay option, a feature available to tax-exempt entities such as nonprofits and state and local governments.<sup>9</sup>

A recent study by the Cato Institute reviewing various estimates finds the cost of the credits ranges considerably, from as little as \$936 billion to as high as \$1.97 trillion over the next decade. Over the period 2025 to 2050, Cato finds costs range from \$2.04 trillion to \$4.67 trillion. The differences are driven partly by different underlying forecasts of the technologies, with the low end of costs relying on projections from the Energy Information Administration and the high end using projections from the National Energy Renewal Lab.<sup>10</sup> The Tax Foundation has recently estimated that full repeal of the IRA credits would reduce deficits by \$851 billion over the next decade, which still involves continued costs over the next decade as some of the credits, such the production credit, take up to a decade to wind down.<sup>11</sup>

## Who Benefits from the Credits

The primary beneficiaries of the IRA credits are businesses that specialize in renewable energy and higher-income consumers with preferences for EVs, solar panels, and other green technologies. For example, a recent study finds that the top 20 percent of individual taxpayers by income receive more than 80 percent of all EV credits.<sup>12</sup>

Perhaps because they entail a high degree of complexity, specialization, risk, and compliance, the major renewable energy business tax credits are predominantly taken by large corporations. The JCT found that corporations with gross receipts of more than \$25 billion in 2020 received more than half of the investment

7 Environmental Protection Agency, "Multi-Pollutant Emissions Standards for Model Years 2027 and Later Light-Duty and Medium-Duty Vehicles," April 2023, <https://www.epa.gov/system/files/documents/2023-04/420d23003.pdf>; Department of Transportation, "Corporate Average Fuel Economy," accessed Aug. 2, 2023, <https://www.nhtsa.gov/laws-regulations/corporate-average-fuel-economy>.

8 Ibid.; see also Martin Sullivan, "EPA Estimates Its Regs Would Cost Treasury Hundreds of Billions," Tax Notes, Jun. 20, 2023, <https://www.taxnotes.com/tax-notes-today-federal/energy-taxation/epa-estimates-its-regs-would-cost-treasury-hundreds-billions/2023/06/20/7gwb0>.

9 William McBride, "Cleaning Up the Tax Code Could Raise Trillions for Tax Reform," Tax Foundation, Feb. 6, 2025, <https://taxfoundation.org/blog/tax-credits-expeditures-spending-offset-tax-cuts/>.

10 Travis Fischer and Joshua Loucks, "The Budgetary Cost of the Inflation Reduction Act's Energy Subsidies," Cato Institute, Mar. 11, 2025, <https://www.cato.org/policy-analysis/budgetary-cost-inflation-reduction-acts-energy-subsidies>.

11 Alex Muresianu, "Four Paths for Inflation Reduction Act Reforms," Tax Foundation, Mar. 20, 2025, <https://taxfoundation.org/blog/inflation-reduction-act-ira-credits-repeal-reform/>.

12 Soren Borenstein and Lucas W. Davis, "The Distributional Effects of U.S. Tax Credits for Heat Pumps, Solar Panels, and Electric Vehicles," NBER Working Paper 32688, July 2024, <https://www.nber.org/papers/w32688>.

and production tax credits, two of the largest business credits that were extended as part of the IRA.<sup>13</sup>

Based on distributional analysis by the Tax Policy Center, economist Jason Furman estimated the IRA credits will provide a benefit of more than \$11,000 for the top 1 percent of earners in 2027, raising their after-tax incomes by 0.5 percent. In contrast, the bottom 20 percent of earners will receive a benefit of less than \$100, raising their after-tax incomes by 0.3 percent.<sup>14</sup>

Regarding broader economic benefits, the IRA credits certainly reduce the cost of investment in the targeted technologies related to renewable energy. However, the cost of complying with various conditions attached to the credits (e.g., prevailing wage requirements) diminishes the law's investment impacts.<sup>15</sup> Furthermore, because the targeted areas are a small portion of the economy, we should not expect the credits to substantially increase investment overall. The limited data we have so far does not indicate any measurable economy-wide benefits.<sup>16</sup>

The trend toward green energy investment and the adoption of cleaner technologies predates the IRA. A decades-long series of technological improvements have steadily improved the quality and lowered prices of key technologies such as batteries and solar panels, making widescale adoption and deployment much more feasible even without additional subsidies. As such, it is unclear to what degree the IRA credits have added to the trend by boosting marginal incentives rather than merely subsidizing technologies that would have been developed anyway.<sup>17</sup>

Another challenge is that without sufficiently addressing barriers to increased supply, the subsidies mainly just push prices up, potentially offsetting a large part of the subsidy for consumers and instead shifting most of the benefits to incumbent producers. For example, without permitting reform to allow more rapid development of transmission lines, additional power generated by windmills and solar panel farms cannot be accessed and utilized. Instead, the producers of the energy receive subsidies but may not greatly increase energy production if it cannot be brought to market at an acceptable price. As another example, increased EV adoption depends on addressing the lack of charging stations, as potential buyers have so-called "range anxiety." Until that is remedied, there may be a ceiling on EV adoption.<sup>18</sup>

Furthermore, increased investment does not necessarily translate to higher levels of productivity, better jobs, and higher wages. While we don't know yet if these particular technologies will lead to that, the history of such targeted incentives and industrial policy more broadly gives us reasons to be skeptical. There's a stronger track record for broad-based incentives such as full expensing for all capital investment.<sup>19</sup>

13 Joint Committee on Taxation, "Tentative Energy Credits by Industry," Mar. 31, 2023, [https://waysandmeans.house.gov/wp-content/uploads/2023/04/31\\_23-JCT-IRA-Sec-45-and-48-Analysis.pdf](https://waysandmeans.house.gov/wp-content/uploads/2023/04/31_23-JCT-IRA-Sec-45-and-48-Analysis.pdf).

14 Jason Furman, "Comment on 'Economic Implication of the Climate Provisions of the Inflation Reduction Act'," Mar. 30, 2023, [https://www.brookings.edu/wp-content/uploads/2023/02/2b\\_20230330-BPEA-climate-furman-comment.pdf](https://www.brookings.edu/wp-content/uploads/2023/02/2b_20230330-BPEA-climate-furman-comment.pdf).

15 Associated Builders and Contractors, "Studies on the Negative Impact of the Davis-Bacon Act and Prevailing Wage Policies," January 2023, <https://www.abc.org/Portals/1/2023/Politics%20Policy/DavisBacon/ABC%20Prevailing%20Wage%20Davis%20Bacon%20Studies%20Summary%20Updated%20January%202023.pdf>.

16 Congressional Budget Office, "Business Tax Credits for Wind and Solar Power," Apr. 11, 2025, <https://www.cbo.gov/publication/61188>.

17 John Bistline, Neil Mehrotra, and Catherine Wolfram, "Economic Implications of the Climate Provisions of the Inflation Reduction Act," Brookings Papers on Economic Activity, Mar. 30, 2023, [https://www.brookings.edu/wp-content/uploads/2023/03/BPEA\\_Spring2023\\_Bistline-et-al\\_unembargoedUpdated.pdf](https://www.brookings.edu/wp-content/uploads/2023/03/BPEA_Spring2023_Bistline-et-al_unembargoedUpdated.pdf).

18 Omar Isaac Asensio, Elaine Buckberg, Cassandra Cole, Luke Heeney, Christopher R. Knittel, and Jame H. Stock, "Charging Uncertainty: Real-Time Charging Data and Electric Vehicle Adoption," NBER Working Paper 33342, January 2025, <https://www.nber.org/papers/w33342>.

19 Alex Muresianu, "Tax Cuts and Jobs Act, Inflation Reduction Act, CHIPS Act: Comparing and Contrasting the New Industrial Policy," Tax Foundation, Mar. 8, 2024, <https://taxfoundation.org/research/all/federal/supply-side-economics-industrial-policy/>.

The IRA credits were also meant to reduce carbon emissions, with many studies predicting a substantial effect.<sup>20</sup> It should be noted that carbon emissions per capita have been in steep decline in the US for the last 20 years, currently matching levels from the early 1900s.<sup>21</sup> Many factors have driven emissions lower over the last two decades, including the development of fracking and other technologies that allowed relatively low-emission energy sources such as natural gas to replace relatively high-emission sources such as coal.

## Recommendations for Reform

In general, the IRA credits should be repealed, or, at a minimum, substantially curtailed to bring their cost down closer to the original estimates provided to lawmakers when the bill was being debated in 2022. The original estimates indicated the credits would largely phase out by the end of their first decade, but because many of the expiration dates are tied to emissions reductions (75 percent from 2022 levels) that are unlikely to be achieved within that timeframe, more recent estimates indicate costs will continue to grow beyond this period. Lawmakers should streamline and shrink the credits or potentially cap their annual cost (currently only one of the many IRA credits is capped).

As mentioned, we have estimated that full repeal of the credits would reduce deficits by \$851 billion over the next decade (2025-2034). Partial repeal should focus on the credits that are least effective at reducing emissions, including credits for EVs, refueling property, and clean fuel production, and residential credits for energy property and energy efficiency, which we have estimated would reduce deficits by \$295 billion over the next decade. We estimate replacing the complicated investment and production tax credits with a simplified smaller production tax credit would raise \$207 billion over the next decade. Repealing most credits but keeping a reformed production tax credit, nuclear power production credit, and carbon sequestration credit would raise \$746 billion.<sup>22</sup>

Policymakers should pursue neutral policy to boost energy production—that is, treating all investment equally. Currently, the tax code is biased against most investment, as bonus depreciation now provides only a 40 percent immediate deduction and completely phases out in 2027. Allowing a full and immediate write-off for all investment is the ideal pro-growth tax policy. Studies suggest that neutral, broad policy (the TCJA approach) was more successful at boosting investment than the targeted policy in the IRA.<sup>23</sup>

The House reconciliation bill put forward by the Ways and Means Committee goes a long way toward meeting these goals, reducing the cost of the credits by around \$500 billion over the next decade.<sup>24</sup> The bill repeals the EV tax credits, residential energy efficiency credits, and the clean hydrogen production credit. The bill also phases down many of the other credits beginning in 2029, removes transferability beginning in 2027, and introduces new restrictions on foreign entities of concern.<sup>25</sup> The bill could be im-

20 John Bistline, Neil Mehrotra, and Catherine Wolfram, “Economic Implications of the Climate Provisions of the Inflation Reduction Act,” Brookings Papers on Economic Activity, Mar. 30, 2023, [https://www.brookings.edu/wp-content/uploads/2023/03/BPEA\\_Spring2023\\_Bistline-et-al\\_unembargoedUpdated.pdf](https://www.brookings.edu/wp-content/uploads/2023/03/BPEA_Spring2023_Bistline-et-al_unembargoedUpdated.pdf).

21 Our World in Data, “United States: Per Capita: How Much CO<sub>2</sub> Does the Average Person Emit?,” accessed May 15, 2025, <https://ourworldindata.org/co2/country/united-states>.

22 Alex Muresianu, “Four Paths for Inflation Reduction Act Reforms,” Tax Foundation, Mar. 20, 2025, <https://taxfoundation.org/blog/inflation-reduction-act-ira-credits-repeal-reform/>.

23 Alex Muresianu, “Tax Cuts and Jobs Act, Inflation Reduction Act, CHIPS Act: Comparing and Contrasting the New Industrial Policy,” Tax Foundation, Mar. 8, 2024, <https://taxfoundation.org/research/all/federal/supply-side-economics-industrial-policy/>.

24 Garrett Watson, Erica York, Alex Muresianu, Alex Durante, Huaqun Li, Peter Van Ness, and Aleksei Shilov, “‘Big Beautiful Bill’ House GOP Tax Plan: Preliminary Details and Analysis,” Tax Foundation, May 13, 2025, <https://taxfoundation.org/research/all/federal/big-beautiful-bill-house-gop-tax-plan/>.

25 Shuting Pomerleau, “Overhaul of IRA Energy Credits: House Proposal,” American Action Forum, May 13, 2025, <https://www.americanactionforum.org/insight/overhaul-of-ira-energy-credits-house-proposal/>.

proved by starting the phaseout sooner, reducing the odds that a future Congress and administration will extend the credits (a well-established pattern for the energy credits that preceded the IRA), while smoothing the transition by providing clearer, simpler rules for the credits as long as they are still on the books. Lastly, the legislation expands and extends the clean fuel production credit at a cost of \$45 billion according to JCT, but here also lawmakers should try to reduce the cost by repealing or more quickly phasing down and streamlining the provision.

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