















Power Brief translates clean energy policy into the language of business.

Power Brief provides concise, visual updates for C-suites, Boards of Directors, investors, and companies invested in the energy transition. Its core focus is on customizable decks and memos to keep your most important stakeholders updated.

Power Brief was founded by Jason Clark – the former Chief Strategy Officer of the American Clean Power Association (ACP) and former Partner at Ballast Research (now Penta).

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Crux is the central platform for transferable tax credits.

Crux is the financial technology company changing the way energy and manufacturing projects are financed in the U.S. Its first offering is the leading platform to transact and manage transferable tax credits.

Crux helps clean energy developers and manufacturers, tax credit buyers, and financial institutions access the widest network, authoritative data insights, and market-validated documentation and tools to streamline transactions.

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Backdrop

- Trump won the 2024 election and Republicans won the Senate. Control of the House is not yet known. Changes to the political landscape raise valid questions about future energy policy.
- **Energy demand is on the rise** for the first time in decades, and Trump has been outspoken about energy costs and need arising from AI, crypto, and industry.
- Though Trump has spoken poorly of the IRA, the legislation supports known policy priorities: he has pledged to deliver the **"#1 Lowest Cost Energy and Electricity on Earth,"** embraced nuclear, and promised to support domestic manufacturing and supply chains.
- Clean energy installations grew significantly during Trump's first term, despite tariffs on certain imported components for clean energy projects. Significant use of tariffs could slow the pace of project development in reliant categories.
- Tax credits for wind and solar have been used for decades and extended by every partisan configuration of the House, Senate, and Presidency. Credits were extended and expanded during Trump's first term.
- Passed in 2022, the IRA makes significant use of tax credits, which are extended until 2032 or until when the electric power sector
 emits 75% less carbon than 2022 levels. Material changes to the credits would require new legislation. Any changes to tax law are
 almost always made looking forward and with some phase-in period.
- In addition to expanded support for existing clean energy technologies, the law expands support for a wide range of technologies, including battery storage, biogas, carbon capture, nuclear, domestic manufacturing, and mining critical minerals.
- Guidance has already been issued for most components of the IRA. An incoming administration would have latitude to make changes to guidance only within the confines of the statute.

Executive Summary



The IRA is current law & will not be fully repealed.

Significant investment has already occurred in Republican states and districts, reflected in 18 Republican members writing a letter of support for the law and recent comments by Speaker Johnson. The IRA includes many Republican-supported elements, and thus a full-scale repeal is unlikely. Increasingly forward-looking behavior by market participants reflects this view.



Any potential adjustments to the IRA will be more surgical in nature and not retroactive.

Market participants should expect debate about potential modifications to aspects of the IRA. Individual components of the law have different risk profiles and would be handled differently. Provisions related to newly eligible categories like advanced manufacturing and nuclear have received Republican support, while provisions related to EVs, grant and loan authorities, and the Greenhouse Gas Reduction Fund face higher risk. Ultimate composition of the House will be material to consideration of any modifications.



Transferability market has proven to be a critical tool to accelerate development and manufacturing, even if dynamics around project development change.

The rapid growth of transferability and demonstrates its criticality as the US looks to support a wide range of energy and manufacturing objectives. The tendency for Congress to use safe harbors and phase in changes, as well as change in law protections in most transaction documents, will provide comfort to most market participants. Even if adjustments occur, neither party has an interest in stranding active projects.



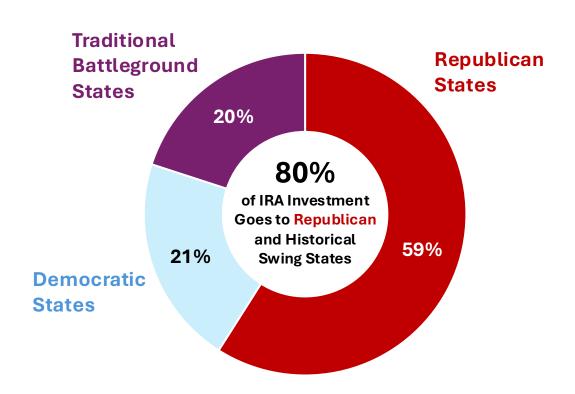
The IRA Is Current Law & Will Not Be Fully Repealed



Red and Purple States Have Benefited the Most from Tax Credits – Creating Jobs Across the Country and Support Energy Security

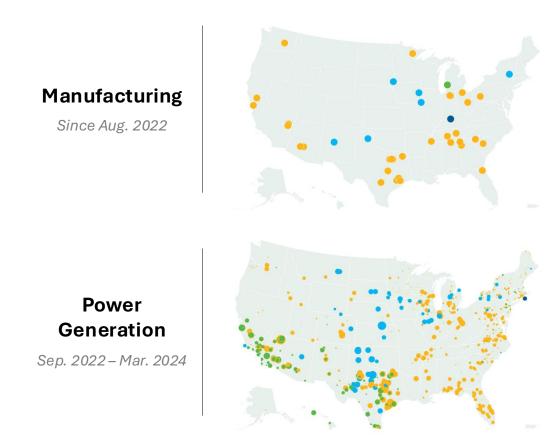
\$439B in Actual Investment from Technologies Eligible for IRA Tax Credits

July 2022 – June 2024



42 Manufacturing Facilities and 55 GW of New Utility-Scale Power Generation Online





Source: Cipher | Rhodium Group and MIT CEEPR

The Positive Economic Impact of the IRA Is Already Significant

\$3 Trillion of Investment

Goldman Sachs has estimated the IRA will drive \$3 trillion of investment in US infrastructure and manufacturing. Investments are fundamentally supported by tax credits.

1.5 Million Jobs

Government and external estimates forecast millions of net additional engineering, construction, manufacturing, and mining jobs, which are broadly distributed across the country. Union labor disproportionately benefits from the law.

\$250B of GDP Benefit

Electric power and construction GDP grow by hundreds of billions each by 2030 in impact models

Republicans Have Voiced Support for Market Certainty and the Underlying Premise of Investment in the Tax Credits

Congress of the United States

Washington, DC 20515

August 6, 2024

The Honorable Mike Johnson Speaker U.S. House of Representatives Washington, D.C. 20515

Dear Speaker Johnson:

As Members of the House Republican Conference, we write to urge you to prioritize business and market certainty as you consider efforts that repeal or reform the Inflation Reduction Act (IRA).

We agree the partisan process of passing the IRA created a deeply flawed bill that will prevent the development of lifesaving cures, empower the IRS to harass small businesses, and distort energy markets. For those reasons, we are proposing a different approach which will unite our party and promote conservative values.

We understand the importance of a healthy and thriving domestic energy sector. American energy dominance increases national security, creates American jobs, and ensures energy independence. We know the U.S produces cleaner energy than anywhere else in the world and has a strong track record of emissions reductions, even before passage of the IRA.

Today, many U.S. companies are already using sector-wide energy tax credits – many of which have enjoyed bipartisan support historically - to make major investments in new U.S. energy infrastructure. We hear from industry and our constituents who fear the energy tax regime will once again be turned on its head due to Republican repeal efforts. Prematurely repealing energy tax credits, particularly those which were used to justify investments that already broke ground, would undermine private investments and stop development that is already ongoing. A full repeal would create a worst-case scenario where we would have spent billions of taxpayer dollars and received next to nothing in return.

Energy tax credits have spurred innovation, incentivized investment, and created good jobs in many parts of the country - including many districts represented by members of our conference. We must reverse the policies which harm American families while protecting and refining those that are making our country more energy independent and Americans more energy secure. As Republicans, we support an all-of-the-above approach to energy development and tax credits that incentivize domestic production, innovation, and delivery from all sources.

We appreciate your work to unite the conference on this important matter. Please consider us partners in reforming our tax policies in a way that puts America first while ensuring certainty for industry and the energy sector.

Sincerely,

August 6th Letter to Speaker Mike Johnson

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Though Current Law, the IRA Has Always Faced Some Headwinds

Not all Announced Investments Are Real (Yet)

26%

of announced manufacturing facilities that qualify for 45X are online (42 of 161 factories)

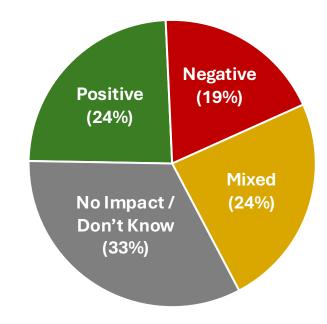
18%

of announced wind, solar, and energy storage capacity online (55 GW of 300 GW)

Not Much Public Awareness of the IRA

% of Voters on How the IRA Has Impacted Them

October 2024



Even Supportive Republicans Are Critical



We agree....the IRA created a deeply flawed bill..... ?

Source: American Clean Power Association Source: Politico | Morning Consult

The IRA is Not a Monolith: Different Technologies Have Support from Different Corners of the Republican Caucus

"....a full-scale repeal of the IRA is not going to happen. Congress rarely does that. It is going to be more surgical in the end."

John Gimigliano

Principal | KPMG

Former Republican tax counsel to the House Ways and Means Committee



Nuclear



Solar



Alternative Fuels (biogas, sustainable aviation fuel)



Land-Based Wind



Carbon Capture & Sequestration (CCS)



Geothermal



Hydrogen



Energy Efficiency



Energy Storage

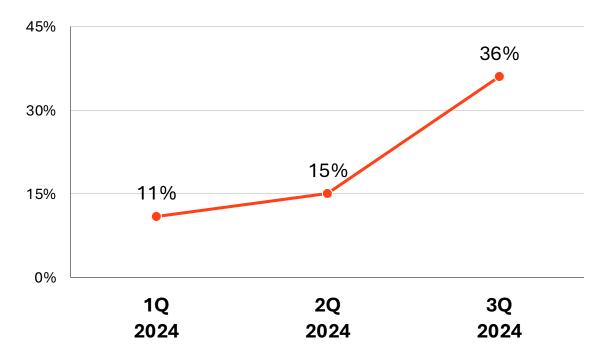


Hydro

Increased Forward Commitments for Tax Credits Underscore Perceived Durability & Significance to Project Finance

Proportion of Transferability Bids Including a Forward Component

PTC and ITC



Source:



- The market is increasingly transacting on future year credits, suggesting confidence in durability.
- Buyers can commit to purchase tax credits in a future year, often at a discount to spot market prices.
- Forward commits on credits allows developers and manufacturers to secure lower cost of capital on debt.

For the purposes of this analysis, Crux considers a forward tax credit purchase to be a binding commitment by a buyer to purchase tax credits that will be generated in a future year, not an intra-year commitment for tax credits that will be generated later that year.

The IRA Exists Within a Much Larger Ecosystem of Priorities for Trump — Other Energy & Non-Energy Priorities Will Likely Come First

Broader Trump Energy Priorities:

Support for Oil & Gas

Trump has promised that the US will have the "#1 lowest cost of energy and electricity." The Department of Interior can immediately expand leases and drilling rights.

LNG

Trump has promised to end the permitting pause his "very first day back."

Roll Back EPA Regulations

Trump has indicated he would seek to undo or weaken regulations on coal & natural gas power plants and reduce Clean Air Act regulations.

Weaken Vehicle and Appliance Efficiency Standards A second Trump administration would likely attempt to roll back fuelefficiency standards for vehicles and energy-efficiency requirements for appliances.

Support for Al and Crypto Increasing energy demand from these important stakeholders will require policy support.

Even Broader Trump Priorities Beyond Energy:

Immigration

A key theme of the election to focus on border security and immigration policies.

Appointments and Staffing Selection for Cabinet posts and staffing up will take time before many actions can be taken.

Global Trade

Imposing global tariffs, negotiating trade deals, and targeting China with new tariffs (impacting economy-wide, not just energy).

IRA Conversations Are Part of a Much Larger Tax Debate in 2025

\$4.5 Trillion for TCJA

Estimate from the Congressional Budget Office (CBO) on the cost to extend the expiring provisions of the Tax Cut and Jobs Act (TCJA) through 2034 — a key election promise of Trump and Congressional Republicans.

Many Tax Provisions

The expiring TCJA provisions are hot-button issues for politicians:

- Individual Income Tax Rates
- Child Tax Credit
- SALT
- Mortgage Interest
- Estate and Gift Tax
- Business Expenses (bonus depreciation, R&D, interest)

Campaign Promises

Trump and Vance have proposed additional tax breaks during their campaign on top of extending TCJA:

- Reduce corporate rate to 15%
- Eliminate taxes on tips, overtime, and Social Security
- Expand the Child Tax Credit
- Cap SALT deductions

The IRA is Only a Drop in the Bucket Compared to TCJA and Will be Part of a Broader Policy Conversation

Estimated Costs of IRA in Proportion to TCJA

In Billions

TCJA

\$3.9 trillion above-andbeyond IRA cost to fully fund 10-year extension

(2025 - 2034)

IRA \$600 billion tax savings in the unlikely event the full IRA is repealed

(2025 - 2033)

How to Navigate TCJA Cost Beyond IRA?

TCJA Extended for Shorter Period

Most likely scenario—the \$4.5 trillion estimate assumes a 10-year extension. A shorter window (e.g., two or four years) would reduce the cost.

Only Parts of TCJA Extended

This would require tough trade offs, but it is feasible to only extend parts of TCJA.

Tariffs

Trump's promise to enact sweeping tariffs may raise revenues — though economists warn secondary effects may worsen fiscal conditions.

Cuts to Other Government Spending Programs

Congress could consider other areas in the federal budget to scale back spending or reduce tax cuts.

Other Revenue Raisers

Congress could also look for other sources of new revenue (like the prescription drug negotiations in IRA).



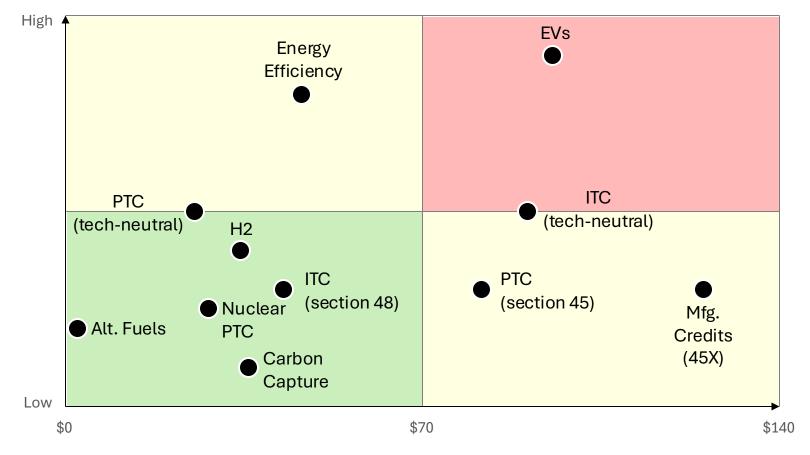
Analyzing <u>Potential Modifications to Some</u> Provisions of the IRA



Each IRA Tax Credit Has its Own Risk Profile & Will Be Handled Differently

Political Risk with Republicans

Based upon public statements and proposed legislative efforts from Republican policymakers.



Cost Savings from Repeal or Modification to Extend TCJA

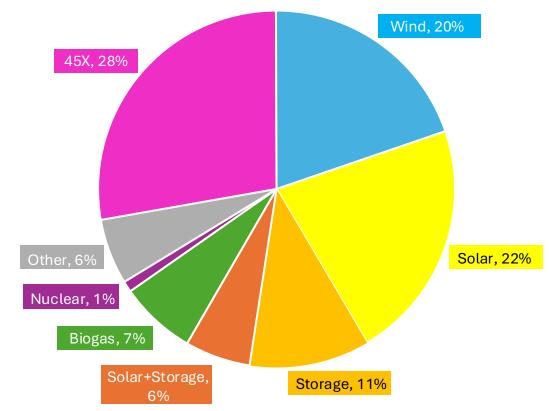
In billions; JTC analysis from May 2023 (modified to focus on costs in 2025 – 2033)



Manufacturing, Wind, Solar and Storage Make Up the Majority of the Transferability Market

Composition of the Transferability Market

Average 2023 - 2024 YTD



45X the Largest Credit in the Market

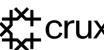
Transferability market skews heavily towards advanced manufacturing tax credits, which comprised 33% of supply in 2023 and 22% of supply in 2024 YTD.

Nuclear will make up an increasing share

Many new investments in nuclear have been announced, and Trump has been supportive.

Energy storage, solar, make up a rising share of transfer market

It is increasingly common for solar projects and energy storage projects of all sizes to sell their tax credits in the transfer market, delivering better economic returns and driving equity among projects of all sizes.



Source:

Modification Options Exist and Scenarios Will Depend Heavily on Balance in the House

Positive Negative	Spectrum of Ways to Modify			
	Full Repeal	Timeline	Credit Value	Restrictions
Tech Neutral ITC/PTC	Not anticipated	Remove the carbon emissions sunset (end credits in 2032 or earlier)	Remove or alter adders (domestic content, labor, low income)	-
45X Mfg. Credits		Advocates will argue to avoid the stepdown scheduled to start in 2030	Possible to expand to critical minerals or further enhance	Restricting foreign entities from qualifying in future years
Hydrogen		-	"Three Pillars" likely altered and potential for modifications based on carbon intensity	-
Nuclear / CCS / Alt Fuels		-	Potential to increase	-

Any Possible Modifications Would be Phased in Over Several Years — Standard Change in Law Provisions Provide Security

Modifying the IRA not a day-one priority nor an easy task

The IRA is a complicated and wide-ranging law with many components and nuances.

In the event Republicans seek changes to portions of specific credits, it would take near unity of the GOP caucus. Attempting to repeal the ACA — where there was much greater alignment — offers one template of the challenge.

TCJA discussions are the only urgency driver and complicating that legislation further could undermine support for the top priority.

Adjustments likely not implemented until later in the decade

Congress tends to provide a gradual phase-in for any changes to policies, especially as it relates to tax policy.

And it almost certainly never applies changes retroactively to existing investments that have already occurred.

Assuming alignment and action to make modifications, it is realistic that any adjustments may not be implemented until 2027 to 2029.

Additionally, change in law risks are well documented and understood in transactions and offer additional protection.

Safe Harbor Strategies Enable Strong Visibility for Transferability into 2030s

Safe Harbor Provides Visibility for Several Years After any Changes

IRS Guidance (2021-41) has long-established market stability whereby projects meeting either of the following tests can "safe harbor" their projects under current tax law and treatment:

- Physical Work Test: Demonstrating work is happening on the project
- 2) <u>Five Percent Rule</u>: Demonstrating 5% of the project cost has already been undertaken

Projects then have several years to place the project in service, which would create the first year of tax credit eligibility under the tax law in place at time of the safe harbor. Guidance on the duration of safe harbors was extended from four years to five years under Trump.

This enables projects to mitigate risk well in advance of policy uncertainty.

Beginning of Construction for Sections 45 and 48; Extension of Continuity Safe Harbor to Address Delays Related to COVID-19 and Clarification of the Continuity Requirement

Notice 2021-41

SECTION 1. PURPOSE

This notice clarifies and modifies the prior Internal Revenue Service (IRS) notices¹ addressing the beginning of construction requirement for both the production tax credit for qualified facilities under § 45 of the Internal Revenue Code (Code) and the investment tax credit for energy property under § 48 of the Code. In response to the Coronavirus Disease 2019 (COVID-19) pandemic, this notice provides that the safe harbor originally provided in section 3.02 of Notice 2013-60 and in section 6.05 of Notice 2018-59 and extended in prior IRS notices (Continuity Safe Harbor) is further extended for property the construction of which began in 2016 through 2020. This notice also provides a clarification of the methods that taxpayers may use to satisfy the Continuity Requirement (as provided in prior IRS notices and defined in section 2 of this notice) to satisfy the beginning of construction requirements under §§ 45 and 48.

SECTION 2. BACKGROUND

Section 38 of the Code allows certain business credits. Among the credits allowed by § 38 are the renewable electricity production tax credit under § 45 and the

¹ Notice 2013-29, 2013-20 I.R.B. 1085; Notice 2013-60, 2013-44 I.R.B. 431; Notice 2014-46, 2014-36 I.R.B. 520; Notice 2015-25, 2015-13 I.R.B. 814; Notice 2016-31, 2016-23 I.R.B. 1025; Notice 2017-20 I.R.B. 431; Notice 2017-4 I.R.B. 431; Notice 2017-4 I.R.B. 431; Notice 2019-43, 2019-31 I.R.B. 437; Notice 2020-41, 2020-25 I.R.B. 954; and Notice 2021-5, 2021-3 I.R.B. 479 (collectively, the prior IRS notices).

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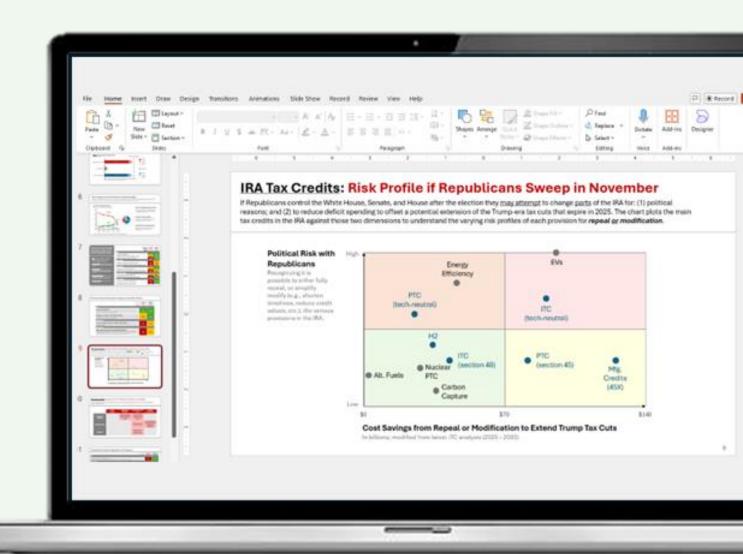
maintained a continuous program of construction will be determined by the relevant facts and circumstances.

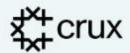


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