

PERSPECTIVE

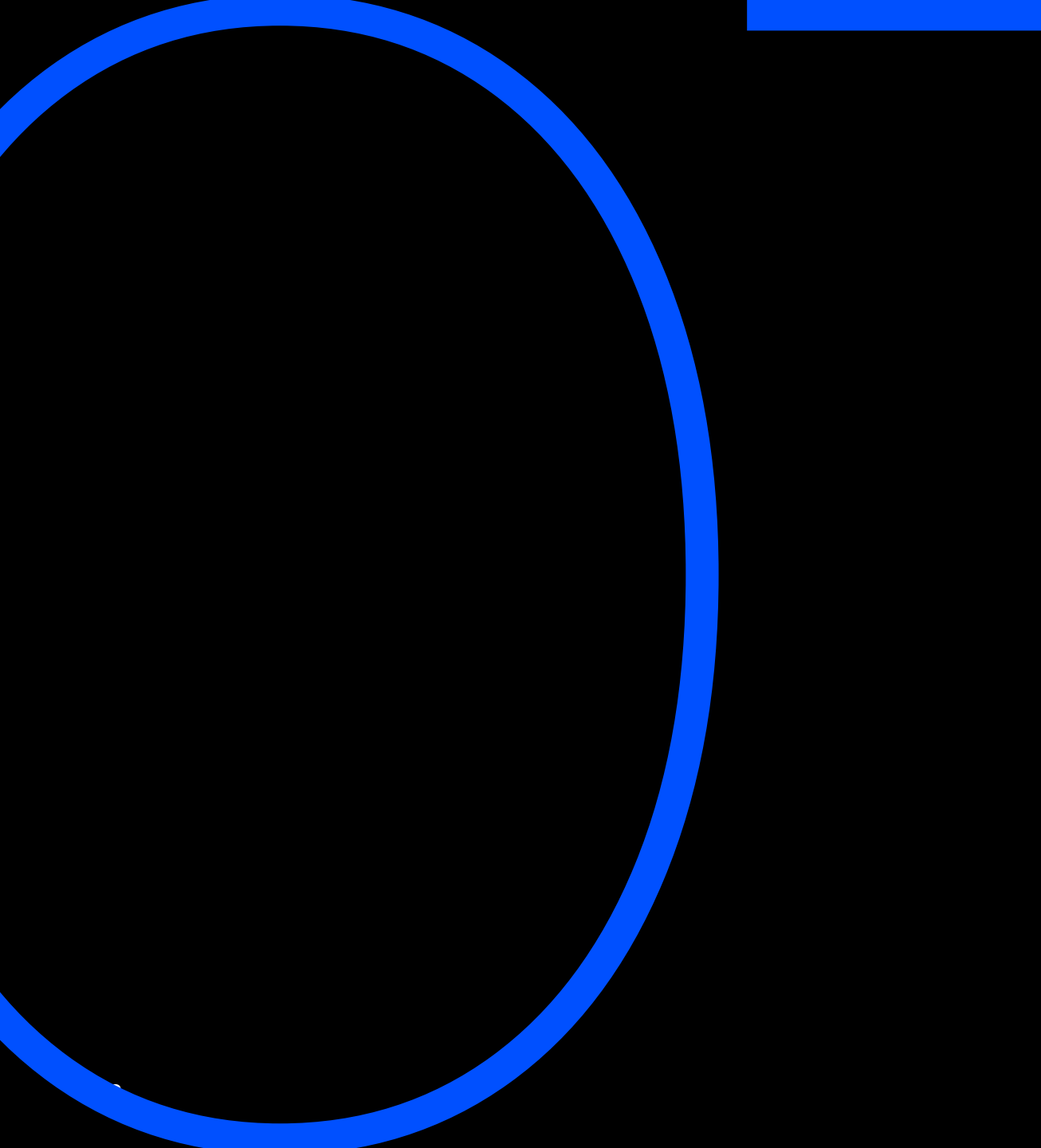


CHANGES EVERYTHING.

**Sustainability Efforts – Update on
Green Energy Tax Incentives and Funding
For Manufacturers**

WIPFLI

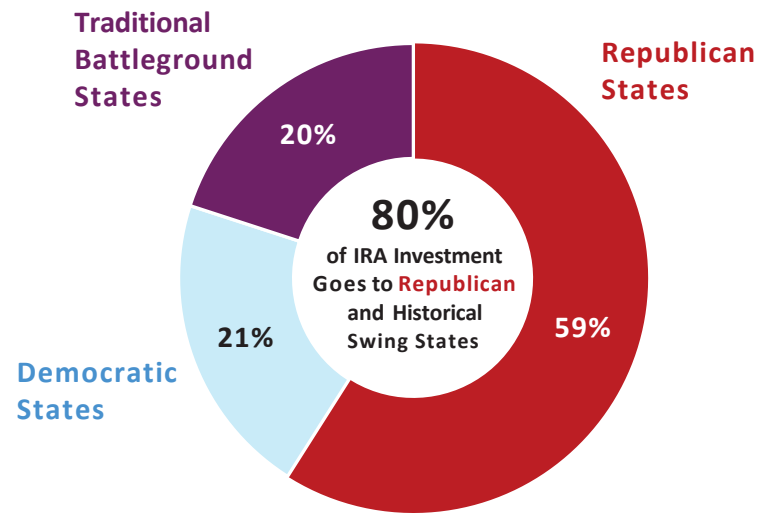
March 25, 2025



**Summary of
Inflation Reduction
Act Energy
Incentives**

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

July 2022 – June 2024



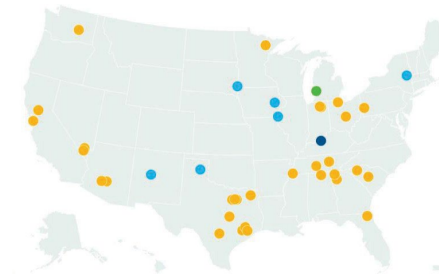
Source: Ciper | Rhodium Group and MIT CEEPR

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

● Solar ● Energy Storage ● Wind ● Offshore Wind

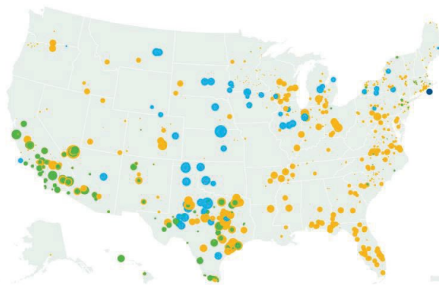
Manufacturing

Since Aug. 2022



Power Generation

Sep. 2022 – Mar. 2024



Source: American Clean Power Association

- Around 80% of the manufacturing investments from the Inflation Reduction Act are in Republican congressional districts , according to The New York Times.

- Unleashing American Energy Executive Orders
 - ▶ Pause in disbursements of funds for 90 days, and in those 90 days create a report and submit to White House Budget Office, demonstrating that the spending aligns with the new administration's energy policies
 - ▶ 90 day window is up on April 20

Energy tax provision summary

Renewable/Clean energy:

- Sec. 45 Production tax credits wind, solar, geothermal, hydropower, etc.
- Sec. 48 Investment tax credits for solar, storage, biogas, fuel cells, etc.
- Sec. 45U Zero-emission nuclear power production credit
- Sec. 45Y and 48E Technology-neutral clean electricity production and investment credits

Manufacturing:

- Sec. 48C Credit for manufacturing energy property, including EV components, fuel cells, electric grids, etc.
- Sec. 45X Manufacturing credit for solar and wind components, batteries and critical minerals

Carbon capture/Hydrogen production:

- Sec. 45Q Credit for carbon oxide sequestration (increased rates and lower thresholds)
- Sec. 45V Clean hydrogen production credit

Alternative fuels:

- Sec. 40 Second-generation biofuel credit
- Sec. 40A and 6426 Biodiesel and renewable diesel; biodiesel mixture credit; alternative fuel credit
- Sec. 40B Sustainable aviation fuel
- Sec. 45Z Clean fuel production credit

Energy efficiency:

- Sec. 25C & 25D Individual credit for energy-efficient homes
- Sec. 45L New energy-efficient home credit
- Sec. 179D Energy-efficient commercial buildings deduction

Transportation:

- Sec. 30D Electric vehicles
- Sec. 30C Charging and alternative fuel refueling stations
- Sec. 25E Used electric vehicles
- Sec. 45W Qualified commercial clean vehicles

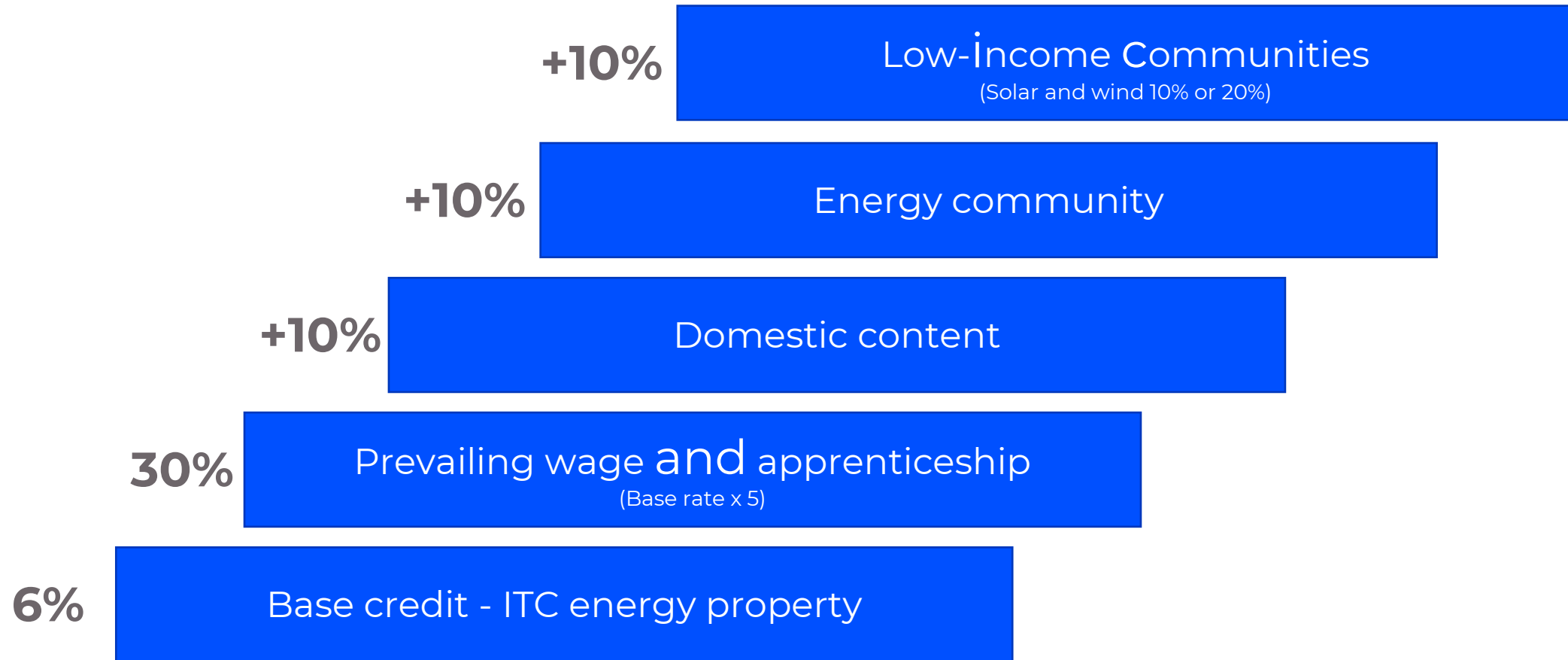


**§ 48 – Investment
Tax Credits (ITC)**

And/Or

**§ 48E – Clean
Electricity
Investment Tax
Credits**

Enhancement of credits



48E Clean Electricity Investment Credit

- Provides a technology-neutral tax credit for investment in facilities that generate clean electricity.
- Beginning in 2025, §48E replaces the long-standing §48 Investment Tax Credit.
- Pre-approved facilities/projects that will qualify for §48E include wind, hydropower, solar, geothermal.
- For projects that aren't included in the pre-approved list put out by the Treasury, a rigorous Provisional Emissions Rates Petition will need to be attached to the tax return, proving that the project creates zero emissions.

Credit Example with Bonuses

Renewable Energy Project Cost	\$1,000,000
Section 48 ITC (30%) Credit	(\$300,000)
Domestic Content Bonus	(\$100,000)
Energy Community Bonus	(\$100,000)
Low Income Community Bonus	(\$100,000)
Depreciation (over 5 years)	
$(\$1.0\text{mil} - (\$600\text{k}/2)) = \$700\text{k} * 21\%$ tax rate	(\$147,000)
Post – Tax Cost	\$253,000



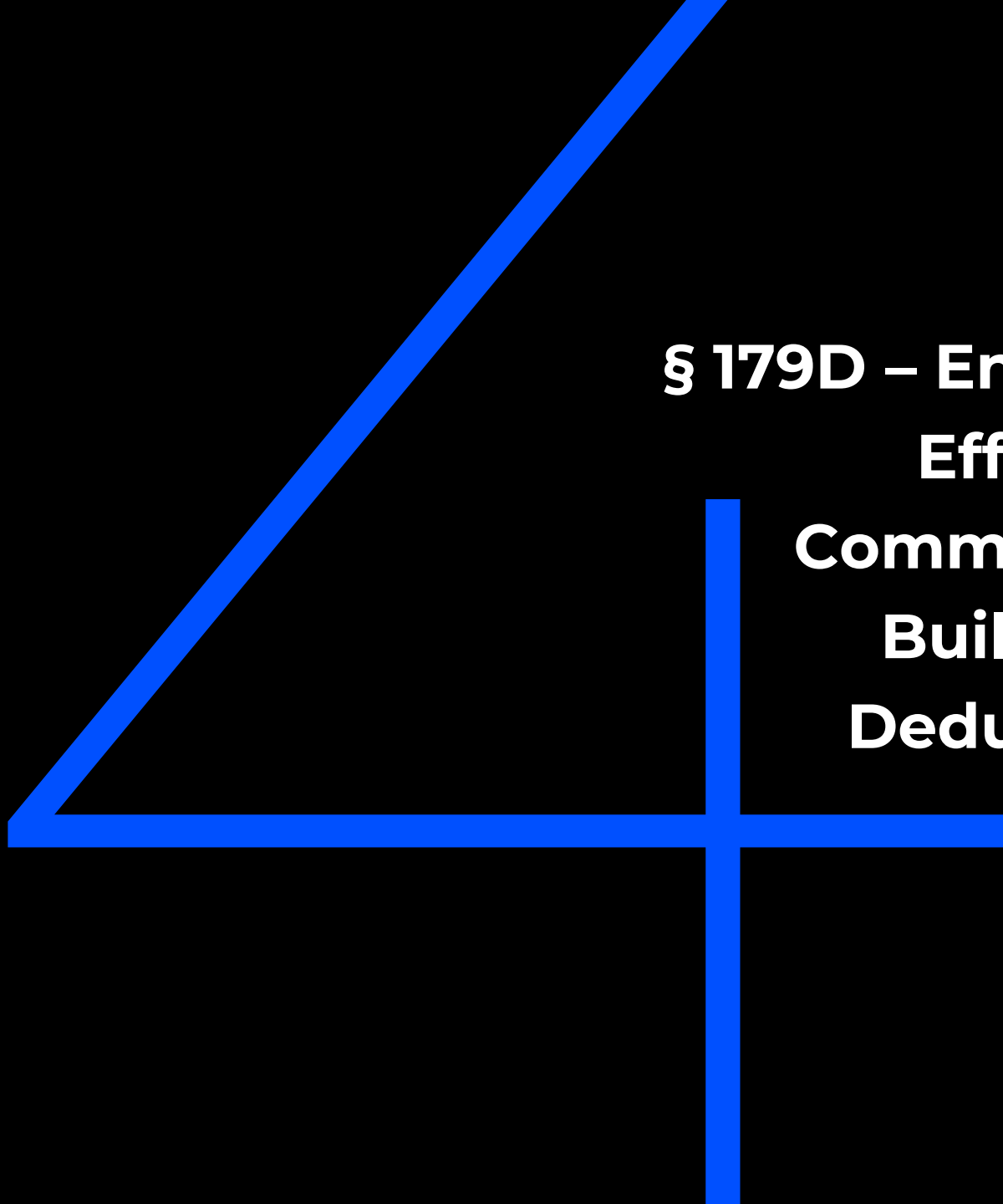
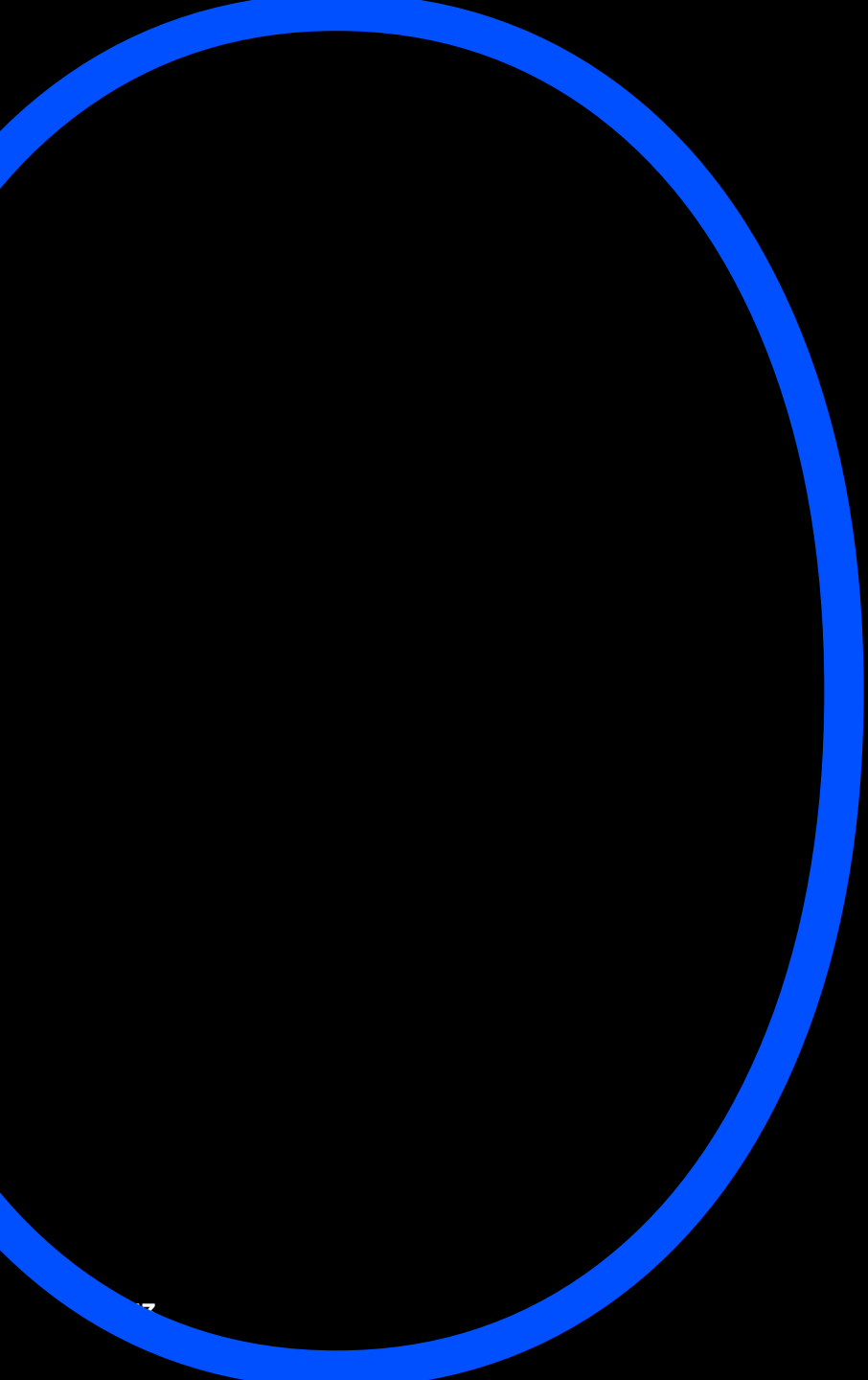
**Monetization of
credits**

Transfer of Credits

- ▶ Required to be paid in cash to unrelated transferee
- ▶ Cash received will be treated as tax-exempt income
- ▶ Cash paid by the buyer is a nondeductible expense
- ▶ Credits can only be transferred once
- ▶ **Buyer will be liable for the recapture of any ineligible credits**
- ▶ Effective for tax years beginning after 2022.
- ▶ Electronic Pre-Filing Registration
 - Must obtain a registration number for each eligible facility
 - Give the registration number to the transferee who must use it to complete a transfer election statement

Carryback of Credits

- For taxable years beginning after December 31, 2022, a 3-year carryback (instead of a 1-year carryback) is included for certain credits.
 - ▶ Sec 48 – Investment Tax Credit
 - ▶ 45X – Manufacturing Credit for solar and wind components, batteries and critical minerals
 - ▶ Sec 45 – Production tax credits wind, solar, geothermal, hydropower, etc.
 - ▶ 45Q – Credit for carbon oxide sequestration
 - ▶ 30C – Charging and alternative fueling station
 - ▶ 45U – Zero-emission nuclear power production credit
 - ▶ 48C – Credit for manufacturing energy property including EV components, fuel cells, electric grids, etc.



**§ 179D – Energy-
Efficient
Commercial
Buildings
Deduction**

179D - Commercial Buildings Energy-Efficiency Tax Deduction

- Enables building owners to claim a tax deduction for installing qualifying systems in buildings.
 - The interior lighting systems (exterior lighting does not qualify);
 - The heating, cooling, ventilation (HVAC), and hot water systems; or
 - The building envelope (e.g., windows and roofing).
- Projects placed in service after 1/1/23
- Bonus deduction: the local prevailing wage and apprenticeship percentage hours must be met
- Maximum deduction increased from \$1.88 p/sq ft to \$5.00 p/sq ft. Almost \$6.00 p/sq ft. in 2025 with inflation riders
- The same building can recertify if energy improvements are made every 3 years.

Prevailing wage will determine the starting point of the benefit

Key relevant changes for EECBP placed in service 01/01/2023

		25% reduction	Each additional % point	50% or higher
Prevailing wage and apprenticeship requirements	Meets	\$2.50/SF	\$0.10/SF	\$5.00SF
	Does not meet	\$0.50/SF	\$0.02/SF	\$1.00/SF

*This notice was published in the Federal Register on November 30, 2022, meaning that prevailing wage requirements first apply to construction projects starting on or after January 30, 2022.



**§ 30C – Alternative
Fuel Vehicle
Refueling Property
Credit**

30C: Alternative Fuel Vehicle Refueling Property Credit

- Businesses: Credit of 6% or 30% of the cost of equipment and installation, up to \$100,000 per item of property
 - Property must be installed in a non-urban or low-income census tract.
 - Prevailing wage and apprenticeship requirements must be met to get the 30% bonus credit level.
- Tax basis reduced by the amount of the credit, and the amount upon which the credit is calculated has to be reduced by any Section 179 expense taken on that property

The image features a black background with several thick, bright blue circular lines. One large circle is on the left side. On the right side, there are two overlapping circles, with the top one partially cut off by the edge of the frame. The text is positioned to the right of the circles.

**45X – Advanced
Manufacturing
Production Credit**

45X Advanced Manufacturing Production Credit

The 45X tax credit subsidizes the production of five types of goods:

1. Solar Energy Components
2. Wind Energy Components
3. Battery Components
4. Inverters
5. Critical Minerals

*Credit amounts vary based on the components being manufactured and amount produced.



**Other Federal
Grants/Incentives**

DOE Grants

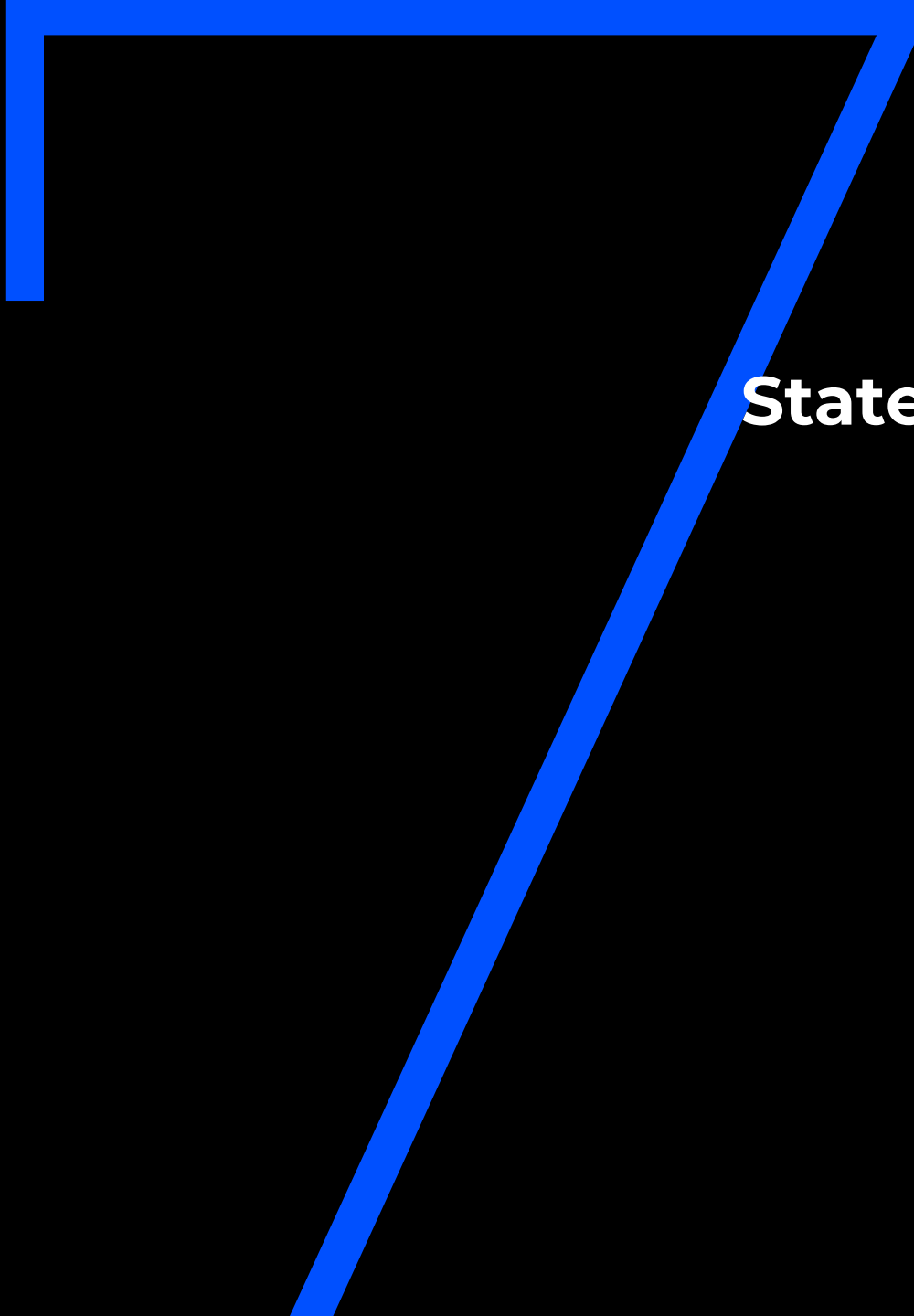
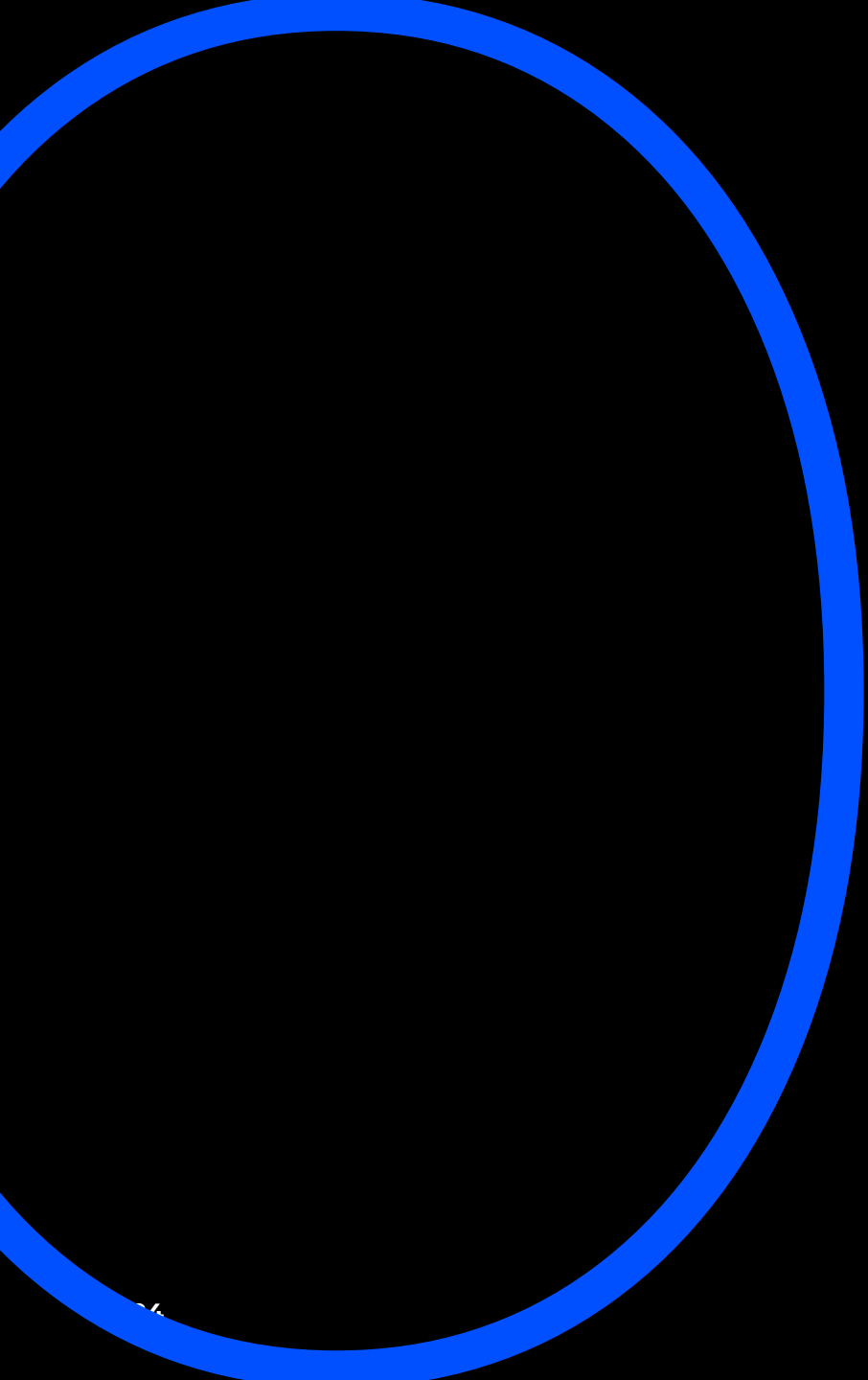
- The Department of Energy facilitates many funding opportunities for manufacturing companies focused on sustainability efforts.
- **Advanced Energy Manufacturing and Recycling Grant Program-** \$750 million set aside to strengthen domestic clean energy manufacturing in communities historically reliant on the coal industry.
- **State Manufacturing Leadership Program-** \$50 million worth of funding to provide financial assistance to small and medium manufactures to implement smart manufacturing technologies and practices.

Steps to Apply for Grants and Incentives

- The application process for clean energy grants and incentives is competitive.
- Refer to the Missouri Department of Natural Resources (state) and Department of Energy (federal) websites to stay up to date on incentives that may be available for your manufacturing company.
- [Financial Assistance Opportunities | Missouri Department of Natural Resources](#)
- [Funding | Department of Energy](#)

Resources

- [Missouri Plan For Environmental Improvement Grants](#)
- [DSIRE](#)
- [Missouri Market Development Program: Financial Assistance - Environmental Improvement and Energy Resources Authority](#)
- [Funding | Department of Energy](#)
- [Advanced Energy Manufacturing and Recycling Grants | Department of Energy](#)
- [State Manufacturing Leadership Program | Department of Energy](#)
- [26 U.S. Code § 45X - Advanced manufacturing production credit | U.S. Code | US Law | LII / Legal Information Institute](#)
- [Financial Assistance Opportunities | Missouri Department of Natural Resources](#)



State Incentives

Missouri Plan for Environmental Improvement Grants

- The Missouri Department of Natural Resources (department) received a grant from the U.S. Environmental Protection Agency (EPA) to develop plans required for Missouri to compete for \$5 billion worth of federal grant funding.
- The plan is meant to ensure that all Missouri communities have an opportunity to implement projects through grant funding.

Missouri Market Development Program

- Provides financial assistance targeted toward developing and expanding manufacturing capacity in Missouri by assisting businesses with the purchase of equipment needed to enable manufacturing facilities to use recovered materials.
- Qualified businesses in Missouri may receive up to 75 percent of specific equipment costs with a maximum funding level of \$250,000.

DSIRE – NC Clean Energy Technology Center

- www.dsireusa.org
- Just under 100 different programs listed for State of Missouri

QUESTIONS



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