Empowering States for Emission-Free Communities: Unleashing IRA's Industry Initiatives

The industrial sector was the third largest source of greenhouse gas emissions in the US in 2021 (<u>Sources of Greenhouse Gas Emissions | US</u> <u>EPA</u>), and emissions are projected to grow significantly over the next few decades (<u>AEO 2021 Emissions (eia.gov</u>)). The industrial sector offers many new opportunities for innovation and decarbonization strategies due to high-emitting industrial processes. Decarbonizing this sector will require partnerships between governments, private companies, and other stakeholders, as well as significant research and development to discover cleaner industrial processes. Beyond reducing emissions for climate targets, it is also important to make industrial processes cleaner as nearby communities often faced undue burdens of industrial pollution..

Altogether, these policies amounting to over \$7.6 billion, excluding tax credits and cross-cutting provisions, could drive emissions down on average 8% by 2030 from 2005 levels (<u>Emissions and energy impacts of the Inflation Reduction Act</u>).

Highlights



For industrial processes, manufacturers can leverage IRA funds allocated for the deployment of technology that reduces emissions (i.e. Advanced Industrial Facilities Deployment Program)



Manufacturers and local leaders can work together to repurpose factories to make clean energy components, taking advantage of the extension of the Advanced Energy Project Credit



State and local governments can push high labor standards and ambitious emission reduction for those projects in which bonus tax credits apply

Implementation Opportunities in the Inflation Reduction Act

- 1. States and cities can promote equity and restorative justice for low-income and disadvantaged communities by requiring manufacturers that exceed a certain emission threshold to submit a cost analysis and timeline for process improvements as well as IRA funding opportunities that could lower local pollution
- 2. Becoming a major player in manufacturing clean energy components, states with the capacity to convert industries to produce renewable technology components can leverage the 45X and 48C tax credits
- **3.** To promote life-sustaining employment, states can create additional incentives or tax credits for industry partners and organizations who agree to hire locally and meet specific labor standards
- 4. States should recognize their local industry strengths and prioritize maximizing available funding for those specific industries
- 5. Cement production facilities can switch to a net-zero fuel mix and carbon capture utilization and storage
- 6. Local and state governments can promote innovation by establishing partnerships between technology developers and industrial facilities, providing assistance in applying for grants through the Industrial Demonstrations Program
- 7. Setting targets for the use of low-carbon materials during construction can increase demand for materials produced by factories and businesses that pollute less



	Provision	Challenges	Opportunities
	Advanced Industrial Facilities Deployment Program (sec. 50161 - \$5.8 billion)	A high upfront cost of emissions-reducing technology can slow or stop deployment of such technologies	States can set goals and policies for industrial facilities to take advantage of the grants, rebates, and cooperative agreements for demonstration and deployment of emissions-reducing processes
	Methane Emissions Reduction Program (sec. 60113 - \$1.6 billion)	Reducing methane is pivotal given its immense warming potential	Governments can partner with applicable local petroleum and natural gas facilities to take advantage of the technical and financial assistance from this program to reduce methane emissions
Hay	Clean Hydrogen Production Tax Credit (45V)	Hydrogen production is an expensive process that may not be financially viable for some industrial facilities	States and local governments can push hydrogen producers to take full advantage of the bonus credit on top of the \$0.60/kg by requiring prevailing wage and apprenticeship requirements to be met
	Advanced Energy Project Credit (48C)	Retooling factories can be economically unfavorable for some manufacturers interested in being part of the clean energy transition	Manufacturers can directly contribute to a clean energy future by using the 6% of qualifying investment tax credit, increased to 30% by meeting labor requirements, to finance production changes to make renewable components
	Advanced Manufacturing Production Credit (45X)	Demand for clean energy components will grow as renewable energy is deployed	With IRA bonus credits in other sectors dependent on domestically- sourced components, governments and project developers are incentivized to support the development of clean energy component manufacturing locally
CO.J.	Credit for Carbon Oxide Sequestration (45Q)	As industries transition away from fossil fuels, they will likely still need to rely on fossil fuels in the interim period, requiring emissions capture	Coordination and planning between governments and industries for carbon capture systems should begin now to ensure requirements are met to leverage the full benefit of this tax credit

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Additional Information

26 USC 45V: Credit for production of clean hydrogen (house.gov)

Building A Clean Energy Economy. The White House. January 2023, Version 2. Accessed 08/2023. <u>Inflation-Reduction-Act-Guidebook.pdf (whitehouse.gov)</u> A User Guide to the Inflation Reduction Act. BlueGreen Alliance. Accessed 08/2023. <u>BGA-IRA-User-Guide-Print-FINAL-Web.pdf (bluegreenalliance.org)</u> Inflation Reduction Act of 2022. <u>Text - H.R.5376 - 117th Congress (2021-2022)</u>: Inflation Reduction Act of 2022 | <u>Congress.gov</u> | <u>Library of Congress</u> Bistline, John, et al. "Emissions and energy impacts of the Inflation Reduction Act." Science 380.6652 (2023): 1324-1327. <u>Emissions and energy impacts of the Inflation</u> <u>Reduction Act | Science</u>

Sources of Greenhouse Gas Emissions. EPA. 2023. Sources of Greenhouse Gas Emissions | US EPA

Glassman, J. et al. Breaking Down the Inflation Reduction Act. Rocky Mountain Institute. Updated July 2023. <u>Breaking Down the Inflation Reduction Act. Program by</u> <u>Program. Incentive by Incentive. - RMI</u>