

Roosevelt's paper [The Receipts: The Untold and Underappreciated Outcomes of Biden's Clean Energy Strategy](#) makes a simple point: Biden-era clean energy industrial policy worked better than many critics admit. Through the Infrastructure Investment and Jobs Act (IIJA), the CHIPS and Science Act, and the Inflation Reduction Act (IRA), the federal government drove private investment, expanded industrial capacity, raised wages, and grew apprenticeships.

This set of public policies helped build markets and produced better outcomes for workers and communities. The evidence points to **four big takeaways**: These investments “crowded in” private capital; wage requirements ensured jobs in these communities paid well; incentive-based apprenticeship rules helped build the workforce needed to make this strategy real; and labor and community standards resulted in better jobs and stronger projects garnering less opposition.

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## Biden-Era Clean Energy Policy Crowded In Private Investment and Expanded Industrial Capacity

- Announced clean-energy private-sector investments in the 12 quarters after passage of the IIJA (from early 2022 through the end of 2024) rose from **\$288 billion to \$695 billion** (2.4x growth).
- Clean-energy manufacturing investments tied to actual construction of factories rose from less than \$5 billion in 2019 to almost **\$60 billion in 2023**, showing that firms were putting shovels in the ground.
- Those investments spread widely across the country. Fifteen states received at least \$10 billion in clean investment. And the construction workforce was **13 percent larger in January 2025** than it was in January 2021.

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## Labor Standards Turned Public Investment into Better Jobs

- Where these industrial investments drove demand for labor, wages rose. For example, weekly earnings for workers building power and communication lines **rose 43 percent**.
- Projects funded through the Department of Energy (DOE) had local prevailing wage requirements—**average hourly compensation, including benefits, was about \$68** on those projects, roughly 40 percent above average US construction compensation.
- DOE-funded projects also increased unionization rates: 54 percent of the agency's funding for major projects had project labor agreements, and 32 percent had neutrality commitments or collective bargaining agreements for operations.

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## Incentives, Not Just Mandates, Built a Larger Skilled Workforce

- Construction apprenticeships rose **14.2 percent** from 2022 to 2024—a marked increase compared with 2.2 percent growth in the previous two-year period. One reason for the growth was the IRA’s prevailing wage and apprenticeship incentives, which offered developers a larger tax credit if they hired registered apprentices. Companies responded because the financial benefit was clear.
- More apprenticeship slots mean **stronger training pipelines, more skilled workers** in the trades most needed for clean-energy build-out, and **more capacity to deliver future industrial investment** without running into the same labor shortages.

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## The Government Created Stronger Projects That Garnered Less Opposition Using Labor and Community Benefits Standards

- Of the funding awarded by the DOE for major projects, **74 percent went to projects with formal labor or community benefit agreements**. They included workforce training, union partnerships, local hiring, and direct commitments to the communities closest to the projects.
- Many companies receiving DOE funding reported positive and sometimes unanticipated benefits from these partnerships and **adapted their business practices** to include more upfront labor and community engagement for all of their projects.
- Labor and community benefit standards **were not barriers**. Instead, companies described how factors like permitting timelines, supply chains, and slow contracting created delays. In many cases, community benefit plans and labor agreements led to earlier planning and more streamlined engagement with nearby communities.

This kind of industrial strategy attracts private capital, expands productive capacity, and raises labor standards simultaneously. These outcomes should inspire policymakers to build on the parts of the strategy that delivered results and ensure the public sees what this policy delivered, who benefited, and what is worth defending and bolstering.



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