
*Worker at Arconic's Davenport Works Iowa manufacturing facility which manufactures aluminum products used in the Ford F-150.*

# Manufacturing Investments to Build Back Better

Serious action to address climate change and strengthen the U.S. economy for all requires substantial investment in rebuilding our manufacturing sector in ways that will deeply reduce emissions while building domestic supply chains and creating and protecting good jobs for workers and communities across the nation.

Provisions under consideration in the House and Senate in the Build Better Back (BBB) legislation are essential to getting this job done. We urge policymakers to invest in the expansion and retooling of domestic clean energy, vehicle and component manufacturing, the transformation of our industrial sector to reduce emissions and enhance competitiveness, as well as the necessary efforts to build out robust supply chains for critical clean technologies—all while building good jobs nationwide and investing in the communities that need it most.

All of the United State's major economic competitors, and particularly China, are making significant and strategic investments in the production and deployment of these technologies. If the U.S. fails to make commensurate strategic investments over the next decade as part of BBB legislation, America's manufacturing sector and its workers will fall even further behind in the most important global economic race of our time.

## Industrial Retooling for Emissions Reduction

Ensure additional investment towards an approximately $15 billion need to reduce climate pollution in emissions-intensive industries—such as cement, steel, and aluminum. These are among the fastest-growing sources of greenhouse gas emissions globally and the most prone to carbon leakage across national borders. **Reducing these emissions at scale requires $5 billion in new funding for far more rapid commercial-scale deployment of industrial emissions reduction technology** across the sector as well as strategic deployments at major economically critical facilities **and ensuring eligibility for industrial decarbonization projects in broader tax credit and supply chain programs.**

While the Infrastructure Investment and Jobs Act makes important investments in R&D and demonstration projects in certain industrial technologies, it does not make these essential—and complementary—investments to broadly deploy emissions-reducing technologies across the industry. Nor does the House BBB Act currently include any dedicated funding for this purpose. Specifically, the BBB package should:

- **Fund grants to deploy clean industrial technologies at scale –** Provide at least $5 billion in new funding for grants to aid companies in carrying out major carbon emissions and pollution-reducing upgrades at strategic energy-intensive manufacturing facilities, particularly those important to economic security or at risk of curtailment. Utilize the Clean Industrial Technology Act or other existing Department of Energy grant- or loan-making authorities.

- **Include industrial emissions reduction under 48C** – It is essential to ensure eligibility and funding under the 48C Manufacturing Tax Credit for projects that reduce emissions from energy-intensive industrial facilities, such as steel, cement, and aluminum production. Enabling more rapid deployment of industrial emissions reduction technology not only saves and creates jobs and makes domestic manufacturing more competitive, but achieves important additional carbon—and conventional—pollution reductions in a key emitting sector.

- Provide $250 million in funding to U.S. Environmental Protection Agency (EPA), as in the House BBB Act, to provide grant and technical assistance to manufacturers to develop and utilize Environmental Product Declarations (EPDs), which are essential for the accurate comparison of the embodied carbon in manufactured products and materials and

for developing the data infrastructure upon which a Buy Clean program may be built.

## Clean Technology Manufacturing & Supply Chains

Robust funding to spur domestic clean technology manufacturing is critical to ensure that communities across America see the jobs and economic benefits, from climate change to economic security. We strongly support critical incentives to promote clean technology manufacturing proposed by the House and Senate as part of the reconciliation package. **At least $25 billion in funding is needed across 48C and supply chain investment and production tax credits** that expand clean energy and technology manufacturing and onshore key supply chains. Specifically:

- **Expand and robustly fund 48C** – Pass a revitalized and expanded 48C Advanced Manufacturing tax credit to spur domestic manufacturing of essential clean energy and vehicle technologies. 48C should provide at least $20 billion in credits for clean technology manufacturing and industrial emissions reduction projects—supplemented by separate manufacturing ITC and PTC's to meet key supply chain needs.[1] A significant portion of these funds should be set aside for communities that need it most, including those that have experienced deindustrialization and the decline of energy jobs. Every $1 billion issued annually through a new 48C credit program could add $3.6 billion in GDP and create nearly 23,000 direct and induced jobs.[2]

- **Enact new supply chain manufacturing tax credits** – Adopt important new strategic manufacturing investment and production tax credits to onshore, establish, and expand domestic manufacturing supply chains for critical clean technologies—a multi-billion dollar need. While the 48C credit has been highly effective in making diverse, small- and medium-sized investments across clean technology sectors, there remain supply chains that warrant larger scale, targeted and sustained investments due to a lack of substantial domestic manufacturing capacity, stiff global competition, and recent disruptions. For instance, a solar manufacturing PTC will be critical for building out a responsibly sourced domestic solar supply chain in tandem with the president's bold climate goals. Major gaps also remain in the offshore wind and battery and battery materials supply chains.

## Automotive Manufacturing & Retooling Investment

Provide strong funding across committee jurisdictions to strengthen the domestic automotive supply chain, protect workers and communities, and build the electric vehicle fleet of the future here. **Approximately $10 billion in funding is needed for the ATVM and manufacturing conversion grants to retool automotive manufacturing to build the EV technology of the future in today's plants and communities.** A recent report shows that robust policy to retool existing production, expand domestic clean vehicle manufacturing in the U.S., and onshore EV and EV technology production is essential to protecting and creating domestic manufacturing jobs in the coming shift to EVs. [3]

- **Expand and fund the ATVM loan program** – Provide $5 billion in credit subsidy funding to the ATVM loan program. The $3 billion provided in the house package is essential to meet light-duty vehicle and component retooling needs and support expansion to medium- and heavy-duty vehicles; additional funding will be key to broadening the program's reach further as identified in IIJA or to sectors such as aviation. Uncapped loan authority as provided in both the house and IIJA packages is also essential. Past ATVM funding has supported the building or expansion of major facilities across eight states that today support tens of thousands of manufacturing jobs and hundreds of thousands of jobs collectively across the economy.[4]

- **Conversion and retooling grants** – The House BBA provided first-ever funding at $1 billion for the important manufacturing conversion and industrial retooling grants program, which is focused on reinvestment in existing manufacturing, particularly to retool facilities at risk of closure. Enhance funding to $5 billion for this important program which can be essential to protect jobs and networks of manufacturing as technology shifts.

- In addition, as discussed in the section above, ensure supply chain tax provisions support the establishment of a robust domestic EV technology supply chain with higher labor standards through new manufacturing tax credits to onshore and expand production of essential EV components, like batteries, cells, and cell materials.

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1 While the House BBB Act provided strong funding for the 48C program at $25B, it apportioned the funds in 10 equal tranches of $2.5B over 10 years, creating the risk that annual funds are insufficient to meet the needs of diverse industries covered by the program or shifting volume of applicants. Instead, greater portions of the funding should be made available in early years in tranches that are sufficiently large to meet the needs of the full range of potential applicants. In all cases 48C funds must remain available until expended, allowing for flexibility if demand is insufficient in any given year.

2 Third Way, *Manufacturing the Future of Clean Energy with 48C*. 2020. Available online: https://www.thirdway.org/memo/manufacturing-the-future-of-clean-energy-with-48c

3 Economic Policy Institute, *The stakes for workers in how policymakers manage the coming shift to all-electric vehicles*. 2021. Available online: https://www.epi.org/publication/ev-policy-workers/

4 BlueGreen Alliance, *Advanced Technology Vehicles Manufacturing Loans: Employment Impacts*. 2016. Available online: https://www.bluegreenalliance.org/wp-content/uploads/2016/11/ATVM-employment-impacts-and-potential-FINAL.pdf

## Support Manufacturing Supply Chains and Manufacturing-Centered Economic Development

In addition to investments that support clean technology manufacturing expansion and retooling directly, it is also critical to ensure that we expand and fund the broader programs that provide the economic, technical, and workforce infrastructure and support to strengthen advanced manufacturing ecosystems and communities.

- **Ensure robust funding for programs at Department of Commerce that provide the supporting infrastructure for manufacturing and manufacturing community development** including, notably: funding for the National Institute of Standards and Technology, the Hollings Manufacturing Extension Partnership, expansion of Manufacturing USA, and to the Economic Development Administration for support of economic growth clusters and other relevant economic development measures.

- **Enact and fund the new Build Back Better Critical Manufacturing Supply Chain Resilience initiative** at the Department of Commerce and ensure that demonstration and commercial-scale deployment of innovative industrial technology is eligible under the program.

## Essential Labor and Domestic Content Provisions in Energy Deployment Tax Credits

Ensure all clean energy deployment tax credits include labor and domestic content standards, such as laid out in the Build Back Better Act, that supports the retention and growth of domestic manufacturing and high-quality jobs.

- **Update the 30D/36C EV tax credit to support the growth of domestic manufacturing and good jobs** – Include the expanded and updated 30D (now 36C) consumer EV tax credit—as per the broadly supported provisions in the House BBB Act—with key added benefits for vehicles built in facilities where workers have a collective bargaining agreement and a phased-in requirement that the vehicles be built in the U.S. Enhance accessibility by including a cap on the price of vehicles eligible for the 36C credit, point of sale availability, and a new used EV credit. Extend the 30B and 30C tax credits with labor standards and domestic manufacturing safeguards.

- **Extend existing and create new clean energy tax credits** – Incentivize clean energy deployment like solar, onshore and offshore wind, battery storage, direct air capture (DAC), carbon capture, utilization, and storage (CCUS), and transmission/grid development. These credits should be coupled with high-road labor standards and domestic content requirements to ensure high-quality jobs and a robust domestic supply chain. The House BBB creates a new "bonus" tax credit for clean energy projects that utilize domestically produced iron and steel and manufactured goods, and making the continued receipt of direct pay of the credits for these projects contingent on meeting these Buy America standards.