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 included in the House passed Build Better Back Act (BBBA) legislation are essential to getting this job done. The bill makes an historic investment 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. We urge the Senate to pass it.

All of the United States' major economic competitors—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 BBBA 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

The bill makes key investments 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. The bill takes action to reduce these emissions at scale through new funding for far more rapid commercial-scale deployment of industrial emissions reduction technology across the sector and by enhancing funding for industrial decarbonization projects in broader tax credit and supply chain programs.

While the Infrastructure Investment and Jobs Act (IIJA) 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 emis sions-reducing technologies across the industry. Together these provisions could achieve an additional 100 million metric tons of carbon emission reductions, while helping secure jobs and make basic industries in the U.S. the cleanest and most competitive in the world. The BBBA will:

- **Provide funding to deploy clean industrial technologies at scale:** Provides at least $4 billion in new funding to aid companies in carrying out major carbon emissions and pollution-reducing upgrades at strategic energy-intensive manufacturing facilities.

- **Fund rapid industrial emissions reduction through key tax credits:** It is essential to enable more rapid deployment of a wide range of industrial emissions reduction technology that 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. The bill increases funding for industrial carbon capture and sequestration (CCS) under the 45Q tax credit and extends industrial energy efficiency tax credits. Funding for projects that reduce emissions from energy-intensive industrial facilities—such as steel, cement, and aluminum production. under a robustly funded 48C Manufacturing Tax Credit can also be beneficial.

- Provide $250 million in funding to U.S. Environmental Protection Agency (EPA) 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

The BBBA includes robust funding to spur domestic clean technology manufacturing which is critical to ensure that communities across America see the jobs and economic benefits from addressing climate change. We strongly support critical incentives to promote clean technology manufacturing including:

$25 billion in funding for 48C together with new supply chain production tax credits that expand clean energy and technology manufacturing and onshore key supply chains. Specifically:

- **Vital funding for an expanded and targeted 48C** – The bill includes a revitalized and expanded 48C Advanced Manufacturing tax credit to spur domestic manufacturing of essential clean energy and vehicle technologies. 48C provides $25 billion in credits for a wide range of clean technology manufacturing projects.[1] $8 billion dollars of these funds are 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]

- **Enactment of new clean technology manufacturing tax credits** – The bill adopts important new strategic manufacturing production tax credits to onshore, establish, and expand domestic manufacturing supply chains for critical wind and solar 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, the solar manufacturing production tax credit (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 supply chains. The bill also creates a new manufacturing investment tax credit to establish and expand domestic semiconductor manufacturing.

Automotive Manufacturing & Retooling Investment

The bill provides strong funding across committee jurisdictions to strengthen the domestic automotive supply chain, protect workers and communities, and build the electric vehicle (EV) fleet of the future here. That includes $new funding for the Advanced Technology Vehicles Manufacturing (ATVM) loan program and first-ever funding for manufacturing conversion grants—together enabling over $20B in investments to retool automotive manufacturing to build the EV technology of the future in existing 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] The BBBA will:

- **Expand the ATVM loan program:** Provides $3 billion in credit subsidy funding to the ATVM loan program, which is essential to meet light-duty vehicle and component retooling needs and support expansion to medium- and heavy-duty vehicles and their supply chains. Uncapped loan authority as provided in both the IIJA and BBBA packages is also essential. Together these provisions enable at least $20B in new loans in these sectors.. 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 BBBA provides first-ever funding at $3.5 billion for the important manufacturing conversion and industrial retooling grants program, which is focused on reinvestment in existing factories, particularly to retool facilities at risk of closure. This important program can play a critical role in protecting jobs and rebuilding local networks of manufacturing as technology shifts.

- **In addition**, as discussed in the sections above and below, the bill includes critical supply chain manufacturing and consumer tax provisions that support the establishment of a robust domestic EV technology supply chain with high labor

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 appli- cants. 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.bluegreenalli- ance.org/wp-content/uploads/2016/11/ATVM-employment-impacts-and-potential-FINAL.pdf

standards and help onshore and expand production of EV's and essential EV components, like batteries, cells, and cell materials.

Supports 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. The bill:

- **Ensures 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 and to the Economic Development Administration for support of economic growth clusters and other key economic development measures.

- **Funds the new Build Back Better Critical Manufacturing Supply Chain Resilience initiative** at the Department of Commerce—providing $5B to monitor supply chains and demonstrate and deploy technological advances including innovative industrial technology to improve supply chain resilience.

Essential Labor and Domestic Content Provisions in Energy Deployment Tax Credits

The bill ensures that all clean energy deployment tax credits include labor and domestic content standards and support the retention and growth of domestic manufacturing and high-quality jobs.

- **Updates the 30D/36C/36D EV tax credit to support the growth of domestic manufacturing and good jobs:** – Expands and updates the 30D (now 36D in latest Senate text) consumer EV tax credit with key, broadly supported, 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. The updated credit is also better targeted and more cost effective—including a cap on the price of vehicles eligible for the 36D credit, point of sale availability, and a new used EV credit.

- **Extends existing and creates new clean energy tax credits with high-road standards:** Incentivizes 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 – and couples these credits with high-road labor standards and domestic content requirements to ensure high-quality jobs and a robust domestic supply chain. The bill 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.

Manufacturing and Industrial facilities – Selected industries