BLUEGREEN ALLIANCE®

We Can Revitalize Aluminum Manufacturing with New Climate Investments

By revitalizing clean U.S. aluminum manufacturing, we can create good jobs for hard-hit workers and communities, cut a major source of climate pollution, support clean air and community health, and secure a reliable supply of an essential material for clean energy.

Part of the solution lies in the climate and jobs investments of the Inflation Reduction Act, signed into law in 2022. This historic legislation offers more than $50 billion in investments to support clean manufacturing, which could help to spur growth in clean U.S. aluminum production.[1]

WHY ALUMINUM?

Aluminum—the second most used metal in the world—is a fundamental material for our economy, forming the backbone of everything from bridges to smart phones to soda cans.[2] Aluminum also is an integral ingredient for achieving our climate, jobs, and national security goals. **As a primary component of solar panels, power lines, electric vehicles, and other clean technologies, aluminum is a building block of our clean energy solutions.**[3] As we take on climate change, we need to produce more aluminum to build a clean economy.

In the early 1990s, 23 aluminum smelters in the United States provided a stable supply of aluminum and good jobs. After decades of decline, today there are only five U.S. smelters in operation.[4] As a result, tens of thousands of aluminum workers have lost their jobs.[5] The job loss has been particularly painful because aluminum manufacturing jobs tend to offer better wages, benefits, and access to unions than other available jobs, particularly for workers without a college degree.[6,7] Many displaced aluminum workers have had to settle for lower-paying jobs, while their communities have had to grapple with the economic fallout of shuttered smelters.

The decline of U.S. aluminum manufacturing not only eliminated good jobs, but also increased climate pollution, as the world's aluminum started to come from countries with lower environmental and labor standards and higher emissions. As companies shut down their U.S. aluminum smelters, smelters in China and India opened to take their place.[8] Producing an average ton of aluminum in China causes 60% more climate pollution than in the U.S., while India's aluminum industry is about twice as polluting as the U.S. industry.[9] Due to outsourcing, today about two-thirds of the world's aluminum is made in countries with more polluting processes than in the United States.[10] As we produce more aluminum for solar panels and electric vehicles to achieve our climate goals, we cannot afford to depend on highly-polluting aluminum production overseas that moves us in exactly the opposite direction.

HOW CAN NEW CLIMATE INVESTMENTS REVITALIZE ALUMINUM MANUFACTURING?

The Inflation Reduction Act includes billions of dollars for new grants, loans, and tax credits that could help existing U.S. aluminum smelters become cleaner and more globally competitive by boosting efficiency and slashing pollution. New investments also could help to reopen recently closed smelters from Washington

state to Kentucky by cutting production costs and providing an affordable supply of clean electricity. Meanwhile, the law will boost aluminum demand by driving growth in solar power, electric vehicles, and efficient buildings that use clean U.S. aluminum. Below are specific Inflation Reduction Act investments that could help revitalize clean aluminum manufacturing.

SUPPLY-SIDE INVESTMENTS

- **A new manufacturing production tax credit:** The law establishes a new manufacturing production tax credit worth more than $30 billion to support expanded manufacturing of solar and wind components, batteries, and critical materials like high-purity aluminum. Manufacturers in these sectors have a "direct pay" option that will allow them to take advantage of the new tax credit for five years without relying on Wall Street financing that is typically unavailable for manufacturing investments. By offsetting production costs, the new tax credit could help certain idled U.S. aluminum smelters to restart operations.

- **An expanded tax credit for technology to reduce industrial emissions:** The law provides $10 billion for the 48C tax credit and makes the tax credit available—for the first time—for manufacturers to install equipment that achieves an at least 20% reduction in climate pollution. Aluminum smelters could use this tax credit to cover the cost of technology that reduces emissions, boosts efficiency, and increases competitiveness.

- **Grants and loans for emissions-reducing upgrades:** The law creates a new, nearly $6 billion program at the U.S. Department of Energy to help manufacturers carry out emissions-reducing upgrades at aluminum, steel, cement, and other energy-intensive industrial facilities. The statute specifically names aluminum as a target sector for these investments, which will be distributed over the next five years. The financial support could include grants, loans, or rebates for commercial-scale improvements that reduce emissions and benefit local communities.

- **Funding for the Defense Production Act:** The law includes $500 million for the Defense Production Act—a versatile policy toolbox that the Biden administration has started to use to support manufacturing growth for critical clean energy goods.[11] The Biden administration could use new Defense Production Act funding to support clean aluminum manufacturing. The administration could use the funds, for example, to extend loans to aluminum manufacturers, offer discounted clean electricity prices to aluminum smelters, or install emissions-reducing technology at smelters.

DEMAND-SIDE INVESTMENTS

- **Domestic content bonuses for clean energy tax credits:** The law includes four clean electricity tax credits worth more than $127 billion, each of which establishes—for the first time—a bonus 10% tax credit for projects that use domestically manufactured materials and parts. To qualify for the domestic content bonus, clean electricity developers must use domestically made iron and steel and manufactured components in which U.S. production accounts for roughly half of the value. The latter provision could help to boost demand for U.S. manufacturing of the aluminum used in solar panels, wind turbines, batteries, and other clean energy technologies. Non-profit and government entities also must meet these domestic content requirements to take full advantage of a "direct pay" option that makes the tax credits more accessible.

If we get the details right, these investments could be a game-changer for producing clean aluminum to feed our growing clean economy. We now have the opportunity to reverse the decline of U.S. aluminum manufacturing so as to offer good jobs to displaced workers, revitalize industrial communities harmed by outsourcing and pollution, and strengthen our fight to secure a livable climate.

ENDNOTES

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