

Opportunities in Infrastructure for Industrial Decarbonization

Congress has a significant opportunity to drive deep decarbonization of industry and building materials through federal infrastructure legislation. Through supply-side and demand-side interventions like tax credits and Buy Clean policies, Congress can address technology gaps, create market demand, and facilitate at-scale deployment of the breakthrough technologies and solutions we need to get our industrial sector to net-zero emissions and ultimately reach our economy-wide net-zero goals.

The following policies, if included in federal infrastructure legislation, would avoid millions of tons of greenhouse gas emissions and create markets for low-GHG solutions, while boosting domestic manufacturing and supporting U.S. industrial competitiveness.

Buy Clean

PROCUREMENT POLICIES

Buy Clean is a set of policy instruments aimed at leveraging the power of government purchasing to create demand for low-GHG materials.

As Congress reinvests in America's highways, bridges, and other infrastructure, it can create market demand for low-carbon products and avoid millions of tons of emissions otherwise associated with public works projects through Buy Clean policies.

Construction materials like cement and steel are major contributors to climate change. Cement alone accounts for approximately 8 percent of global emissions, and the U.S. federal government is among its largest purchasers. In its next infrastructure package, Congress can pass a Buy Clean policy that directs federal agencies to purchase low-carbon cement, steel, and other materials for public works projects. This would help incentivize disclosure of environmental impact data across a range of industrial products, create a market for low-GHG infrastructure and building materials, and avoid emissions.



Importantly, Buy Clean would support American industry by differentiating U.S. manufacturers and suppliers already meeting environmental standards and taking steps on their own to reduce their emissions and calculate the embodied carbon in their products.

And since construction materials are a small share of annual spending on public construction, Buy Clean can meaningfully contribute to the decarbonization of industry and buildings at a fairly small cost to taxpayers.

There are several Buy Clean-related proposals under consideration in Congress:

- **[Buy Clean Transparency Act of 2019](#)**: Requires transparency in reporting the GHG impacts of products procured by federal contracting agencies.
- **[CLEAN Future Act: Title V, Subtitle C – Federal Buy Clean Program](#)**
 - Enhances the transparency, quality, and availability of data to calculate embodied emissions of commonly procured infrastructure products and materials.
 - Establishes Buy Clean standards for federally funded infrastructure projects.
 - Creates a voluntary labeling program to identify and promote products with significantly lower embodied emissions than comparable products.
- **[Trillion Trees Act: Section 301 – Sustainable Building and Residence Credit](#)**
 - Establishes a transferrable credit to promote the use of building materials that store carbon.
 - Directs the Secretary of Energy to develop a sustainability score for both commercial and residential buildings, accounting for the energy required to produce and deliver construction materials, the energy required to operate the building, and the amount of carbon stored in any domestically produced components of the building.
 - Directs the Secretary of Energy to establish a carbon storage certificate, which will certify to the taxpayer the amount of carbon stored in a building or residence.

Learn more about Buy Clean and procurement policies from Breakthrough Energy and its partners and allies:

- **Breakthrough Energy**: [Federal Climate Policy Playbook](#)
- **Carbon Leadership Forum**: [Embodied Carbon Policy Toolkit](#)
- **Third Way**: [Smarter Procurement: Federal Construction Spending is a Huge Opportunity to Advance National Goals](#)
- **NRDC**: [Smart Procurement Policies Can Help Decarbonize Concrete](#)
- **ClimateWorks**: [Achieving a sustainable U.S. infrastructure bill: New pathways to fully decarbonizing cement and concrete](#); [Build Clean: Industrial Policy for Climate and Justice](#)
- **USW**: [Testimony of International VP At Large Roxanne Brown for the House E&W Appropriations Subcommittee hearing “Domestic Manufacturing for a Clean Energy Future”](#)



Incentives for Clean Manufacturing

TAX POLICY

Tax incentives can boost the supply and deployment of cleaner industrial products and processes.

Low-GHG solutions for heavy industrial products and processes exist today, thanks in no small part to Congressional support for research and development. However, to achieve net-zero emissions across the industrial sector, we need to deploy these solutions at scale while continuing to improve them and innovate others.

Increasing funding for research, development, and demonstration is an important place to start. Congress can also extend and enhance existing tax credits or create new ones to encourage facilities to manufacture emerging technologies and low-GHG products and to adopt practices to reduce their carbon intensity. This includes tax credits for low-GHG feedstocks like hydrogen, clean industrial processes, low-carbon building materials, industrial efficiency, and carbon capture, utilization, and storage.

Supporting domestic manufacturing and use of low-GHG products and processes is also critical for maintaining U.S. competitiveness. If the United States cultivates industrial clusters that include both R&D and manufacturing facilities, the likelihood of retaining domestic supply chains and fostering U.S. competitiveness rises.

The American Jobs in Energy Manufacturing Act is one example of legislation that would accelerate clean product manufacturing and reduce industrial process emissions.

[American Jobs in Energy Manufacturing Act of 2021](#): Extends and modifies the 48C tax credit to boost investment in clean energy manufacturing, recycling, and industrial facilities. This bill would invest in U.S. manufacturing and industrial facilities to produce or recycle clean energy products. It would also upgrade existing industrial facilities to reduce their process emissions.

Learn more about clean manufacturing incentives from Breakthrough Energy's partners:

- **Third Way:** [Manufacturing the Future of Clean Energy with 48C](#)
- **BlueGreen Alliance:** [Manufacturing Agenda: A National Blueprint for Clean Technology Manufacturing Leadership and Industrial Transformation](#)
- **CRES Forum:** [Issue Brief: Reducing Industrial Emissions](#)