

How will H.R. 5376 help the United States Build Back Better?

A summary of Build Back Better Act measures that seek to drive economic development along a low-carbon trajectory

Complementing the bipartisan infrastructure plan signed into law on November 15, 2021, the Build Back Better Act (H.R. 5376) will support economic recovery by investing in a range of social programs¹ while accelerating efforts to transform energy use and agricultural practices to reduce climate pollution by 50-52% by 2030 from 2005 levels. H.R. 5376 passed the House of Representatives on November 19, 2021. The bill is expected to be taken up by the Senate in December.

Of the \$1.7 trillion total spending—the vast majority paid for by revenue-raising measures²—the Act directs an historic \$555 billion (roughly 32 percent of the bill) to climate change and clean energy. This includes a broad set of programs and tax incentives to adopt low- and zero-carbon solutions and enhance resilience across major sectors of the economy. In total, the White House estimates these programs will reduce emissions by more than one billion metric tons (1 GT) in 2030 compared to business as usual. The bill supports jobs and economic growth, providing extra incentives to produce clean energy technologies in the U.S. The bill's clean energy provisions include important protections for American workers including bonus incentives for domestic content and prevailing wage levels. It also directs 40 percent of the benefits of investment to low-income and disadvantaged communities. Additional incentives encourage investment in energy communities needing support for the transition away from fossil fuels.

Highlights of the climate and energy programs are provided below. Key measures are loosely organized by sector, recognizing that some innovative technologies will support greenhouse gas emissions reductions in more than one sector.

¹ New spending will improve the affordability of childcare, healthcare, housing and education and improve services in underserved areas. Together, these programs will help jump-start an economy still recovering from the effects of the global pandemic and ensure access to opportunities for more Americans.

² The Congressional Budget Office and Treasury Department have different assessments, but both find the programs are fully or largely paid for by new revenues and improved enforcement.



Transportation and Fuels

The BBBA invests in the technologies needed to fully decarbonize the transportation sector. It takes an even-handed approach recognizing the different solutions needed for light- and heavy-duty vehicles. Accordingly, the BBBA supports both electrification and low- and zero-carbon fuels by driving investments in infrastructure and encouraging consumers to purchase both electric and zero-carbon-fueled vehicles.

The BBBA offers tax credits for production of clean hydrogen (Sec. 136204). The tax credits support the production of hydrogen produced from zero-carbon electricity and from fossil fuel-based facilities that use carbon capture, utilization and storage. This will help build up the domestic hydrogen supply and demonstrate to fuel users in hard-to-decarbonize sectors—including heavy-duty trucks and marine vessels—that hydrogen offers a viable option for decarbonization.

- **The BBBA supports the uptake of electric- and hydrogen-fueled zero-emission vehicles.** This includes support for infrastructure and replacement costs to support shifts to zero-emission heavy-duty vehicles, including both electric and hydrogen-fueled vehicles (Sec. 30101). Additional grants for the purchase of ZEV equipment are targeted to ports, especially those located in areas that do not meet the national air quality standards (Sec. 30102). The bill also supports ZEV charging and fueling equipment benefitting low-income and disadvantaged communities (Sec. 30103). The bill offers tax credits to individuals for new (Sec. 136401) and used (Sec. 136402) electric vehicles and fuel cell vehicles. Commercial electric vehicles (Sec. 136403) and refueling properties (Sec. 136405) are also eligible for incentives. To reduce health impacts, the bill dedicates funds to reduce diesel emissions from goods movement facilities and vehicles in low-income and disadvantaged communities (Sec. 30105).



Oil and Gas Methane Emissions

Even as the BBBA encourages clean alternatives to fossil fuels, the Act will also encourage oil and gas operators to reduce methane emissions from their operations. **The BBBA establishes a waste charge on methane emissions from oil and gas operations that exceed a good practice threshold (Sec. 30114).** It also provides funds for financial and technical assistance to reduce methane and mitigate impacts to affected low-income and disadvantaged communities (Sec. 30114). The Act also supports enhanced monitoring of methane pollution (Sec. 30106).



Cross-Cutting: Carbon Management

The BBBA extends and improves the 45Q tax credits for carbon sequestration to accelerate deployment of carbon capture, removal, and storage. Lower thresholds will make many more facilities eligible for 45Q credits. Direct pay for the full value of the tax credit over the 12 years to claim the credit will dramatically improve the efficiency of the credit. An extended deadline to commence construction (projects now have until December 31, 2031) will unlock more investments into projects and result in more emissions reductions. Higher credit values--the bill increases the 45Q credit value to \$85 per metric ton for industrial facilities and power plants that store captured CO₂ in saline geologic formations, and boosts credit values for Direct Air Capture projects to \$180 per metric ton--will make the program much more attractive to project developers. In total, these changes will improve the effectiveness of 45Q in driving early investments critical to reaching net zero by 2050 in the U.S. and globally (Sec. 136106).



Electricity

The BBBA takes an “all-of-the-above” approach to technologies aimed at reducing carbon dioxide emissions from the power sector 80 percent by 2030 and prepping for net-zero goals. The Act includes tax incentives to drive deployment of renewable energy and transmission, extend operation of existing zero-carbon nuclear power plants and encourage early commercial-scale investments in carbon management technologies (described separately below). It also supports research and development aimed at readying new technologies such as nuclear fusion.

- **The BBA extends and modifies credits for electricity produced from certain renewable resources placed in service before 2027**, providing a bonus for facilities located in an energy community or made with domestic steel or iron, where applicable (Sec. 136101). Moreover, starting in 2027, new clean energy resources with emissions rates of zero or less—including renewable energy and sources that capture CO₂ emissions—are eligible for a Clean Electricity Production Credit (Sec. 136801). Certain renewable energy, storage, and microgrid technologies that begin construction before 2027 are eligible for investment tax credits (Sec. 136102) and starting in 2027 a broader set of zero-emitting technologies and grid improvement properties are eligible (Sec. 136802). An increase in credit value is provided for community-scale (<5MW) solar and wind facilities in low-income communities (Sec. 136103).
- **The BBBA offers a tax credit for investments in electric transmission property (Sec. 136105).** Incentives and additional funds support new and upgraded transmission lines and grid interconnection aimed at improving the resilience of the electric grid and integrating clean energy facilities (Sec. 30451). Funds also support siting of interstate transmission lines (Sec. 30452), and study and planning of transmission for offshore wind (Sec. 30454).

The BBBA offers tax credits for power produced from existing zero-emission nuclear plants (Sec. 136108). Tax credits are provided through 2027 of up to 1.5 cents/kWh so long as prevailing wage requirements are met and depending on whether the nuclear plant needs additional support based on a formula that considers the price it receives for power, capacity, and ancillary services as well as available state incentives. These new tax credits are critical to ensuring that important sources of zero-carbon energy continue to operate, preventing substantial increases in greenhouse gases that would result from nuclear plant retirements.

- The BBBA also supports important nuclear research and development, including research on nuclear fusion and low-dose radiation (Sec. 90001). It also supports the availability of domestic high-assay low-enriched uranium—a fuel critical to advanced nuclear technology (Sec. 90002).



Industry

The core BBBA industrial package includes tax incentives critical for decarbonizing heavy industry such as iron, steel, and cement, in addition to dedicated advanced manufacturing tax credits. In particular, the carbon management tax incentives encourage participation by industrial sources by applying a lower eligibility threshold than is required for electric power plants and by offering flexibility on the share of carbon oxides that must be captured (Sec. 136106).

The BBBA provides funds to purchase, install, and implement advanced industrial technologies that reduce greenhouse gases. Funds are provided for equipment that improves industrial efficiency, facilitates electrification and uptake of low- and zero-carbon fuels and process heating systems, and adopts carbon capture, utilization and storage (Sec. 30471). Moreover, an extension of the advanced energy project credit supports production of advanced energy technologies, including dedicated funds for production of such technologies in automotive and energy communities (Sec. 136501). Tax incentives are also provided to support U.S. production of semiconductors (Sec. 136503), zero-emission vehicles (Sec. 30442-30443) and solar and wind energy components (Sec. 136504).



Buildings

The BBBA includes extensive measures aimed at improving building efficiency and encouraging use of solar and other distributed renewable energy (Sec. 30411). These measures include enhancement and expansion of existing home energy and efficiency tax credits (Sec. 136301-136304), as well as the creation of a new, electrification-focused rebate program (Sec. 30412). Certain measures are targeted to low-income communities and affordable housing. Assistance is also provided to states to upgrade energy codes consistent with international standards, including zero-energy standards (Sec. 30422).



Agriculture

The BBBA supports a range of measures reducing emissions and enhancing sequestration in agriculture. This includes support for projects aimed at reducing methane emissions from ruminants and projects that improve soil carbon or reduce greenhouse gases or capture or sequester greenhouse gases associated with agricultural production (Sec. 13002). The BBBA provides technical assistance, establishes a system to quantify and monitor carbon sequestration (Sec. 15003), and supports agricultural research on climate change (Sec. 13001). In addition, the Act will help rural communities tap into opportunities to invest in renewable energy, energy storage and energy efficiency, among other technologies, through targeted grants and loans through the Department of Agriculture (for example, Sec. 12003 and 12004).



Forestry

The BBBA supports a range of measures that aim to prevent forest fires, increase carbon storage, protect older and mature forests (Sec. 11001, 11002), support land purchases for sequestration and resilience (Sec. 11003), and improve carbon monitoring and study of the lifecycle of wood products (Sec. 11002).



Crosscutting Actions

A total of \$5 billion is provided to EPA to administer grants to states, municipalities and tribes for air pollution planning and implementation (30116). Among other criteria, these competitive grant programs will prioritize projects based on total greenhouse gas pollution reduced, especially in low-income and disadvantaged communities, and whether the emissions reductions adhere to robust accounting procedures (30116).

The BBBA ramps up funding for air pollution monitoring (Sec. 30106). This includes new funding for monitoring methane emissions—a gas that might otherwise go unnoticed because it is odorless and invisible to the naked eye. Additional funds are provided for fenceline monitoring at industrial facilities, sensors to detect pollution sources in low-income and disadvantaged communities, and for expanding the existing air quality monitoring network.

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