A Climate Analysis of President Biden's Build Back Better Agenda

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President Biden's bipartisan <u>Infrastructure Investment and Jobs Act</u> (IIJA) and H.R. 5376, the <u>Build Back Better Act</u> (BBBA) as passed by the U.S. House of Representatives on November 19, 2021, would collectively invest more than \$600 billion in climate action, clean energy jobs, and environmental justice. Together, they constitute the largest-ever U.S. investment in climate, treating the climate crisis as the national emergency it is and envisioning a country in which climate action is woven into the fabric of our everyday lives.

While the bipartisan IIJA contains important programs to reduce emissions and clean up toxic pollution, it is not a climate bill. Investments in conventional transportation infrastructure such as bridges, roads, and ports are the principal focus of the bipartisan bill, not the decarbonization of the economy. Its passage alone cannot deliver on President Biden's ambitious goal to reduce U.S. carbon emissions by 50 percent by 2035. The Build Back Better Act's passage is necessary to truly unlock the vision of a 100 percent clean energy economy. The largest single investment in climate in U.S. history, the Build Back Better Act provides \$555 billion in direct federal spending to buy electric vehicles, install solar panels, retrofit buildings, and manufacture wind turbines and other clean-energy equipment.

Together, the Infrastructure Investment and Jobs Act, also known as the "Bipartisan Infrastructure Framework," and the House-passed Build Back Better Act would cut more than a gigaton of greenhouse gas emissions by 2030. This amount is 38-40 percent lower than 2005 levels, keeping the U.S. on a credible path to achieving its emissions reduction target by 2050. Passing the Build Back Better agenda is essential to achieving President Biden's goal of creating good-paying union jobs, conserving our natural resources, and building a healthy, more equitable clean energy future.

Conservation and Climate Resilience

Last year alone, the United States faced 22 <u>extreme weather</u> and climate-related disaster events with losses exceeding \$1 billion each — a cumulative price tag of nearly \$100 billion. The Build Back Better agenda collectively allocates more than

\$150 billion to climate resiliency programs that conserve our natural resources, promote biodiversity, harden critical infrastructure, and prepare communities for extreme weather events including wildfires, droughts, and hurricanes. Together, both bills would bring us closer to achieving the America the Beautiful Initiative, a national goal of conserving at least 30 percent of U.S. lands and oceans by 2030 commonly referred to as "30 by 30." The BBBA also unlocks \$15 billion to establish a Civilian Climate Corps to create 300,000 good-paying green jobs over the next ten years to put Americans back to work serving their communities and tackling the climate crisis. The Civilian Climate Corps — carried out through AmeriCorps — would employ youths, veterans, seniors, and others to clean up polluted communities, conserve our public lands, and help transition to a 100 percent clean energy economy.

CONSERVATION AND CLIMATE RESILIENCE

Build Back Better Act

Civilian Climate Corps: \$15 billion to establish a Civilian Climate Corps to create 300,000 good-paying green jobs over the next ten years.

Wildfire: \$15 billion for reducing the risk of wildfires, primarily prescribed burns in the wildland-urban interface.

Healthy Forests: \$13 billion for reforestation, protection of old-growth and watersheds, and conserving habitats for threatened species in public forests. An additional \$2.5 billion for urban forestry projects to close the nature gap and ensure all communities have equitable tree coverage.

Coastal Restoration: \$6 billion to restore coastal ecosystems, mitigate climate change, protect coastal communities, and improve fish and wildlife habitat.

Biodiversity: \$200 million for the Endangered Species Act and \$250 million for wildlife refuges and state wildlife management areas.

Regenerative Agriculture: \$4 billion for the Conservation Stewardship Program to help farmers make habitats for wildlife, reduce the need for synthetic fertilizer and pesticides, and make crops more resilient to extreme weather. The BBB Act also enables farmers to switch to renewable energy and

Infrastructure Investment and Jobs Act

Transportation Infrastructure: \$8 billion to establish the PROTECT Grant Program to improve the resiliency of transportation infrastructure to extreme weather.

Wildfire: Nearly \$3.4 billion to improve areas at high risk for wildfires and support wildland firefighting.

Healthy Forests: \$2.1 billion for forest ecosystem restoration.

Drought: \$8.3 billion to secure critical water supplies in the drought-stricken West through investments in aging infrastructure, water storage, and water recycling while conserving healthy rivers, and fish and wildlife habitat.

Ecosystem Restoration: \$2.13 billion to restore the ecological health of federal, state, and private lands. IIJA also includes \$1.5 billion for EPA's geographic programs aimed at conserving ecosystems in the Great Lakes, the Chesapeake Bay, the Puget Sound, the Delaware River Basin, and the Klamath River Basin.

Floods and Other Disasters: \$3.5 billion for risk reduction investments under the flood insurance program, \$1 billion under a FEMA pre-disaster risk reduction program, and \$500 million to establish a resilience revolving loan fund, plus financial and

machinery that use less energy.

Urban Parks: \$100 million for the Outdoor Recreation Legacy Partnership (ORLP) program to create and revitalize local parks in urban areas and begin to address inequities in access to nature by providing resources to ensure under-resourced communities have close-to-home parks.

Healthy, climate-friendly school food: \$250 million to establish a new grants program for school districts to serve healthier, low-carbon menus with foods like fruits, vegetables, whole grains, legumes, and soy.

technical assistance to states and communities to reduce risk of flood damages.

Wildlife Crossings: \$350 million to municipalities, states, and tribes for the construction of bridges, tunnels, culverts, fencing, and other infrastructure to allow wildlife safe passage under or over roads.

Environmental Justice

Low-income communities and communities of color are <u>disproportionately exposed</u> to toxic pollution from toxic dumps, power plants, and other industrial facilities concentrated in their neighborhoods. The Build Back Better agenda makes complementary investments in a wide range of program areas including clean transportation, the replacement of lead pipes, and tribal infrastructure. Moreover, the BBBA unlocks an additional \$9 billion for the nationwide replacement of lead service lines, \$65 billion for affordable housing, and \$5 billion to establish an environmental and climate justice block grant program.

One key aspect of the BBBA is the inclusion of \$29 billion for the establishment of a Greenhouse Gas Reduction Fund. Modeled after the success of state and local green banks, the Greenhouse Gas Reduction Fund is designed to provide low-cost financing for clean energy infrastructure projects around the country. The Fund also includes a guarantee that at least 40 percent of the benefits of these investments will flow to disadvantaged communities.

There is still room for improvement, however. Additional investments in environmental justice would better align spending with President Biden's <u>Justice40</u> <u>Initiative</u>, a government-wide pledge to commit 40 percent of federal investments in clean energy and climate infrastructure to disadvantaged communities.

ENVIRONMENTAL JUSTICE		
Build Back Better Act	Infrastructure Investment and Jobs Act	
Lead Pipe Remediation: \$9 billion for nationwide lead service line reduction and an additional \$970 million for rural water	Lead Pipe Remediation: \$15 billion for the nationwide replacement of lead service lines and reduction of lead in drinking water	

and waste-water programs.

Environmental Justice Block Grants: \$5 billion to establish an EPA grant program to reduce pollution and climate threats in low-income communities and communities of color. These grants would provide up to \$500,000 for 1 to 3 years to support community-led priorities to reduce pollution and improve public health and climate readiness.

Affordable and Sustainable Housing: \$65 billion for investment in new or refurbished public housing and \$2 billion for energy efficiency projects in public housing.

Clean Transportation: \$5 billion to replace heavy-duty vehicles – such as garbage trucks and school buses – with zero-emission vehicles, and \$340 million for diesel emissions reductions.

Tribal Infrastructure: \$500 million for tribal and Native Hawaiian climate resilience, \$300 million for electrification, \$200 million in DOE loan guarantees for tribal energy, and \$1.35 billion water infrastructure.

Port Infrastructure: \$3.5 billion to reduce air pollution at ports and surrounding communities. Grants support the purchase and installation of zero-emission equipment and technology, as well as the development of climate action plans.

systems.

Superfund: \$5 billion to clean up EPA-designated brownfield and superfund sites, and \$14.45 billion in revenue from reinstating the superfund excise tax on petrochemicals that expired in 1995.

Clean School Bus Program: \$2.5 billion to invest in zero-emission buses and \$2.5 billion for low emission buses.

PFAS cleanup: \$10 billion to clean up toxic "forever chemicals" known as PFAS.

Tribal Infrastructure: \$3.5 billion for water infrastructure and resiliency in Tribal communities.

Port Infrastructure: \$2.5 billion to invest in port infrastructure, including initiatives to reduce pollution by electrifying more diesel-burning equipment like tug boats, cranes, and freight trucks.

Electric Vehicles

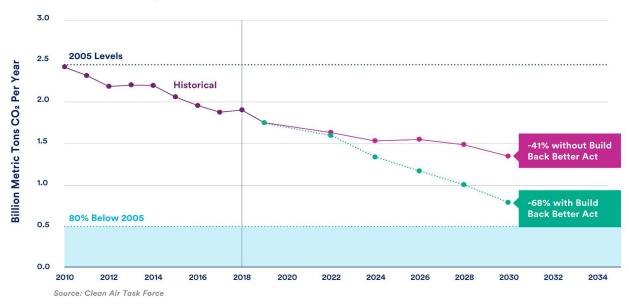
Decarbonizing the transportation sector, which is responsible for approximately 30 percent of all domestic carbon emissions, is essential to achieving overall net-zero emissions by 2050. The Build Back Better Agenda contains the largest investment in electric vehicles (EV) and charging infrastructure in U.S. history: IIJA contains \$7.5 billion in funding to build a nationwide EV charging network while BBBA unlocks \$32 billion in refundable tax incentives to encourage their adoption. Conversely, BBBA unlocks \$32 billion in direct tax credits to incentivize the purchase of EVs by both individual consumers and commercial enterprises. Individuals are eligible for up to \$12,500 in credit for vehicles built in the U.S. using union labor. The BBBA also unlocks \$2.57 billion for the United States Postal Service (USPS) to electrify 70 percent of its delivery fleet by the end of the decade. As a whole, the Build Back

Better agenda is <u>projected</u> to lower transportation sector emissions by 27 percent compared to 2005 levels.

ELECTRIC VEHICLES	
Build Back Better Act	Infrastructure Investment and Jobs Act
EV Tax Credit: Direct pay tax credit for the purchase of new EVs with bonus incentives for vehicles manufactured domestically by union workers.	EV Charging Network: \$7.5 billion to build a national network charging network and expedite the adoption of EVs. Grants are prioritized for rural and low-income areas.
Used EV Tax Credit: Direct pay tax credit of up to \$4,000 for the purchase of used EVs.	EV Battery Manufacturing: \$6 billion to support the development of domestic battery manufacturing and recycling.
Commercial EV Credit: Creates a new commercial tax credit for qualified commercial electric vehicles placed into service by the taxpayer.	EV Battery Recycling and Second-Life: \$200 million for research, development, and demonstration of second-life EV batteries for energy storage and grid resilience.
USPS Electric Vehicles and Charging infrastructure: \$2.57 billion for the purchase of USPS electric delivery vehicles and \$3.4 billion for the purchase and installation of EV charging infrastructure.	
GSA Clean Vehicle Fleet: \$3 billion to the GSA for the procurement of zero-emission and electric vehicles.	

Figure 1

U.S. Electricity Sector CO₂ Emissions



Clean Energy and Manufacturing

The Build Back Better agenda contains \$320 billion in 10-year, refundable, full-value tax credits to supercharge the manufacture and installation of new clean electricity generating capacity and decarbonize the manufacturing industry. These clean energy tax credits are projected to lower power sector emissions by 64-73 percent below 2005 levels by 2031, an eightfold reduction compared to extending the existing tax credit regime at full credit values. For the first time, these investments also encourage companies to work with unions–through an incentive structure that will lead companies to pay living wages, employ highly-trained workers, and use a majority of materials produced domestically. The BBBA accomplishes this by establishing a two-tiered incentive structure within the clean energy tax code: a "base rate" and an additional "bonus rate" for products made by unionized workers that meet "Made in America" domestic content standards. The plug-in EV tax credit, for example, includes a \$7,500 base rate credit, but consumers can claim an additional \$4,500 credit if the vehicle is assembled domestically by unionized workers.

The Build Back Better agenda is also projected to create more than millions of new, good-paying union jobs over the next 10 years, including 556,000 jobs annually in manufacturing and 312,000 jobs annually in construction. During this same period, IIJA is projected to create 772,400 jobs per year (19 percent of jobs), while the BBB Act is projected to support more than 3.2 million jobs per year (81 percent of jobs).

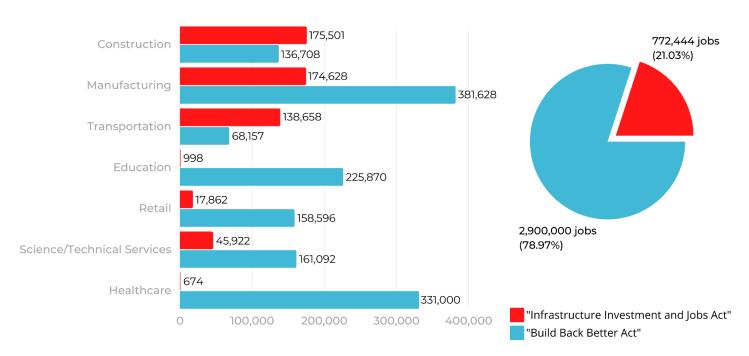
CLEAN ENERGY AND MANUFACTURING		
Build Back Better Act	Infrastructure Investment and Jobs Act	
Production Tax Credit (45): 5-year extension, 100 percent PTC for wind energy projects, and reinstatement for solar projects.	Renewable Energy: \$84 million for enhanced geothermal systems, \$100 million for wind energy, and \$80 million for solar energy.	
Investment Tax Credit (48): Expansion and a 5-year extension of the ITC. Advanced Energy Project Credit (48C): Credit for equipping or expanding renewable energy manufacturing facilities.	Clean Manufacturing: Establishes a grant program to build new or retrofit existing manufacturing and industrial facilities to produce or recycle advanced energy products in communities where coal mines or coal power plants have closed.	
Clean Electricity ITC (48F): A new, technology-neutral credit for net-zero electric generating or storage facility. Advanced Manufacturing PTC (45AA):		

Credit for advanced manufacturing of solar panels and wind turbines.

Figure 2

Jobs supported by the IIJA and BBBA (Annually)

The Build Back Better agenda would support the creation of more than <u>3 million jobs annually</u> over the next 10 years.



Source: Economic Policy Institute analysis of White House and Joint Committee on Taxation data

Transmission and Grid Resilience

Two of the country's biggest energy challenges — increasing resilience and reducing emissions - both depend on a common factor: the energy grid. The Build Back Better agenda includes multiple transmission funding mechanisms to build \$30 billion in transmission across the nation and a key transmission tax credit to add 30,000 megawatts of renewable energy capacity to the grid. Boosting transmission capacity provides enormous carbon-saving benefits. A new analysis from Grid Strategies shows that building 22 new transmission lines and operating them for the next 50 years could lead to total emissions reductions of about 6.4 billion tons of carbon dioxide, an amount roughly equal to the total yearly amount of domestic greenhouse gas emissions.

TRANSMISSION AND GRID RESILIENCE		
Build Back Better Act	Infrastructure Investment and Jobs Act	
Transmission Industrial Tax Credit (48D): New ITC tax credit for transmission projects greater than 275 kilovolts and possessing transmission capacity of at least 500 megawatts.	Grid Resilience: \$5 billion to support activities that reduce the likelihood and consequence of impacts to the electric grid due to extreme weather, wildfire, and natural disaster.	
Department of Energy Transmission Grants: \$2 billion for grants and loans for constructing new high-capacity transmission lines and for upgrading interties between various interconnections. Energy Storage: \$2.88 billion for loans for	Rural Transmission: \$1 billion in federal assistance to rural areas for siting and upgrading transmission, reducing GHG emissions, developing microgrids, and increasing energy efficiency.	
renewable energy and renewable energy storage projects.	Transmission Facilitation Program: \$2.5 billion to facilitate the construction of power transmission lines. This program also	
Transmission planning: \$100 million for transmission planning, modeling, and analyses regarding the development of	permits DOE to enter into capacity contracts for new and upgraded transmission lines.	
interior and offshore wind transmission projects.	Energy Storage: \$355 million for energy storage.	

Energy Efficiency

Reducing energy consumption and improving energy efficiency is one of the fastest and most effective ways to reach our clean energy goals. The Build Back Better agenda makes wide-ranging investments in clean energy tax credits and efficiency across buildings, industry, and transportation that will create new jobs, reduce carbon emissions, and save consumers and businesses money. According to an analysis by the Rhodium Group, these home energy efficiency and electrification rebates for consumers could save the average household up to \$500 a year in energy costs.

ENERGY EFFICIENCY		
Build Back Better Act	Infrastructure Investment and Jobs Act	
Commercial Buildings Energy-Efficiency Tax Deduction (179D): Updates and expands the energy-efficient commercial buildings deduction.	Weatherization Assistance Program: \$3.5 billion to increase energy efficiency, increase health and safety, and reduce energy costs for low-income households by hundreds of dollars every year.	
Residential Energy Efficiency Tax Credit (25C): Extends and increases consumer rebates for more efficient appliances like	Renewable Energy at Public Schools: \$500 million over five years for energy efficiency	

furnaces, HVAC systems, water heaters.

Residential Energy-Efficient Property (25D): Extends and increases the new energy-efficient home credit through 2031.

Energy Efficient Home Credit (45L):

Extends the new energy-efficient home tax credit through the end of 2031.

GSA Federal Building Initiative: \$500 million for GSA's Federal Buildings Fund to convert GSA-owned or managed buildings to high-performance green buildings.

State Building Code (State Assistance):

More than \$700 million for states to adopt both updated and zero energy residential and commercial building codes.

Home Energy Performance-Based, Whole House Rebates, and Training Grants: \$360 million for Home On-Line Performance-Based Energy Efficiency (HOPE) contractor Training Grants and \$5.89 billion for state energy office administered energy efficiency rebates.

High-Efficiency Electric Home Rebate Program: \$6.284 billion for the Department of Energy to administer the high-efficiency electric home rebate program.

and renewable energy improvements to K-12 public schools, giving priority to low-wealth school districts.

Smart Grid Investment Program: \$3 billion expansion of the Smart Grid Investment Matching Grant Program, focusing on upgrading existing transmission and distribution systems, and other actions like deploying energy storage.

Energy Efficiency and Conservation Block Grant Program: \$550 million in grants to local governments to develop, promote, implement, and manage energy efficiency and conservation projects.

Building Codes: \$250 million for enabling sustained, cost-effective implementation of updated building energy codes, and \$225 million for states to conduct commercial or residential energy audits or upgrades and retrofits.

Fossil Fuels

Below-market leasing rates and outdated royalty rates encourage further exploitation of our public lands by fossil fuel companies, leaving taxpayers and future generations on the hook for the environmental damage. The Build Back Better agenda includes numerous commonsense oil and gas reforms such as increasing royalty and rental rates, eliminating noncompetitive leasing, and establishing an abandoned mine reclamation fund to clean up coal mine sites across the country. The current onshore royalty rate of 12.5% has not been updated since the Mineral Leasing Act was signed into law by President Woodrow Wilson in 1920 and is dramatically lower than the rates charged by states and private landowners — in some cases by up to 25%.

The Build Back Better agenda also seeks to curb methane emissions, a powerful greenhouse gas that is 25 times as potent as carbon dioxide at trapping heat in the atmosphere. It is responsible for 10 percent of all U.S. emissions stemming primarily

from natural gas and livestock agriculture. One key provision left out of the Build Back Better agenda, however, was Congress' inability to repeal domestic fossil energy tax subsidies.

FOSSIL FUELS		
Build Back Better Act	Infrastructure Investment and Jobs Act	
Methane Reductions Program: Establishes a Methane Emissions Reduction Program to control excess methane pollution from the oil and gas industry. The charge for excess methane emissions begins at \$900/ton in 2023, increases to \$1,200/ton in 2024, and \$1,500/ton thereafter.¹ The program also includes \$775 million for grants, rebates, and loans to reduce methane emissions from oil and gas activities.	Cleanup of Orphaned Wells: \$5 billion for programs to plug, remediate, and reclaim orphaned wells on Federal, State, and Tribal lands. Abandoned Mine Reclamation: \$11.3 billion to clean up coal mine sites across the country.	
Arctic National Wildlife Refuge: Repeal of the Arctic National Wildlife Refuge Oil and Gas program.		
Royalty Rates: Increases the royalty rate for all new onshore fossil fuel leases from 12.5% to 20% for all new onshore fossil fuel leases and from 20% for all new offshore fossil fuel leases.		
Make Polluters Pay: Requires fossil fuel companies to offer bonds upfront that cover the full cost of reclaiming wells when extraction operations cease.		
Non-Competitive Leasing: Eliminates non-competitive leasing and raises the minimum onshore oil and gas minimum bid from \$2 to \$10, indexed to inflation.		
Offshore Drilling Ban: Permanently bans offshore oil and gas leasing along the entire Atlantic and Pacific coasts as well as the Eastern Gulf of Mexico.		
International Fossil Fuel Subsidies: Eliminates \$86.2 billion in taxpayer-funded international fossil fuel subsidies.		

¹ Adjusted for Global Warming Potential (GWP), the price of \$1,500 per ton of excess methane emissions is equivalent to \$50 per ton of carbon emissions.

Conclusion

The bipartisan infrastructure bill is an important step forward for restoring our nation's crumbling infrastructure, and creating good, union jobs, but by itself, it will only have a negligible impact on U.S. emissions. The BBBA achieves President Biden's climate goals without raising taxes on anyone earning less than \$400,000 per year and without increasing the deficit. According to the Department of Treasury, President Biden's proposal to provide \$80 billion in funding to the IRS will bring in an estimated \$400 billion in additional revenue over the next decade.

CPC Center thanks Center for Biological Diversity, Earthjustice, Evergreen Action, Friends of the Earth, Moving Forward Network, and WE ACT for Environmental Justice for their comments and insights.