



## OVERVIEW: BIDEN'S \$2 TRILLION CLEAN ENERGY INFRASTRUCTURE PLAN

On Tuesday, July 14th, presumptive Democratic presidential nominee Joe Biden issued an updated climate plan, seeking to invest \$2 trillion to bolster clean energy and rebuild infrastructure. The proposal is the second plank of his new economic platform called "Build Back Better," which he first [announced](#) on July 9th. Biden's new [climate plan](#) calls to chart the U.S. on "an irreversible path" to net-zero carbon emissions by 2050.

Notably, Biden aims to achieve a carbon pollution-free power sector by 2035, which is far more ambitious than any emissions target he has previously proposed. He also seeks to upgrade 4 million buildings and weatherize 2 million homes over four years to increase energy efficiency. Moreover, with respect to auto emissions reductions, Biden would utilize "all levers of the federal government," including purchasing power, R&D, and investment policies, to enhance the domestic clean vehicle industry and create an estimated 1 million new jobs. These new timeline and spending commitments, as well as the proposed infrastructure investments outlined below, represent a significantly more aggressive approach to climate change for Biden, who has faced calls from certain progressives and Green New Deal activists to make the issue a flagship priority.

A noteworthy aspect of Biden's plan is its central focus on job creation — virtually every issue area covered is viewed through an economic lens, rather than a strictly environmental one. This is indicative of the delicate line Biden's campaign faces as it seeks to appeal to climate-minded progressive voters without turning off more conservative working-class voters in key swing states where coal and natural gas are economic drivers.

Finally, Biden's campaign also highlights his [proposals](#) to make environmental justice a priority in "every aspect of [his] plan to rebuild a resilient infrastructure and sustainable, clean energy economy." For example, Biden would set a goal for disadvantaged communities to receive 40% of overall benefits of spending in the areas of clean energy and other climate-related investment.

Below are the specific proposals outlined in Biden's clean energy and infrastructure plan, as categorized by the plan's seven sections.

### 1. [BUILD A MODERN INFRASTRUCTURE](#)

Biden seeks to create millions of well-paying, union jobs by modernizing infrastructure — including smart roads, water systems, municipal transit networks, schools, airports, rail, ferries, ports, and universal broadband access — for all Americans. The specifics of this infrastructure plan include:

- i) ***Transforming our crumbling transportation infrastructure.*** Biden calls for unprecedented investments in the nation’s transportation infrastructure, including roads, bridges, and inland waterways. Funding would also go to the energy sources that power the transportation sector, making it easier for mobility to be powered by electricity and clean fuels.
- ii) ***Sparking the second great railroad revolution.*** Biden wants to ensure that America has the cleanest, safest, and fastest rail system in the world — for both passengers and freight. To speed that work, Biden says that he would tap existing federal grant and loan programs at the U.S. Department of Transportation, and improve and streamline the loan process.
- iii) ***Ensuring clean, safe drinking water in all communities.*** This component of Biden’s plan proposes investment in the repair of water pipelines and sewer systems, replacement of lead service pipes, upgrade of treatment plants, and integration of efficiency and water quality monitoring technologies. Green infrastructure development, including the protection and restoration of wetlands, will play a significant role here as well.
- iv) ***Expanding wireless broadband via 5G to every American.***
- v) ***Cleaning up and redeveloping abandoned industrial sites.*** Biden seeks to clean and redevelop abandoned and underused Brownfield properties, old power plants and industrial facilities, landfills, abandoned mines, and other idle community assets.

## 2. POSITION THE U.S. AUTO INDUSTRY TO WIN THE 21ST CENTURY WITH TECHNOLOGY INVENTED IN AMERICA

Biden’s plan states that “China is on track to command more than four times the global market share compared to the U.S. in electric vehicle production,” which will stifle the overall “long-term prospects of clean vehicle innovation.” Therefore, Biden would use all the levers of the federal government, including purchasing power, R&D, tax, trade, and investment policies, to reverse this trend and position America to be the global leader in the manufacture of electric vehicles. Biden would also “vigorously enforce” trade rules in response to currency manipulation, overcapacity, and Chinese government abuses in this sector.

Moreover, as part of his effort to create 1 million well-paying, union jobs in auto manufacturing, auto supply chains, and auto infrastructure, Biden would adopt the following proposals:

- i) ***Use the power of federal procurement to increase demand for American-made, American-sourced clean vehicles.*** As part of his commitment to increasing procurement investments, Biden would purchase clean vehicles for federal, state, tribal, postal, and local fleets.
- ii) ***Encourage consumers and manufacturers to go clean.*** Biden proposes giving rebates to consumers to swap old, less-efficient vehicles for newer, American vehicles. These rebates would be accompanied by targeted incentives for manufacturers to build or retool factories to assemble zero-emission vehicles, parts, and associated infrastructure in the U.S.
- iii) ***Make public investments in automobile infrastructure — including in 500,000 electric vehicle charging stations — to create good jobs in industries supporting vehicle electrification.***
- iv) ***Accelerate research on battery technology and support the development of domestic production capabilities.***
- v) ***Set a goal that all new American-built buses be zero-emissions by 2030.*** Biden seeks to accelerate the progress by converting all 500,000 school buses in our country to zero emissions.
- vi) ***Establish ambitious fuel economy standards that save consumers money and cut air pollution.***

### 3. ACHIEVE A CARBON POLLUTION-FREE POWER SECTOR BY 2035

Here, Biden’s campaign states that it’s plan for the U.S. electricity sector — and electrifying an increasing share of the economy — “represents the biggest job creation and economic opportunity engine of the 21st century.” Biden aims to achieve millions of jobs in the transition to clean electric power by implementing the following measures:

- i) ***Marshal historic investment in energy efficiency, clean energy, electric systems, and line infrastructure that makes it easier to electrify transportation, and new battery storage and transmission infrastructure that will address bottlenecks and unlock America’s full clean energy potential.***
- ii) ***Reform and extend the tax incentives that generate energy efficiency and clean energy jobs; develop financing mechanisms that leverage private sector dollars to maximize investment in the clean energy revolution; and establish a technology-neutral Energy Efficiency and Clean Electricity Standard (EECES) for utilities and grid operators.***
  - o Biden’s plan states that this EECES, paired with front-loaded investments in the power sector, will cut electricity bills and pollution, increase competition in the market, and incentivize higher utilization of assets — and achieve carbon-pollution free energy in electricity generation by 2035.
  - o Biden would also scale up best practices from state-level clean energy standards that provide renewable credits to developers that follow high labor standards, including through Project Labor and Community Labor Agreements.
  - o In total, Biden hopes to spur the installation of millions of solar panels and tens of thousands of wind turbines including thousands of offshore turbines.
  - o His plan also states that he would rely on existing energy sources like nuclear and hydrogen power, so long as those facilities meet robust worker and environmental standards.
- iii) ***Leverage existing infrastructure and assets.***
  - o To build the next generation of electric grid transmission and distribution, Biden would prioritize re-powering of lines that already exist with new technology, take advantage of existing rights-of-way, and cut red-tape to promote faster and easier permitting
  - o He would double down on research investments and tax incentives for technology that captures carbon and then permanently sequesters or utilizes that captured carbon, which includes lowering the cost of carbon capture retrofits for existing power plants.
  - o Additionally, Biden would ensure that the market can access green hydrogen at the same cost as conventional hydrogen within a decade.

### 4. MAKE DRAMATIC INVESTMENTS IN ENERGY EFFICIENCY IN BUILDINGS

The overarching goals of Biden’s approach to reducing emissions from buildings are to create 1 million jobs, provide energy upgrades to 4 million buildings, and to weatherize 2 million homes. Moreover, paired with legislation to set a new net-zero emissions standard for all new commercial buildings by 2030, the Biden campaign asserts that its infrastructure plan will accelerate progress to Biden’s target of

cutting the carbon footprint of U.S. national building stock in half by 2035. His plan also calls for an array of other major initiatives in this space, including to:

- i) ***Provide direct cash rebates and low-cost financing to upgrade and electrify home appliances, install more efficient windows, and cut residential bills.***
- ii) ***Establish building performance standards for existing buildings nationwide.*** This effort would be supported with new funding mechanisms for states, cities, and tribes to adopt strict building codes and labor standards to ensure quality and predictability.
- iii) ***Launch a multi-year national effort to modernize U.S. schools and early learning facilities.*** In line with the [Rebuild America's Schools Act](#), Biden would make significant investments to improve public school buildings, with resources weighted to lower-income rural and urban schools. These funds would be used to address health risks, such as improving indoor air quality ensuring access to clean water, as well as making energy-efficient, climate resilient campuses.
- iv) ***Spur the construction of 1.5 million homes and public housing units to address the affordable housing crisis, increase energy efficiency, and reduce the racial wealth gap.***

## 5. PURSUE A HISTORIC INVESTMENT IN CLEAN ENERGY INNOVATION

Biden's plan seeks to accelerate clean energy R&D investment "on a scale well beyond the Apollo program." It's stated focus is on strategic research areas like clean energy, clean transportation, clean industrial processes, and clean materials. Biden's chief proposals include:

- i) ***Creating a new Advanced Research Projects Agency on Climate.*** ARPA-C would target affordable, innovative clean energy technologies, including:
  - o grid-scale storage at one-tenth the cost of lithium-ion batteries;
  - o advanced nuclear reactors, that are smaller, safer, and more efficient at half the construction cost of today's reactors;
  - o refrigeration and air conditioning using refrigerants with no global warming potential;
  - o zero net energy buildings at zero net cost, including through breakthroughs in smart materials, appliances, and systems management;
  - o using renewables to produce carbon-free hydrogen at a lower cost than hydrogen from shale gas through innovation in technologies like next generation electrolyzers;
  - o decarbonizing industrial heat needed to make steel, concrete, and chemicals and reimagining carbon-neutral construction materials;
  - o decarbonizing the food and agriculture sector, and leveraging research in soil management, plant biologies, and agricultural techniques to remove carbon dioxide from the air and store it in the ground; and
  - o capturing carbon dioxide through direct air capture systems and retrofits to existing industrial and power plant exhausts, followed by permanently sequestering it deep underground or using it to make alternative products like cement.
- ii) ***Accelerate innovation in supply-chain resilience.***
- iii) ***Invest in national laboratories and high-performance computing capabilities.***

- iv) *Strengthen land-grant universities, Historically Black Colleges and Universities (HBCUs), and other minority serving institutions (MSIs).*

## 6. ADVANCE SUSTAINABLE AGRICULTURE AND CONSERVATION

- i) *Mobilizing the next generation of conservation and resilience workers through a Civilian Climate Corps.* This initiative, Biden’s plan says, would be driven by a new generation of scientists and land managers committed to ecological integrity and natural climate solutions. Their focus would be utilizing science-based techniques to restore natural systems, including wetlands, forests, and reefs.
- ii) *Creating more than a quarter million jobs immediately to clean up local economies from the impacts of resource extraction.* By making an immediate up-front investment, Biden’s campaign asserts that he would create more than 250,000 good jobs with a choice to join a union to plug abandoned oil and gas wells and to restore and reclaim abandoned coal, hardrock, and uranium mines.
  - o Biden would also “hold companies accountable for the environmental damage of their operations, including by clawing back golden parachutes and executive bonuses for companies that shift the environmental burdens of their actions onto taxpayers.”
- iii) *Helping farmers leverage new technologies, techniques, and equipment to increase productivity and profit,* including by providing low-cost finance for the transition to new equipment and methods, funding research and development in precision agriculture and new crops, and establishing a new voluntary carbon farming market that rewards farmers for the carbon they sequester on their land and the greenhouse gas emission reductions, including from methane, that they secure.
- iv) *Pursuing smarter pro-worker and pro-family-farmer trade policies.*
- v) *Bolstering the security and resilience of our food supply,* including by leveraging precision agriculture through regional demonstration projects to minimize the impacts of drought.
- vi) *Making sure small and medium-sized farms and producers have access to fair markets where they can compete and get fair prices for their products* – by strengthening enforcement of the Sherman and Clayton Antitrust Acts and the Packers and Stockyards Act.
- vii) *Investing in diverse farmers to make our agriculture sector stronger and more resilient.*
- viii) *Expanding protections for farm workers.* Biden commits to working with Congress to provide legal status based on prior agricultural work history and to ensure labor and safety rules are enforced with respect to these particularly vulnerable working people.
- ix) *Building on Biden’s [rural plan](#),* which includes proposals to re-invest in land grant universities’ agricultural research so the public, not private companies, owns patents to agricultural advances.

## 7. SECURE ENVIRONMENTAL JUSTICE AND EQUITABLE ECONOMY OPPORTUNITY

Biden pledges that every aspect of his plan to rebuild a resilient infrastructure and a clean energy economy will prioritize addressing environmental injustice. In addition to Biden’s more environmental-justice-specific plan, linked [here](#), his infrastructure plan lays out several key actions a Biden administration would take on this issue:

- i) *Set a goal that disadvantaged communities receive 40% of overall benefits of spending in the areas of clean energy and energy efficiency deployment; clean transit and transportation; affordable and sustainable housing; training and workforce development; remediation and reduction of legacy pollution; and development of critical clean water infrastructure.*

- In addition, Biden would directly fund substantial investments across federal agencies aimed at eliminating legacy pollution and addressing common challenges faced by minority and impoverished communities, such as funds for replacing and remediating lead service lines and lead paint in households, childcare centers, and schools.
- ii) ***Create a data-driven Climate and Economic Justice Screening Tool to identify disadvantaged communities, from urban to rural to tribal communities – including those threatened by the cumulative stresses of climate change, economic distress, racial inequality, and multi-source environmental pollution.***
  - Biden would instruct his Cabinet to prioritize climate change strategies and technologies that reduce traditional air pollution in the disadvantaged communities identified by the *Climate and Economic Justice Screening Tool*.
- iii) ***Ensure that the Administration prioritizes environmental justice issues and holds polluters accountable.***
  - Biden assures that frontline and fenceline communities would be at the table when enforcement, remediation, and investment decisions affecting those communities are made. He would also require that working groups on these issues report directly into the White House, so that communities facing the dual threat of environmental and economic burdens have access to the highest levels of the Biden Administration.
  - Lastly, Biden would establish a new Environmental and Climate Justice Division within the Justice Department “to complement the work of the Environment and Natural Resources Division and hold polluters accountable.”

