



Bipartisan Policy Center

Climate Benefits of the Infrastructure Investment and Jobs Act are Bigger than Models Suggest

The Biden administration set goals of net-zero U.S. greenhouse gas emissions by 2050 and a 50% reduction from peak U.S. emissions (2005 levels) by 2030. Recent studies—including by [Princeton University's Zero Lab](#), [Rhodium Group](#), and [Energy Innovation](#)—have attempted to put a number on how far the Infrastructure Investment and Jobs Act and the Build Back Better Act will get the United States towards its climate goals.

The IIJA climate benefits are understated when studies like that from Princeton do not model over 50 bill provisions, a \$43 billion investment in infrastructure and policy improvements for clean energy.

There's no doubt that quantitative modeling is a critical component of evaluating good policy, and these groups are some of the best in the business when it comes to energy and emissions modeling tools. But just like any tool is only as good as its component parts, models have inherent limitations in quantifying certain policy provisions that do not have easily calculable effects on energy supply or demand.

We have previously outlined how the IIJA represents a massive upfront investment with both near- and long-term climate benefits: [The Infrastructure Investment and Jobs Act is a Major Down Payment for Climate Action](#). The bill advances four emission-reducing pathways:

- Research & Development
- Backbone Infrastructure for Net Zero
- Demonstration Projects
- Infrastructure Permitting Reform

Table 1 below lists key provisions from each pathway that support and enable decarbonization but were not included in the recent Princeton modeling study. These features should not be overlooked when considering how the IIJA sets the conditions for climate success—in particular through creating a more effective technology commercialization pipeline, accelerating the buildout of clean infrastructure, and driving significant carbon emissions reductions over time.

Table 1. Climate Beneficial IIJA Provisions Not Included in the Princeton Modeling Study

Research & Development	Demonstration Projects	Permitting Reform
<ul style="list-style-type: none"> • \$200M for R&D on recycling and reusing EV batteries • \$2.5B for DOE’s Carbon Storage Validation and Testing program • Redefines a clean hydrogen research program within EAct of 2005 	<ul style="list-style-type: none"> • \$500M total for clean energy demos on mine lands • Authorization of Appropriations for Energy Act of 2020 <ul style="list-style-type: none"> ◦ \$355M for energy storage demos ◦ \$150M for long-duration storage demonstration initiative and joint program ◦ \$2.5B for advanced nuclear reactor demonstration funding ◦ \$3.5B for carbon capture pilot and demonstration projects ◦ \$115M for direct air capture technology prize competitions ◦ \$146M for hydropower and marine energy RD&D and National Marine Energy Centers ◦ \$264M in renewable energy demonstration projects ◦ \$21.456B for the Office of Clean Energy Demonstrations (which includes some of the funding for the above technology demonstrations) 	<ul style="list-style-type: none"> • Removal of loophole in NIETC program that allowed state to delay issuing a permit by allowing FERC to take action • \$5M/year for EPA Class VI well permits and \$50M total in grants for state agency permitting • Reauthorization of FAST-41, codification of One Federal Decision, and establishment of a new federal goal to approve projects within two years • \$3M for federal permitting improvement

Table 1. Continued

Backbone Infrastructure

Grid Infrastructure and Resiliency

- 5B to prevent outages and enhance grid resilience
- \$5B for the “Program Upgrading Our Electric Grid and Ensuring Reliability and Resilience”
- \$3B for the Smart Grid Investment Matching Grant Program
- \$500M for the State Energy Program

Hydropower

- \$125M in additional hydroelectric production incentives under section 242 of EAct of 2005
- \$75M in additional hydro efficiency improvement incentives
- \$553.6M for FY22 to allow existing hydro plants to make upgrades to provide more services to the grid
- \$10M total for pumped hydro demonstration projects

Energy Efficiency and Building Infrastructure

- \$40M grant program for energy auditor program launched by states
- \$225M total towards a competitive grants program through DOE’s Building Technologies Office
- \$10M for institutions of higher education to establish centers to train engineers in energy efficient design and operations
- \$10M total for the federal cost share of nonprofit partnerships for career skills training programs
- \$150M for institutions of higher education to set up industrial research and assessment centers
- \$400M total in implementation grants to small and medium sized manufacturers that have been assessed by these higher education centers to implement the suggested changes
- Allowance of the Secretary of Energy to carry out energy efficiency audits on request of a manufacturer
- \$50M total in financial assistance that DOE can provide to states to establish program that increase manufacturers’ access to smart manufacturing tools
- \$50M for a pilot program to award grants to nonprofits to equip buildings with energy-efficiency materials
- \$250M for the Assisting Federal Facilities with Energy Conservation Technologies grant program
- \$10M for the extended product system rebate program
- \$10M for the energy efficient transformer rebate program

Natural Climate Solutions

- Approximately \$6.5B total for wildfire management provisions
- Inclusion of the Repairing Existing Public Land by Adding Necessary Trees (REPLANT) Act, which lifts the current funding cap of \$30 million per year on the Reforestation Trust Fund

Other

- \$2.25B for the Low-No Program/zero emission transit buses
- \$4.7B for remediation of orphaned oil and gas wells
- \$3B total Battery Material Processing Grant Program
- \$310M grant program for states, local governments, and utilities that buy C&I products that use or are derived from anthropogenic carbon oxides
- \$750M grant program for facilities to recycle advanced energy technologies