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The Advisory Services team has over 250 management consultants with premium, strategic advice that is rooted in the practical, solid-state service that our infrastructure clients around the world have come to expect. We have expertise in funding and finance, economics and decision analysis, strategic planning and policy, sustainability and resiliency, strategic communications and business improvement.

HDR's Advisory Services professionals review infrastructure policy developments and prepare summaries of key provisions to keep our clients informed of the dynamic landscape in Washington, D.C.

## Climate Change, Resiliency and Adaptation

### Infrastructure Investment and Jobs Act Advisory Services Policy Brief #7

President Biden recently signed the **Infrastructure Investment and Jobs Act (IIJA)**, also referred to as the Bipartisan Infrastructure Law, making significant investments in roads, bridges, transit, passenger and freight rail, ports and airports, and other forms of “traditional” infrastructure spending. In addition to that funding, the IIJA spurs substantial investments to reduce our contributions to climate change such as electrifying the transportation network and carbon capture/sequestration. The legislation also supports greater resiliency of our energy grid, and invests in renewable and clean energy, and land restoration. President Biden and his administration have also taken steps through executive action to curb greenhouse gas emissions (GHGs) and strengthen our nation’s resiliency to catastrophic weather events and other outcomes from a warming planet.

This brief provides background on federal climate-related initiatives and serves as an illustrative overview of IIJA programs related to climate, resiliency, and adaptation. This discussion is not exhaustive and should serve as a starting point for understanding the breadth and depth of programs focused on this topic.



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## Introduction

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President Biden has made combating climate change a central plank of his administration, and the IIJA reflects many of those same principles. This brief discusses key federal programs initiated by the executive branch and funding through the IIJA that is intended to address the causes of climate change, improve infrastructure resiliency and foster broader adaptation to extreme weather events. These programs are described in further detail below.

### Biden Administration Climate Initiatives

The Biden administration has emphasized a commitment to mitigating climate change through executive action, bipartisan policy, and global collaboration. On day one of Biden’s presidency, he rejoined the Paris Agreement to send a global signal that the U.S. is committed to limiting GHGs and supporting countries impacted by climate change. In addition, the president established the National Climate Task Force to incentivize action on the administration’s climate aspirations, including the creation of good-paying, green jobs and achieving environmental justice.

President Biden has set ambitious climate commitments:

- 50–52 percent reduction in GHGs by 2030<sup>1</sup>
- Carbon-pollution-free power sector by 2035
- Net-zero emissions by 2050
- Conserve at least 30 percent of our lands and waters by 2030<sup>2</sup>



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<sup>1</sup> FACT SHEET: [President Biden Sets 2030 Greenhouse Gas Pollution Reduction Target Aimed at Creating Good-Paying Union Jobs and Securing U.S. Leadership on Clean Energy Technologies | The White House](#)

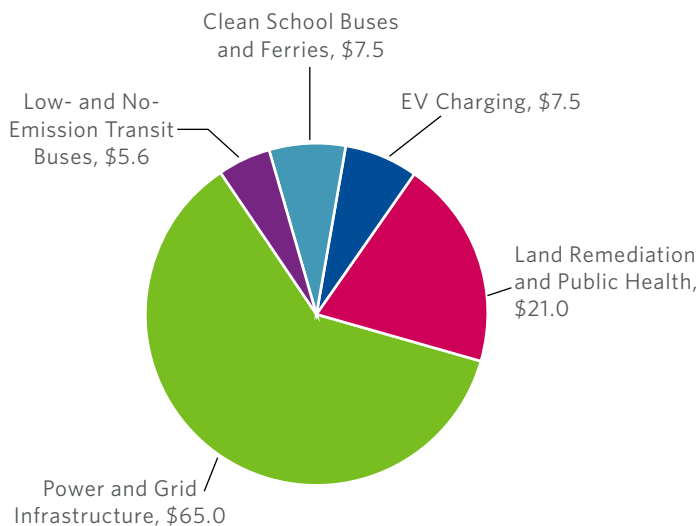
<sup>2</sup> <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/executive-order-on-tackling-the-climate-crisis-at-home-and-abroad/>

## Climate in the IIJA

The IIJA will play a part in achieving Biden’s climate commitments by authorizing historic funding levels for programs that boost clean energy, transportation electrification, carbon reduction, as well as spurring the largest investment in resiliency in American history<sup>3</sup>:

- \$7.5 billion for electric vehicle (EV) charging
- \$21 billion for land remediation and improving public health
- \$65 billion for power and grid infrastructure, including support for clean energy technology, carbon capture, and energy efficiency
- \$5.6 billion for low- and no-emission transit buses
- \$7.5 billion for clean school buses and ferries

### Climate-Related Funding in IIJA (in billions)



Although some of the programs will have more immediate impacts on emissions, such as investments in EV infrastructure, a majority of the programs make strides toward the long-term prospect of an economy-wide transition to support Biden’s climate commitments. Not included in the figures above but worth mentioning is the historic investment in transit (\$91 billion) and passenger rail (\$66 billion), which will curb GHGs through shifting single-occupancy vehicle rides or flights to public transit rides.



<sup>3</sup> [The Bipartisan Infrastructure Law Advances Environmental Justice | The White House](#)



## Overview of Climate and Resiliency Programs

There are provisions tied to climate or resiliency in nearly every part of the IIJA. This brief is organized into three categories: Energy, Resiliency and Transportation.

### Energy Programs

The climate-related energy provisions within the IIJA fall into the following investment categories: Fuels and Technology, Grid Infrastructure and Resiliency, and Methane Reduction Infrastructure. Fuels and Technology represents the most significant investment with provisions relating to carbon capture, storage, sequestration, and utilization.

### Fuels and Technology Infrastructure Investments

#### CARBON REMOVAL

The IIJA makes **\$3.5 billion** available for federal fiscal years 2022-2026 for carbon capture projects that facilitate the development of four regional direct air capture hubs, to be designed by the Department of Energy (DOE). The Energy Secretary will solicit applications no later than 180 days after the date of enactment in order to select eligible projects for funding. This is the largest federal investment in direct capture air facilities in U.S. history. The air capture hubs must:

1. Sequester and/or utilize at least one million metric tons of carbon dioxide from the atmosphere annually
2. Demonstrate the capture, processing, delivery, sequestration and/or end use of captured carbon
3. Have the potential to be developed into a regional or interregional carbon network to facilitate sequestration or carbon utilization

#### CARBON DIOXIDE TRANSPORTATION INFRASTRUCTURE FINANCE AND INNOVATION

The **CO<sub>2</sub> Infrastructure Finance and Innovation Act (CIFIA)** is a new loan program administered by DOE for carbon-capture initiatives, which will provide flexible, low-interest loans for CO<sub>2</sub> transport infrastructure projects and grants. Grants will fund new infrastructure to facilitate development of initial excess CO<sub>2</sub> capacity. Projects must have costs in excess of \$100 million in addition to other eligibilities outlined in the IIJA<sup>4</sup>. CIFIA is authorized for a total of **\$2.1 billion** in carbon-capture initiative loans.

CIFIA will help facilitate private sector investment in CO<sub>2</sub> infrastructure and catalyze a shift away from fossil fuels, in conjunction with two related programs outlined in the IIJA: the Carbon Capture Technology Program and Carbon Storage Validation and Testing, detailed below.

#### CARBON CAPTURE TECHNOLOGY PROGRAM

The IIJA expands DOE's existing Carbon Capture Technology program, which is a multi-strategy approach to identify carbon capture technologies pre- and post-combustion, includes front-end engineering and design for carbon dioxide transport infrastructure necessary to deploy carbon capture, utilization, and storage technologies. In other words, the IIJA provides funding for the essential basic engineering studies necessary to identify issues and estimate investment costs of new technologies after the feasibility study and conceptual design stage. This section authorizes **\$100 million** for FY22-26, available through the DOE's Advanced Research Projects Agency-Energy (ARPA-E) application process.

<sup>4</sup> HDR's Advisory Services is preparing a policy brief focused on CIFIA that will provide a comprehensive analysis of this new program.

### CARBON STORAGE VALIDATION AND TESTING

An expansion of the DOE’s existing Carbon Storage Validation and Testing program funds research on feasible carbon storage options as well as assessing environmental, health, and safety risks and economic viability of identified storage options. This includes the large-scale commercialization of new or expanded carbon sequestration projects and the associated carbon dioxide transport infrastructure. The program is funded at **\$2.5 billion** over five years. Funding will be made available to entities with commercial large-scale carbon sequestration projects and associated carbon dioxide transport infrastructure through an application and selection process managed by the DOE.

#### Secure Geologic Storage Permitting

To pursue the utilization of geologic storage for the sequestration of carbon dioxide, **\$75 million** is available for the permitting of Class VI wells, which are wells used to inject CO<sub>2</sub> into deep rock formations. It also creates a grant program for states to establish their own permitting programs to ensure rigorous and efficient CO<sub>2</sub> geologic storage site permitting.

Of the **\$75 million** authorized, \$25 million is available for the permitting of Class VI wells for the injection of CO<sub>2</sub>, and \$50 million is available for the establishment of state permitting programs. Funding will be made available to state programs through an application and selection process managed by the Environmental Protection Agency (EPA).

### CLEAN ENERGY PROGRAMS AND INCENTIVES

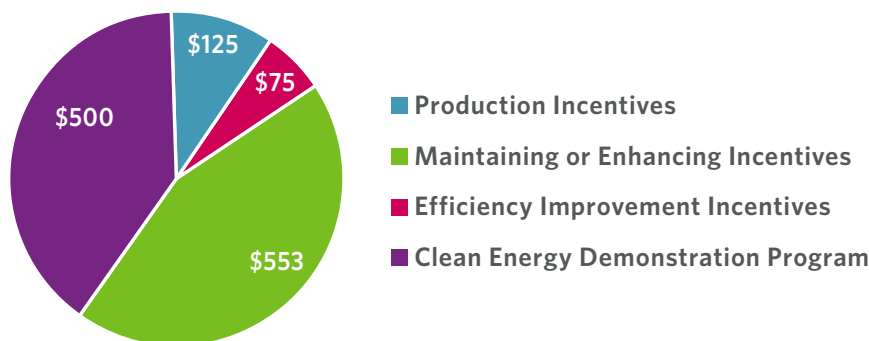
The IIJA funds several programs for clean energy, hydroelectric, efficiency improvements, and increased storage capabilities, as well as clean energy demonstrations. These programs include:

- Hydroelectric production incentives (\$125 million)<sup>5</sup>
- Hydroelectric efficiency improvement incentives (\$75 million)<sup>6</sup>
- Maintaining and enhancing hydroelectricity incentives (\$553.6 million)
- Clean energy demonstration programs on current and former mine land (\$500 million)

### CLEAN HYDROGEN PROGRAMS



Clean Energy Programs and Hydroelectric Incentives  
(in millions)



<sup>5</sup> 42 U.S.C. 15881

<sup>6</sup> 42 U.S.C. 15882



The IIJA funds several hydrogen energy programs to increase production and use. Congress, through the IIJA, emphasizes that hydrogen production should be a part of the larger effort to transition the U.S. to a clean energy economy, requiring an initial standard for the carbon intensity of clean hydrogen 180 days after enactment.

Initiatives include:

- **Regional hydrogen hub program:** The IIJA authorizes \$8 billion for DOE to establish a program to support the development of at least four regional clean hydrogen hubs to demonstrate the production, processing, delivery, storage, and end use of clean hydrogen. The program will solicit applications within 180 days of enactment — meaning a notice for applications is likely in mid-May 2022.
- **National clean hydrogen strategy and roadmap:** DOE must develop a national strategy and roadmap to facilitate a clean hydrogen economy, including research into technological and economic feasibility within 180 days after enactment (mid-May 2022).
- **Clean hydrogen manufacturing initiative:** Authorizes the Secretary of Energy to award \$500 million over five years to eligible entities, which include tribal energy development organizations, American Indian tribes, tribal organizations, Native Hawaiian community-based organizations, and territories of freely associated states. The grant program exists to fund research, demonstration, commercialization, and deployment, which is intended to decrease the cost of clean hydrogen production from advancements in production, processing, delivery, storage, and use equipment technology and techniques.
- **Clean hydrogen electrolysis program:** Authorizes \$1 billion over five years. This program provides funding to improve the efficiency and durability of producing clean hydrogen using electrolyzer systems through research, demonstration, development, commercialization, and deployment initiatives. The program seeks to reduce the cost of hydrogen produced using electrolyzers to less than \$2 per kilogram by 2026. Funding will be made available to entities with eligible projects, as determined by the Energy Secretary, through an application and selection process managed by the DOE.



### **CARBON UTILIZATION PROGRAM**

Funded with a total of **\$310 million**, this section establishes a grant program for state and local governments to procure and use products derived from captured carbon oxides, expanding the DOE's Carbon Utilization program objectives to include the development of standards and certifications to support commercialization of carbon oxide products.

### **CARBON DIOXIDE CAPTURE FACILITIES**

Enacts the bipartisan Carbon Capture Improvement Act (S.1829), allowing carbon capture and direct air capture (DAC) technologies to be eligible for private activity bonds (PABs), which are a low-cost, tax-exempt financing option.

### **Grid Infrastructure and Resiliency**

#### **PREVENTING OUTAGES AND ENHANCING THE RESILIENCE AND FLEXIBILITY OF THE ELECTRIC GRID**

Substantial funding is allocated to increase the resiliency of our current grid infrastructure system, thereby increasing resiliency against natural disasters that are predicted to increase in severity and frequency due to the changing climate. Significant funding is directly allocated to grid infrastructure:

- \$5 billion in grants to support research and demonstration activities that reduce the likelihood and consequence of impacts to the electric grid due to extreme weather, wildfire, and natural disasters
  - Eligibilities include those employed in or overseeing electricity storage, production, or operations as well as fuel suppliers
- \$3 billion for the Smart Grid Investment Matching Grant Program to provide increased grid flexibility, rebalancing, and support to allow for increased integration of distributed energy resources and intermittent generation from renewable sources
- \$2.5 billion in loans for the construction of transmission lines
- \$5 billion for grid hardening, i.e., initiatives that strengthen grid infrastructure for weather-related outages

These programs are described in detail in HDR's Advisory Services Policy Brief addressing Grid Resiliency.

### STATE ENERGY PROGRAM (SEP)

The SEP is the only DOE program that provides cost-shared resources to the states, working with the public and private sector to broadly support states' energy needs and responses to natural and man-made disasters. Example activities include energy efficiency upgrades, EV fleet conversions, and the development of energy emergency plans. The IIJA authorizes **\$500 million** over five years to the SEP for any eligible SEP activity.<sup>7</sup>

The IIJA amends the Energy Policy and Conservation Act to require State Energy Conservation Plans to support transmission and distribution planning activities. In addition to this requirement, it also allows for the inclusion of programs that help reduce carbon emissions in the transportation sector and accelerate the use of alternative transportation fuels for — and the electrification of — state government vehicles, fleet vehicles, taxis, and ridesharing services, mass transit, school buses, ferries, and privately owned passenger, medium-, and heavy-duty vehicles.

### Methane Reduction Infrastructure

The IIJA makes **\$4.7 billion** available to states for programs to plug, remediate, and reclaim orphaned oil and gas wells (i.e., wells that have no designated owner, on federal, state, and tribal lands). Orphaned wells, if left unplugged, can pose significant environmental hazards including the contamination of surface and groundwater. Most notably related to climate change, orphaned wells emit methane, which has 80 times the warming power of CO<sub>2</sub> in the short-term. Funding will be made available to states with eligible projects, as determined by the Energy Secretary, through an application and selection process managed by the DOE.

### Transportation

Transportation provisions within the IIJA addressing climate and resiliency include the electrification of the transportation sector and carbon reduction, among other programs that will make strides toward President Biden's climate commitments. The most significant of these programs is the Promoting Resilient Operations for Transformative, Efficient, and Cost-saving Transportation (PROTECT) grant program.

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<sup>7</sup> The SEP program is implemented through regulations in Title 10, Part 420 of the Code of Federal Regulations, see [eCFR :: 10 CFR Part 420 -- State Energy Program](#)







Programs in the Transportation sector that will impact climate and resiliency are summarized below.

### **PROMOTING RESILIENT OPERATIONS FOR TRANSFORMATIVE, EFFICIENT, AND COST-SAVING TRANSPORTATION (PROTECT)**

The IIJA makes a substantial investment in transportation planning and resilience through the PROTECT grant program. The program includes **\$7.3 billion** in formula funds that will be distributed to states and **\$1.4 billion** in competitive grants, for a total of **\$8.7 billion** over a five-year period. States and local agencies may apply for these funds through grant applications administered by USDOT. Eligible projects for the competitive grants include projects that:

- Enhance the resiliency of infrastructure assets, including projects to improve the resilience of surface transportation assets and evacuation routes
- Ensure continuity of operations and/or rapid recovery of communities where a natural disaster has occurred
- Utilize and improve natural coastal infrastructure

There are four categories established by the IIJA to distribute competitive grant dollars:

- **Planning Grants (\$140 million):** Grants to assist with the development of transportation resilience plans, vulnerability assessments, technical capacity building within the requesting organization/entity, or evacuation planning.
- **Resilience Improvement Grants (\$980 million):** May be used for construction activities to improve the ability of an existing surface transportation asset to withstand weather events or natural disasters, or to increase the resilience of surface transportation infrastructure from the impacts of natural disasters.
- **Community Resilience and Evacuation Route Grants (\$140 million):** May be used to strengthen and protect evacuation routes that are essential for providing and supporting evacuations caused by emergency events, including the creation or restoration of physical routes and communications equipment and signage.
- **At-Risk Coastal Infrastructure Grants (\$140 million):** May be used for enhancing the resilience of highway and non-rail infrastructure, including bridges, roads, pedestrian walkways, bicycle lanes, and associated infrastructure, such as culverts and tide gates. Funding is intended to increase resiliency of infrastructure facing an increased long-term future risk of weather events, natural disasters, or changing conditions in order to improve transportation and public safety and to reduce future maintenance or rebuilding costs.

The non-federal cost share, or state/local/requesting entity cost burden, of projects carried out with PROTECT funds can be reduced by 7 percent if a state or eligible entity develops a resiliency improvement plan and reduced by an additional 3 percent if a state or eligible entity incorporates a resiliency improvement plan within its long-range statewide transportation plan or metropolitan transportation plan.

### **Formula Programs**

Federal aid formula programs distribute funds from the federal Highway Trust Fund to states according to a “formula” established in statute — in this case, the IIJA. For the amounts available to each state and territory, under each formula program, see the FHWA announcement [here](#).

## CARBON REDUCTION PROGRAM

The IIJA creates a new **\$6.4 billion carbon reduction program** to reduce transportation emissions. This formula funding is for states' investment in technology and projects that directly result in reduced transportation emissions. Eligible projects include:

- Traffic monitoring, management, and control facilities or programs, including advanced truck stop electrification systems
- Public transportation projects
- Trail facilities for pedestrians and bicyclists
- Advanced transportation and congestion management technologies
- Infrastructure-based intelligent transportation system capital improvements
- Vehicle-to-infrastructure communications equipment, including retrofitting dedicated short-range communications technology
- Street lighting and traffic control device replacement with energy-efficient alternatives
- Development of a carbon reduction strategy

The state must also develop a carbon reduction strategy within two years of bill enactment with assistance from USDOT at the request of the state.

## SURFACE TRANSPORTATION BLOCK GRANT (STBG) PROGRAM

In addition to creating new formula programs to advance climate objectives, the IIJA also modifies existing programs such as the STBG program, the second-largest tranche of funding apportioned to states through a formula, behind the National Highway Performance Program. Importantly, the IIJA expands eligible project types under the STBG to include:

- Construction of wildlife crossing structures
- EV charging infrastructure
- Vehicle-to-grid infrastructure
- Installation and deployment of intelligent transportation technologies
- Projects that facilitate intermodal connections between emerging transportation technologies
- Resilience features
- Cybersecurity protections
- Water/port infrastructure

## GRANTS FOR CHARGING AND FUELING INFRASTRUCTURE

A new formula program for EVs will apportion **\$5 billion per year** through the federal aid highway program to “strategically deploy EV charging infrastructure and to establish an interconnected network to facilitate data collection, access, and reliability.” In administering this new formula program, the USDOT will issue guidance on statewide electrification plans that describe how the state will use funds distributed under this program. These plans will be due within 120 days of USDOT providing the guidance on the plans — as required by the IIJA. The legislation further stipulates that if states fail to comply with the planning requirement, USDOT may withhold funds through this program.

In addition to formula funds, the IIJA allocates **\$2.5 billion over five years** for competitive grants for projects along Alternative Fuel Corridors that will strategically deploy publicly accessible EV charging infrastructure, hydrogen fueling infrastructure, propane fueling infrastructure, and natural gas fueling infrastructure. These fueling locations should be accessible to all drivers of EVs,





hydrogen vehicles, propane vehicles, and natural gas vehicles. Fifty percent of the total program funds will be made available each fiscal year for Community Grants, to install EV charging and alternative fuel in locations on public roads, schools, parks, and in publicly accessible parking facilities. Rural and low-income areas, as well as other areas with limited access or an increased need for EV charging infrastructure, will be prioritized.

The IIJA also establishes a 25-member EV working group to provide federal guidance and strategy for the development, adoption, and integration of EVs into the nation's transportation and energy systems.

### **REDUCTION OF TRUCK EMISSIONS AT PORT FACILITIES**

With a total of **\$400 million available**, this new discretionary program provides grants to “test, evaluate, and deploy projects that reduce port-related emissions from idling trucks, including through the advancement of port electrification and improvements in efficiency, focusing on port operations, including heavy-duty commercial vehicles, and other related projects.”

### **HEALTHY STREETS**

The Healthy Streets Program provides discretionary grants for projects that aid in the reduction of urban heat centers, improve air quality, and reduce stormwater runoff, particularly in environmental justice areas. An individual grant under this section shall not exceed \$15 million, **with up to \$500 million** available over the five-year term of the bill. Eligible entities include states, metropolitan planning organizations, local governments, tribal governments, or nonprofit organizations working with one of the entities listed prior. Eligible projects include cool or porous pavements and tree cover expansion. Priority may also be given to applicants that enter into a community benefits agreement with community representatives and/or who are partnering with a qualified youth or conservation corps. Funding for this program is subject to future congressional appropriations.

### **CONGESTION REDUCTION**

The Congestion Relief Program is funded with **\$50 million per year** to provide discretionary grants to states, local governments, and metropolitan planning organizations to advance innovative, integrated, and multimodal solutions to congestion relief in the most congested metropolitan areas of the United States. The goals of this program are to reduce the economic and environmental costs of congestion and to increase the utilization of public transit systems.

### **CONGESTION MANAGEMENT AND AIR QUALITY IMPROVEMENT PROGRAM**

The Congestion Management and Air Quality (CMAQ) Improvement Program is a formula program that, as its name implies, funds projects that contribute to reducing congestion and improving air quality. The IIJA expands eligibilities for the CMAQ program to include micro-mobility projects as well as zero-emission vehicles and charging equipment.

### **TRANSPORTATION INFRASTRUCTURE FINANCE AND INNOVATION ACT OF 1998 AMENDMENTS**

The IIJA makes several updates to the existing Transportation Infrastructure Finance and Innovation Act (TIFIA) federal lending program. Notable for climate considerations, there is new eligibility for public infrastructure located near transportation facilities to promote transit-oriented development, as well as eligibility for projects to acquire plant and wildlife habitats pursuant to a transportation project environmental impact mitigation plan.

## CLEAN BUSES, SCHOOL BUSES, AND FERRIES

The EPA's clean school bus program, with **\$5 billion** over five years, provides funding for the replacement of existing school buses with low- and zero-emission buses. Half of the available funding is dedicated to zero-emission school buses and half to clean school buses. Low-income or rural areas may be prioritized for funding. States, localities, contractors, and nonprofit school transportation associations are eligible.

The Federal Transit Administration within USDOT administers nearly **\$10.8 billion** in funding to transit agencies for buses and bus facilities through formula and discretionary grant programs. The Low or No-Emissions Bus Program comprises **\$5.6 billion** of that amount and supports transit agencies with purchasing or leasing zero-emission or low-emission transit buses as well as acquisition, construction, and leasing of required supporting facilities.<sup>8</sup> This funding for low- and no-emission buses represents a nearly **870% increase in funding** for these clean buses. With this increase in funding, new requirements are in place for recipients to prepare "fleet transition plans" when pursuing these zero- and low-emission grants.<sup>9</sup>

The electric or low-emitting ferry pilot program, with **\$250 million** authorized, is a pilot program to provide grants to public ferry operators for the purchase of electric or low-emitting (methanol, natural gas, liquefied petroleum gas, hydrogen, coal-derived liquid fuels, biofuels) ferries. These investments will further advance efforts for fleet conversion from carbon intensive fuels.

## Additional Resiliency Measures

### Federal Emergency Management Agency Programs

The Federal Emergency Management Agency (FEMA) oversees several programs that support "mitigation to reduce disaster suffering and avoid future disaster costs in the face of more frequent and severe events arising from wildfires and droughts to hurricanes, tornados and floods."<sup>10</sup>

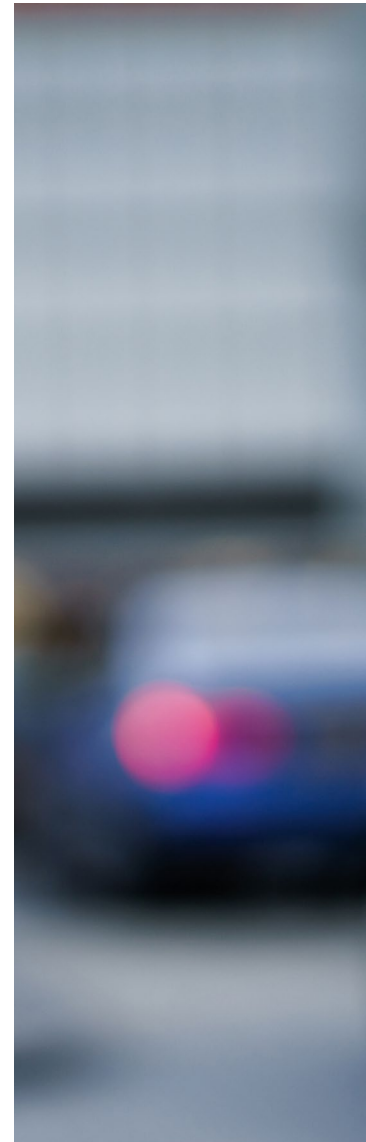
FEMA programs funded through the IIJA include:

- \$3.5 billion for Flood Mitigation Assistance Grants over five years — \$700 million per year, more than tripling the historic amounts available under the program
- \$1 billion over five years for the Building Resilient Infrastructure and Communities program that supports hazard mitigation projects
- \$733 million for dam safety grants to enhance dam safety and rehabilitate or remove aging dams

<sup>8</sup> <https://www.transit.dot.gov/lowno>

<sup>9</sup> <https://www.transit.dot.gov/funding/grants/fact-sheet-buses-and-bus-facilities-program>

<sup>10</sup> <https://www.fema.gov/press-release/20211115/infrastructure-deal-provides-fema-billions-community-mitigation-investments>





## Environmental Justice Populations

Equity and environmental justice are critical considerations integrated throughout the IIJA's programs described in detail in our [Equity and Environmental Justice IIJA Policy Brief](#). Many programs in the IIJA are specific to equity and environmental justice, but two are most relevant to climate and resiliency. The first is the Tribal Climate Resilience Program, which authorizes **\$216 million** over five years to federally recognized tribes and tribal organizations for tribal climate resilience, adaptation, community relocation planning, design, and implementation of projects that address the varying climate challenges facing tribal communities across the country. The second is the Low-Income Housing Energy Assistance Program, which authorizes **\$500 million** to provide low-income families assistance with rising energy prices due to extreme weather, as predicted to occur with the changing climate.

## Water Infrastructure

In total, the IIJA authorizes over **\$63.3 billion** for programs related to water, including Western water storage. Many of these relate to climate and resiliency tangentially, but only a select number specifically address climate-related mitigation measures and climate resiliency for water infrastructure. These programs are summarized below. For a more detailed look at funding for water infrastructure improvements and drought contingency operations under the IIJA such as the Aging Infrastructure Account and Drought Contingency Plan Funding under Title IX, read the upcoming Water Resources Policy Brief.

### THE U.S. DEPARTMENT OF AGRICULTURE (USDA) NATURAL RESOURCE CONSERVATION SERVICE (NRCS) WATERSHED PROGRAMS

The IIJA authorizes **\$618 million** for financial and technical assistance units of federal, state, local, and tribal governments to address erosion, floodwater and sediment damage, conservation development, use and disposal of water, conservation and proper use of land in authorized watersheds, rehabilitation of aging dams, and other critical public health and safety concerns. Of this, **\$118 million** will be allocated through the Watershed Rehabilitation Program for the planning, design and construction for USDA-assisted dams to extend their service life and

meet current safety requirements. The remaining **\$500 million** is allocated toward the existing Watershed and Flood Prevention Operations (WFPO) Program under the NRCS, which is a program dedicated to the restoration and protection of watersheds across the U.S. WFPO helps units of federal, state, local, and tribal governments protect and restore watersheds up to 250,000 acres.

### U.S. Army Corps of Engineers (USACE) Infrastructure Priorities

A large portion of funding is set aside for USACE infrastructure, including **\$11.6 billion for construction and \$4 billion for operations and maintenance**.

Specific funding is set aside for coastal storm risk management/hurricane and storm damage reduction projects, inland flood risk management projects and aquatic ecosystem restoration projects that will assist in mitigating the impacts of climate change and creating resilient communities. The USACE recently announced its funding plan for the amounts appropriated through the IIJA. That press release and project list can be found [here](#).

### FEMA FLOOD MITIGATION ASSISTANCE PROGRAM

The IIJA authorizes **\$3.5 billion** over five years in FEMA Flood Mitigation Assistance competitive grants. These grants will provide financial and technical assistance to states and local governments in order to reduce the risk of flood damage to homes and businesses through buyouts, elevation, and other activities.

### Agency Funding to Advance Climate Goals

In addition to grant opportunities for projects that reduce GHG emissions or improve resiliency, the IIJA also provides funding for agency actions that support climate initiatives. Although not available to project sponsors, these investments will allow agencies to repair damaged lands and resources from past events and better prepare for future events.

## Western Area Power Administration's Power Purchase and Transmission Activities

The IIJA provides funding to buffer against Western Area Power Administration's (WAPA) depleted power purchase funding due to predicted drought as a result of climate change. Subsequently, **\$500 million** is allocated over five years for WAPA power purchase and transmission activities.

The remaining **\$118 million** is dedicated to the Watershed Rehabilitation Programs, which fund improvements to aging dams that are reaching the end of their useful life in order to preserve public health and safety.

The funding of these programs will be essential to the resiliency of watersheds in Western and Midwestern states that are predicted to see increasing levels of drought due to climate change.

The IIJA also appropriates **\$300 million** over five years for the Emergency Watershed Protection Program under the NRCS, which funds disaster relief after the incident of a natural disaster by providing erosion and flooding protection, reducing threats to life and property, and restoring the hydraulic capacity of the natural environment to the maximum extent practical.

## National Oceanic and Atmospheric Administration (NOAA)

The IIJA authorizes **\$2.61 billion** for NOAA operations, research, and facilities, as well as **\$180 million** for procurement, acquisition, and construction. This includes specific funding for coastal resiliency, shoreline buffering, and wildfire protection, which will be crucial to mitigate the impacts of climate change and create resilient communities.

Additionally, **\$492 million** is set aside for the NOAA's Coastal Resiliency Fund, which is a partnership with the National Fish and Wildlife Foundation (NFWF) to improve the resilience of coastal communities to flooding and inundation through the restoration of natural ecosystems.

## Wildfire Mitigation

The U.S. Forest Service and U.S. Department of the Interior provide **\$3.4 billion** to fund wildfire mitigation. These funds will be used to reduce the threat of wildfire on federal lands through mechanical thinning, timber harvests, prescribed burns, community wildfire protection grants, and collaborative led projects. The IIJA requires these agencies to create a plan to treat 10 million acres of forestland by 2027 for wildfire risk reduction within the Wildland-Urban Interface and near-critical drinking water sources.

An additional **\$2.1 billion** is authorized for ecosystem restoration under the U.S. Forest Service Good Neighbor Authority, which allows the Forest Service to partner with state forestry agencies for invasive species eradication, cross-boundary management projects, and stewardship contracts.



## What This Means and How We Can Help

The substantial investments authorized through the IIJA will help make our nation’s infrastructure more resilient to extreme weather events caused by climate change, help to reduce emissions that contribute to climate change and support restoration of our natural resources. The funding creates new opportunities to invest in a more sustainable future and requires that project applicants consider how to align their programs with these outcomes.

HDR is prepared to support your programs and projects as you journey through an evolving understanding of climate change, resiliency, and adaptation opportunities. Our balanced sustainable solutions are resource-sensitive and provide private- and public-sector opportunities for equity, economic growth and development. We create resilient, sustainable, quality and diverse spaces that are socially equitable and mindful of natural resources. We consider the broad context of each decision.

The process of integrating sustainability and adaptation into programs and projects can include:

- Development of climate and resiliency (adaptation) plans
- Program planning or master planning
- Vulnerability and risk assessments that can quantify and rate levels of risk so that resilient actions can be accurately prioritized based on levels of identified risk
- Environmental permitting including NEPA and state EIR processes
- Decarbonization, net-zero and climate action planning

Our experienced team of professionals are prepared to support activities including:

- **Project Planning and Policy Development** — HDR can provide advisory and strategy services to state, regional, and local agencies to advance equity in their organizations and develop policy frameworks that position them for funding opportunities.

- **Environmental Justice** — The provision of enhanced and legally defensible environmental justice program/project review and consideration is a cornerstone of HDR’s planning program. HDR can offer NEPA and environmental planning analysis that considers environmental justice issues and incorporates meaningful engagement through every phase of project decision-making.
- **Data Analytics** — HDR can develop scalable and customized tools to obtain, analyze and present data that help to define baseline conditions, inform outreach efforts, and identify potential impacts, inequities, and benefits with potential actions.
- **Sustainable and Resilient Design** — HDR professionals can evaluate project or program opportunities from a triple bottom line perspective, while considering applicable resiliency criteria for the project type and location to create cost-effective, adaptable long-term infrastructure investment.
- **Strategic Communications** — Crucial to the consideration of equitable solutions, strategic communications, including meaningful community engagement, provides a better understanding of communities’ needs, concerns, and opportunities.
- **Funding/Finance Options and Grant Applications** — Many of the new opportunities for funding come in the form of competitive grant programs. Our team can assist in identifying the funding options most conducive to your project needs and support your grant application efforts.
- **Project Design** — HDR has the full breadth of technical professionals to develop projects/systems that appreciate the diverse needs of the populations your project is intended to serve. Through our multidisciplinary teamwork, we ensure that access, safety, and affordability are considered throughout the planning, design, and construction phases of your project.

For more information, please contact:



**Michaella Wittmann**  
Sustainability & Resiliency  
Director  
Michaella.Wittmann@hdrinc.com



**Pam Yonkin**  
Transportation Sustainability  
& Resiliency Director  
Pamela.Yonkin@hdrinc.com



**Nathalie Beauvais**  
Community Planning  
Resiliency Lead  
Nathalie.Beauvais@hdrinc.com



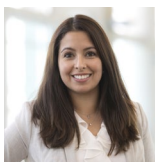
**Marcella Thompson**  
Decarbonization and Climate  
Lead  
Marcella.Thompson@hdrinc.com



**Michael McMahon**  
Senior Hydro-Meteorologist  
Michael.McMahon@hdrinc.com



**Eric Beightel**  
Principal Infrastructure Policy/  
Environmental Strategist  
Eric.Beightel@hdrinc.com



**Janet González Tudor**  
Transportation Operational  
Resiliency Director  
Janet.Gonzalez@hdrinc.com



**Nate Macek**  
Infrastructure Finance  
Director  
Nathan.Macek@hdrinc.com