

2024

# Toolkit for Local Climate Action

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For Mayors By Mayors



## *Letter from the CEO*

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Dear Mayors,

It's in the last mile where projects succeed ... or don't. At Elemental, we deploy climate projects with deep community impact, paying special attention to last mile implementation. We obsess about how we connect innovative climate solutions to meet local community needs—whether its internet reliability to connect solar on a rural home or regulatory approval for a local food marketplace to accept SNAP-EBT benefits or the availability of electricians and technicians to install and maintain new electric vehicle chargers – and we create tools to help others do the same.

Solutions also need champions to ensure they meet local priorities, get built correctly and deliver true community benefits.

**These solutions need Mayors** – and this toolkit is designed to help Mayors be champions for climate action.

Since we first released the Local Climate Action Toolkit in 2022, landmark federal funding programs, like the EPA's Greenhouse Gas Reduction Fund, have been announced and will provide billions of dollars to help cities and mayors unlock the capital to build a healthier, cleaner and more affordable future that puts people first.

We are thrilled to build on that momentum and partner with the African American Mayors Association and the Environmental Defense Fund to release this updated toolkit and to continue to work with Mayors and their teams to help cities — our hubs of innovation and engines of economic opportunity — meet this moment.

With gratitude,

**Dawn Lippert**  
**CEO, Elemental Impact**



## *Dear Mayors,*

We are in an unprecedented time when it comes to local climate action. As a past Mayor and as climate and environmental justice leaders, for us, the historic federal investments through the Inflation Reduction Act (IRA), the Bipartisan Infrastructure Legislation (BIL), and Justice40, are a long-awaited dream come true.

We can't think of a better moment for Mayors to be front and center on climate action. These federal investments are creating fertile ground for a just transition, away from a carbon-based economy, and toward an economy built around renewables and climate-friendly infrastructure. Mayors are poised to plant the seeds.

Mayors, you know the stories of the people in your community. You know which investments your community needs. You can cut through the red tape and make lasting positive change.

This local climate action toolkit will help you:

- Find relevant funding streams
- Plan climate projects with real community benefits
- Learn from fellow cities' policy and project examples
- Get equipped with the resources you need to achieve success

Whether you plan to bring clean energy to buildings, transportation, or your local energy supply; whether you want to renew your stormwater system, cut air pollution, grow apprenticeship programs, or build resilience centers: this toolkit will help you. You can make your community safer, more prosperous, and more sustainable in the face of our changing climate. As you know, there's no time to waste.

Sincerely,

**Jameka Hodnett**  
**Local Climate Action Fellow**

&

**Heather McTeer Toney**  
**Former Mayor, Greenville MS**



## At A Glance: Toolkit for Climate Action

### Get started by exploring action areas:

- Benefits
- Policy examples
- Sample projects

### Dive deep into any action for in-depth information on:

- Grant funding - with a focus on grants that cities can apply for directly
- Policy examples from cities
- Potential technology partners

### Get prepared with bonus sections:

- [Jobs and Workforce Development](#)
- [Deployment Tips](#): Capacity building, finding partners and innovation challenges
- [Beyond Grants](#): More financing tools, including Direct Pay, GGRF and Tax Credits

Mayors know any effort should ideally solve more than one problem. Advancing any of the action areas below will cut pollution and emissions, build resilience, and provide additional community benefits. With historic levels of federal funding now available from the Bipartisan Infrastructure Law (BIL) through 2026 and the Inflation Reduction Act (IRA) through 2031, Mayors can use these funds to meet climate goals and many other community needs as well. Many AAMA mayors have already won federal climate funding - see examples throughout the toolkit.

### Buildings



#### Improve energy efficiency and switch to renewable energy in residential, commercial, and municipal buildings.

*Benefits: Save energy and money, improve indoor air quality, prepare for extreme weather, create jobs installing efficiency and renewables technology.*

*Policy examples: Update building codes; pass time of sale ordinances that require energy use assessment, reporting, and weatherization; expedite permitting and review of green buildings.*

*Sample projects: On city buildings, install solar+ (panels and energy storage); upgrade HVAC systems, install electric heat pumps to replace gas heating and cooling, and use smart thermostats, energy-efficient lighting, and insulation to save energy.*

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### Energy Supply



#### Increase renewables in municipal and city-wide energy sources.

*Benefits: Stabilize energy supply and costs over time, improve local air quality, and create jobs building out renewables.*

*Policy examples: Set up green power purchasing; remove obstacles to renewable energy siting; expedite solar panel permitting.*

*Sample projects: Work with the local utility to improve the electric grid and to set up a [community solar](#) or municipal solar program to give renters and others access to solar savings; work with neighboring cities to set up a [community choice aggregation](#) program to provide local control and cleaner energy.*

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## **Transportation**



**Reduce fossil fuel use by electrifying cars and buses and reducing the need to drive.**

*Benefits: Reduce transportation costs, make streets safer, improve public health with better air quality, expand residents' access to jobs with public transit, and create jobs building bus lanes, bike lanes, EVs, and batteries.*

*Policy examples: Transition fleets to low and zero-emission vehicles; update parking requirements to reduce driving; improve public transit, walking conditions, and biking networks.*

*Sample projects: Electrify the city fleet—municipal cars and trucks, public buses, and school buses; install EV charging infrastructure at local businesses and facilities; paint red transit-only lanes; build out a network of protected bike lanes and sidewalks.*

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## **Water**



**Reduce energy use and emissions by managing water use.**

*Benefits: Reduce flooding risks and water pollution, improve drinking water supply and quality, lower costs, and create jobs building new water infrastructure.*

*Policy examples: Adopt a One Water citywide framework; require water efficiency in code updates; align land use and water management policy.*

*Sample projects: Build green stormwater projects in flood risk areas to absorb rainwater through soil; analyze septic and cesspool needs to prioritize conversion and sewer connection; identify and remove public and private water pipes containing lead.*

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## **Greening & Resilience**



**Increase urban greening, reduce air pollution, and help your community prepare for extreme weather events.**

*Benefits: Improve public health, reduce flooding risks, increase local business revenue and home values, reduce urban heat islands, beautify the city, save lives and property in emergencies, create jobs implementing projects.*

*Policy examples: Develop resilience plans; update building codes for severe weather; empower neighborhoods with citizen emergency response training; plan for compact, walkable development with affordable homes; require greening in new developments.*

*Sample projects: Build resilience centers to provide shelter and power in emergencies; plant trees and landscaping and install cool roofs to reduce urban heat effects; create parks to provide cool safe outdoor spaces.*

*"The Local Climate Action Toolkit is a critical resource for our community as we work towards a sustainable future. It provides valuable guidance and tools to help us reduce our carbon footprint, promote environmental stewardship, and build resilience against climate change impacts. By implementing the strategies outlined in this toolkit, we can create a cleaner, healthier, and more vibrant Mount Vernon for generations to come."*

— Mayor Shawyn Patterson Howard, Mount Vernon, NY,  
and President, African American Mayors Association

## *Policy Tools*

Policy tools available to local leaders include:

1. **Ordinances:** Ordinances are local laws passed by a municipal government, usually through a city council. These laws typically deal with a permanent rule of government of [conduct](#). An ordinance can be enforced — often with a sanction for violation — and can be funded through municipal budgets. State laws vary in how they regulate municipal government procedures, and local leaders must decide on the best policy tool given the context. When possible, we recommend local leaders use ordinances to advance environmental justice and climate action, because ordinances are the strongest available local policy tool.
2. **Executive Orders:** An [executive order](#) or executive directive is an official order from a mayor, usually to the city's departments. A mayor's scope of power and ability to issue executive orders depends on the city's charter. Within a mayor-council form of government, a mayor can [typically](#) issue executive orders as long as their mandates do not interfere with the city council's legislative powers. Executive orders can be reversed by the next mayor and so are somewhat weaker than ordinances, which require a full council vote to change.
3. **Resolutions:** A resolution is a statement of policy or opinion by a city's governing body. Resolutions are not legislative acts; they usually apply only within the municipal government itself to address [special](#) or [temporary](#) issues. For these reasons, a resolution is the weakest available policy tool for climate action. Municipalities using resolutions should complement the resolution with additional policy action.



## *Policy Scope*

Policies can vary by scope of impact. Often, passing a climate policy first for government operations helps pave the way to do the same city-wide.

1. **Government Operations:** City leaders can use these policies to reduce greenhouse gas emissions through government departments and assets: for example, requiring city buildings to be energy efficient. Because cities often have relatively strong authority over their municipal property, cities may face fewer legal challenges with this type of policy.
2. **Community-wide:** City leaders can use these policies to reduce greenhouse gas emissions from residents and business owners in the community: for example, requiring all large buildings throughout the city to be energy efficient.

## Climate Policy in Action

### Ordinances

1. [Existing Buildings Energy & Water Efficiency Program](#) (Los Angeles, CA)
2. [EV Ready Ordinance](#) (Atlanta, GA)
3. [Building Emissions Reduction and Disclosure](#) (Boston, MA)

### Executive Orders

1. [Mayor Harrell Signs Executive Order Directing City Departments to Reduce Greenhouse Gas Emissions from the Transportation Sector and Support Those Most Impacted by the Climate Crisis](#) (Seattle, WA)
2. [Mayor Adams Signs Executive Order to Cut Greenhouse Gas Emissions From City Construction Projects](#) (New York, NY)
3. [Mayor Lightfoot Announces Executive Order to Advance Environmental Justice for All Chicagoans](#) (Chicago, IL)

### Resolutions

1. [City of Austin's Climate Protection Resolution](#)
2. [City of Minneapolis's Comprehensive Plan Resolution](#)
3. [City of El Cerrito's Greenhouse Gas Reduction Target Resolution](#)

*"The City of Little Rock is excited to leverage Elemental's expertise to identify opportunities to advance our sustainability and resilience goals. Through technical assistance, Little Rock will be able to identify and access available funding, with an eye towards reaching 100 percent clean energy to power city operations by 2030, having 50 percent electrical vehicle adoption in our fleet by 2030, and a 20 percent increase in recycling by the end of 2024. This will improve the quality of life for Little Rock residents by moving us towards a cleaner, more sustainable, healthier future while minimizing and mitigating climate risks."*

—Mayor Frank Scott, Jr., Little Rock, AR



## *Jobs and Workforce Development*

### **Job Growth and Worker Demand**

There is tremendous potential for job growth in the nation's transition to a clean energy economy. In fact, that job growth is already well under way:

- Growth: Between August 2022 and the end of February 2024, 523 new clean energy projects were in progress in 47 states and Puerto Rico, totaling over [270,000 new jobs](#).
- Demand: A [LinkedIn report](#) found that from 2022 to 2023, while "green talent" (jobseekers with green skills) increased by 12%, jobs seeking green talent increased by 22%: demand for workers in green jobs grew almost twice as fast as supply.

Local leaders can harness the power of this transition to bring prosperity, resilience, and cost savings to their communities.

- City policies across all topic areas can spur green job growth, whether those policies require energy efficiency upgrades for city buildings or stormwater plantings around new developments.
- City projects can also create new jobs, from painting bus lanes and installing EV chargers, to putting in clean-electricity heat pumps to keep City Hall cool.

### **Federal Funding**

While federal funding programs and incentives are focused on accelerating local job creation and workforce development through required community benefits agreements and project labor agreements, there are still [gaps in direct funding](#) for local governments to support training and reskilling of local workers. Workforce development funding depends largely on the state infrastructure agencies that receive formula funds. It is possible, however, to include workforce development as part of a federal funding proposal on climate, and its thoughtful inclusion can make applications stronger. In addition, many companies and project developers that receive federal funding and tax credits are incentivized and often required to submit community benefits agreements and project labor agreements that commit them to creating local jobs and developing local workforce through apprenticeship and other training programs. This presents another opportunity to partner to support local workforce priorities.

Federal grant programs that directly include workforce development and are open to local governments include:

- [State-Based Home Efficiency Contractor Training Grants](#) (IRA)  
These grants provide financial assistance (totaling \$200M) to states to train contractors on home energy efficiency and electrification improvements.
- [Congestion Mitigation and Air Quality Improvement](#) (BIL)  
The CMAQ program funds transportation projects that improve air quality under the Clean Air Act. The BIL allows funds to go toward workforce development, including pre-apprenticeship and registered apprenticeship programs; and initiatives to address shortages and grow the transportation workforce.
- [Low or No Emission \(Bus\) Grant Program](#) (BIL)  
A small percentage of this funding can be allocated toward workforce development training.
- [Career Skills Training Program](#) (BIL)  
Nonprofits and partners can apply for funding (totaling \$10M) for certification training programs on the installation of energy-efficient building technologies.



## Federal Tax Incentives with Apprenticeship Requirements

The IRA does offer [significant tax incentives](#) for employers who pay prevailing wages and employ registered apprentices on qualifying energy projects. The IRA aims to improve on past clean energy tax credits by lengthening timelines for more long-term investment. Cities that partner with prospective employers on clean energy projects will be well positioned to scale apprenticeship programs that bring jobs and local economic development.

The following [IRA tax credit programs](#) have an apprenticeship requirement:

- Alternative Fuel Vehicle Refueling Property Credit
- Production Tax Credit for Electricity from Renewables
- Clean Electricity Production Tax Credit
- Investment Tax Credit for Energy Property
- Clean Electricity Production Tax Credit
- Clean Electricity Investment Tax Credit
- Energy-Efficient Commercial Buildings Deduction

## How Mayors can Support Apprenticeship Programs

1. Organize around a [vision](#)
  - a. Apprenticeship programs require collaboration between local businesses, education systems, and human services organizations to provide on-the-job training, classroom instruction, and support services. City leaders can help by setting clear apprenticeship goals and expectations for project developers and partners and fostering these partnerships.
2. Build pipelines into public sector employment
  - a. Municipal governments can create public sector apprenticeship programs that provide opportunities for residents, especially in rural areas, and address the challenge of replacing an aging workforce.
3. Set up requirements, incentives, and fees
  - a. Cities can use their procurement authority to encourage or require project developers and vendors to offer apprenticeships, particularly in public works projects.
  - b. Though cities often use broad economic development incentives to create good jobs by attracting employers, customized job training strategies, like apprenticeships, are often more [cost-effective and successful](#).
  - c. Community benefits agreements can include apprenticeship requirements to help meet local employment goals, which the Mayor's office can support through convening and relationship building among partners.
  - d. Cities can fund apprenticeship programs by following examples like Boston's [Neighborhood Jobs Trust](#), funded by real estate developers' fees.



## *Action Areas In Depth*

### **Buildings**

#### Policies

##### Government Operations (Govt)

- A. Set and strengthen energy performance benchmarks for municipal properties.
- B. Require regular energy efficiency reporting and evaluation for municipal properties to identify energy saving opportunities.

##### Community-wide (Comm)

- A. Offer expedited review/permitting process for green building projects that meet LEED building standards and ENERGY STAR certification standards.
- B. Require property owners to weatherize buildings.
- C. Require property owners to conduct building energy assessments that provide tailored recommendations for energy-saving opportunities, and incentives for all commercial and residential buildings at time of sale.

##### Policy Examples

- (Govt) [Energy Management of City Facilities Executive Order](#) – Salt Lake City, UT: Requires city departments to develop and implement energy plans for their buildings. This includes doing energy audits to increase energy savings and using best practices in building operations and maintenance. Also requires annual benchmarking of city facilities to track progress against department and city goals.
- (Govt, Comm) [Existing Buildings Energy and Water Efficiency Ordinance](#) – Los Angeles, CA: This ordinance makes public the annual energy and water use of all all municipal buildings larger than 7,500 square feet, and requires owners of large (20,000 sq ft +) buildings in the city to track and report this data publicly. It also requires action to reduce energy and water use, such as energy audits or retrofits, at least once every five years. There is a fee for failure to comply. [Many cities](#) have similar ordinances.
- (Comm) [Building Emissions Saving Ordinance](#) – Berkeley, CA: To help building owners identify opportunities to reduce energy use, this 2015 ordinance requires property owners to conduct a building energy assessment at time of sale, providing tailored recommendations for energy-saving opportunities and incentives.
- (Comm) [SmartRegs Ordinance](#) – Boulder, CO: In 2010, the city passed a mandate requiring all rental property owners to bring their rentals up to a minimum energy efficiency standard by 2019.
- (Comm) [Energy Efficiency and Weatherization Ordinance](#) – Burlington, VT: This mandates that, at time of sale, property owners must weatherize buildings through air sealing, upgrading heating systems, replacing drafty windows and doors, or insulating walls and attics. It was passed in 2021 to support Burlington's climate goals and [reduce costs for renters](#). The city is considering an update to require this not just at time of sale, but for every code inspection.

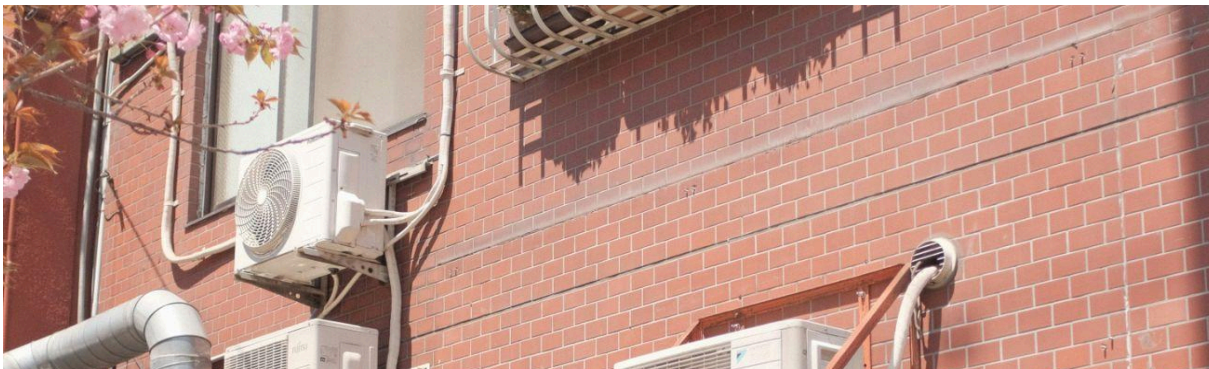


## Funding Sources

- [Assistance for Latest and Zero Building Energy Code Adoption](#) (IRA)  
Purpose: To provide grants to states or local governments to adopt updated building energy codes, including the zero energy code.  
Agency: Department of Energy  
Total amount: \$1,000,000,000
- [Energy Efficiency and Conservation Block Grant Program](#) (BIL)  
Purpose: To assist states, local governments, and Tribes to reduce energy use, reduce fossil fuel emissions, and improve energy efficiency—for everything from building energy audits to creating new bike lanes.  
Agency: Department of Energy  
Total amount: \$550,000,000

## Potential Deployment Partners from Elemental's Portfolio

- [BlocPower](#)  
BlocPower analyzes, finances, and installs energy efficiency and renewable energy technologies in buildings in low-income communities.
- [Community Energy Labs](#) CEL's modern building control solutions make smart energy management and decarbonization both accessible and affordable for community building owners such as school districts and cities.
- [enVerid Systems](#)  
enVerid's technology cleans indoor air in buildings, which allows more air recirculation, reducing heating and cooling needs for greater energy efficiency and cost savings
- [Gradient](#)  
Gradient's window heat pump offers energy-efficient heating and cooling capabilities, all while operating quietly and supporting a more sustainable planet.
- [Kelvin](#)  
Kelvin's smart radiator covers, heat pumps, and thermal batteries save money, reduce carbon emissions, and enable temperature control for apartments in legacy buildings.





## Energy Supply

### Policies

#### Government Operations (Govt)

- A. Increase the share of renewable energy in municipal energy use.

#### Community-wide (Comm)

- A. Create incentives for renewable energy installation, such as property tax exemptions, tax credits, and net metering programs. The feasibility of this policy action depends on [state law](#).
- B. Authorize the implementation of a Community Choice Aggregation (CCA) program. CCAs, enabled by legislatures in [10 states](#) thus far, allow cities to secure lower rates and larger renewable energy portfolios with their utility providers.

#### Policy Examples

- i. (Comm) [Resolution to Achieve Net-100% Renewable Energy by 2032](#) – Salt Lake City, UT: Mayor Biskupski and the City Council adopted a joint 2019 resolution, updating an earlier resolution, with a commitment to 100% renewable energy for the community's electricity supply by 2030.
- ii. (Govt) [100% Renewable Energy Resolution](#) – Louisville, KY: This ordinance sets goals of 100% renewable electricity for city operations by 2030, 100% clean energy for city operations by 2035, and 100% clean energy community-wide by 2040.
- iii. (Comm) [Model Solar Ordinances](#) by the Great Plains Institute: The Great Plains Institute created five model ordinances for local governments in [Illinois](#), [Indiana](#), [Iowa](#), [Minnesota](#), and [Wisconsin](#), addressing ways to encourage solar development, land use, and more. These were updated in 2020 and 2024 to align with their states' energy policies.
- iv. (Comm) [Enabling Solar Energy Ordinance](#) – San Diego, CA: The County of San Diego amended its zoning code in 2010 to allow solar installation, including solar as an accessory use to all Agricultural, Civic, Commercial, Industrial and Residential land uses. In 2023, the city launched an ["instant" all-online permit process](#) to speed solar permitting and installation.
- v. (Comm) [Community Energy Aggregation Program Ordinance](#) – Red Bank, New Jersey: Establishes a Community Energy Aggregation Program that provides an option for residential and non-residential customers to opt for up to 100% renewable electricity.





## Funding Sources

- [Grid Innovation Program](#) (BIL)  
Purpose: To support projects that use innovative approaches to transmission, storage, and distribution infrastructure to enhance grid resilience and reliability.  
Agency: Department of Energy  
Total amount: \$5,000,000,000
- [Smart Grid Grants](#) (BIL)  
Purpose: To increase the flexibility, efficiency, and reliability of the electric power system, by increasing transmission capacity, preventing faults, integrating renewable energy and electrified vehicles and buildings, and demonstrating a pathway to wider market adoption.  
Agency: Department of Energy  
Total amount: \$5,000,000,000

## Potential Deployment Partners from Elemental's Portfolio

- [Blue Planet Energy Systems](#)  
Blue Planet provides energy storage to integrate a range of energy sources to power homes, businesses, and critical infrastructure both with and without the utility grid.
- [Solstice](#)  
Solstice Power Technologies software helps people sign up for community solar and helps developers manage shared solar power, so that residents, local businesses, and city buildings can subscribe to shared "solar gardens" built on unused land such as brownfields.
- [Allume Energy](#)  
Allume makes solar accessible and affordable for multi-family building residents. Its SOLSHARE technology shares energy from a single solar system to multiple units. This behind-the-meter technology requires no change to the standard metering infrastructure or utility's billing system.





## Transportation

### Policies

#### Government Operations (Govt)

- A. Mandate the transition of municipal vehicles to electric or zero-emission fleets. This includes school buses, public transit vehicles, first responder vehicles, and commercial vehicles.
- B. Install charging infrastructure on municipal properties.
- C. Pilot the use of bicycles, such as electric cargo bikes, instead of cars, for municipal needs.

#### Community-wide (Comm)

- A. Expand incentives for EV charging for multi-family homes, employers, and parking garages.
- B. Require EV infrastructure in all new commercial and multi-family construction.
- C. Create a network of bus-only lanes to speed public transit, and create a network of protected bike lanes to offer safe, affordable active transportation.
- D. Remove minimum parking requirements for new developments and require that multifamily building parking is "unbundled," sold separately from housing units.

#### Policy Examples

- i. (Govt) [Green Fleet Executive Order](#) – Denver, CO: Requires Denver City to purchase the most cost-effective and lowest emission vehicles possible for its fleets. The ordinance identifies responsible authorities, establishes clear greenhouse gas reduction targets, identifies fuel efficiency standards in procurement documents, and mandates annual reporting. Outside of the executive order, the city dedicates line-item funding for Green Fleets program implementation.
- i. (Govt) [Electric Vehicle Procurement Program Executive Order](#) – Indianapolis, IN: Requires the City of Indianapolis to purchase or lease electric or plug-in hybrid vehicles for all its passenger vehicle needs.
- ii. (Govt) [Shared Employee E-Cargo Bike Program](#) – Boston, MA: Piloted a program to provide shared electric cargo bikes for city staff to use on municipal business.
- iii. (Comm) [Electric Vehicle Readiness Ordinance](#) – Chicago, IL: Requires all new construction of residential buildings, with five or more units, and onsite parking and commercial properties, with 30 or more parking spaces, to have 20% of any supplied parking spaces Electric Vehicle Supply Equipment (EVSE) ready. Additionally, for all applicable properties, at least one of the EVSE-ready spaces must be accessible to people with disabilities.
- iv. (Comm) [Electric Vehicle \(EV\) Charging Infrastructure Ordinance](#) – Sacramento, CA: Requires new nonresidential, multifamily dwellings, and hotels and motels to provide 20% EV capable charging spaces and at least one installed, operational Level 2 EV charger, effective January 1, 2023 for new construction of three stories or less, and effective January 1, 2026 for new construction of four stories or more. Establishes parking incentives for zero emission carsharing and EV charging infrastructure.
- v. (Comm) – [Parking Minimum Zoning Ordinance](#) – St. Paul, MN: Eliminated all minimum parking requirements to reduce driving, cut emissions, improve walkability, and lower cost of housing.



- vi. (Comm) [Rose Lane Project](#) – Portland, OR: Advanced a network of 20+ transportation projects in 2020, including painting red bus-only lanes, to give buses and streetcars priority over private cars.
- vii. (Comm) [Cycling Safety Ordinance](#) – Cambridge, MA: Mandated the inclusion of separated bike lanes whenever streets are rebuilt and those lanes are part of the city's bicycle master plan; updated a year later to require constructing 25 miles of protected bike lanes in five to seven years.

## Federal Funding Wins

Ten AAMA member cities won Reconnecting Communities funding ranging from \$800,000 to \$3M: Andre Dickens (Atlanta, GA); Brandon Scott (Baltimore, MD); Bruce Harrell (Seattle, WA); Frank Scott (Little Rock, AR); Levar Stoney (Richmond, VA); Quinton Lucas (Kansas City, MO); Randall Woodfin (Birmingham, AL); Rex Richardson (Long Beach, CA); Sylvester Turner (Houston, TX); Vi Alexander Lyles (Charlotte, NC).

Their projects will launch planning and community visioning initiatives, explore deck parks and bridges, remove roadway barriers and freeways, and create bicycle paths and pedestrian amenities—all to bring divided communities back together.

Mayor Elaine O'Neal of Durham, NC won \$5.7M to buy zero-emission battery electric buses to replace older diesel buses, providing clean transit along routes that serve a high percentage of people of color.

## Funding Sources

- [Congestion Mitigation & Air Quality Improvement Program](#)  
Purpose: To fund transportation projects designed to reduce traffic congestion and improve air quality, including shared micromobility and medium- or heavy-duty zero emission vehicles and charging equipment. The program requires prioritizing disadvantaged communities or low-income populations to reduce PM2.5 emissions.  
Agency: Department of Transportation  
Total amount: \$13,200,000,000
- [Clean Heavy-Duty Vehicles Program \(IRA\)](#)  
Purpose: To provide funding to offset the costs of replacing and deploying commercial vehicles with zero-emission vehicles.  
Agency: Environmental Protection Agency  
Total amount: \$1,000,000,000
- [Charging and Fueling Infrastructure Grants \(BIL\)](#)  
Purpose:
  - 1) [Community Charging](#): To install electric vehicle charging and alternative fuel in locations on public roads, schools, parks, and in publicly accessible parking facilities. Prioritized for rural areas, low-and moderate-income neighborhoods, and communities with low ratios of private parking, or high ratios of multi-unit dwellings.
  - 2) [Corridor Charging](#): To deploy electric vehicle charging and hydrogen/propane/natural gas fueling infrastructure along designated alternative fuel corridors and in communitiesAgency: Department of Transportation  
Total amount: \$2,500,000,000



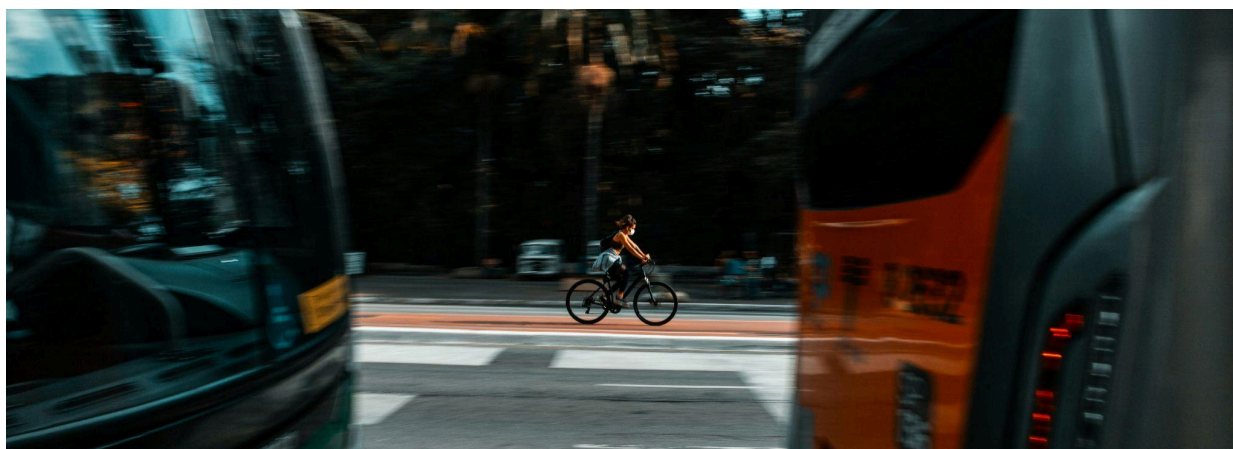
- [Clean School Bus Program](#) (BIL)  
Purpose: To purchase and replace school buses that are clean, zero-emission, alternative fuel vehicles. Funds can also go to charging or fueling infrastructure or fueling and maintenance costs for these buses.  
Agency: Environmental Protection Agency  
Total amount: \$5,000,000,000
- [Low or No Emission \(Bus\) Grants](#) (BIL)  
Purpose: To replace, rehabilitate, purchase, or lease buses and bus-related equipment and to rehabilitate, purchase, construct, or lease bus-related facilities. Provides capital funding for low or no emissions bus projects.  
Agency: Department of Transportation  
Total amount: \$5,600,000,000
- [Reconnecting Communities Program](#) (BIL)  
Purpose: To restore community connectivity by removing, retrofitting, or mitigating highways or other transportation facilities that create barriers to community connectivity, including to mobility, access, or economic development.  
Agency: Department of Transportation  
Total amount: \$1,000,000,000
- [Safe Streets and Roads for All](#) (BIL)  
Purpose: To support planning and implementation of projects and strategies to prevent death and serious injury on roads and streets involving all roadway users, including pedestrians; bicyclists; micromobility users, public transportation riders, and drivers.  
Agency: Department of Transportation  
Total amount: \$5,000,000,000
- [Neighborhood Access and Equity Grant Program](#) (IRA)  
Purpose: To provide grants for planning and construction of transportation projects to improve walkability and safety and provide affordable transportation access, especially in disadvantaged or underserved communities.  
Agency: Department of Transportation  
Total amount: \$3,205,000,000
- [Active Transportation Infrastructure Investment Program](#) (BIL)  
Purpose: To build transportation projects that strengthen safety and improve bicycling, walking, and access to public transit, connecting destinations within and between communities. Includes both grants for planning and design, and for construction.  
Agency: Department of Transportation  
Total amount: \$44,500,000
- See also the [Energy Efficiency and Conservation Block Grant Program](#) (BIL)





## Potential Deployment Partners from Elemental's Portfolio

- [ChargerHelp!](#)  
ChargerHelp! offers on-demand repair of electric vehicle charging stations and is partnering with local workforce development agencies.
- [Dollaride](#)  
Dollaride provides fixed-route transportation in communities underserved by public transit. The company optimizes existing van networks, enables drivers and riders to connect and transact via smartphones, and supports fleet conversion to EVs.
- [FreeWire Technologies](#)  
FreeWire Technologies provides electric vehicle charging beyond the grid, enabling access to clean power wherever and whenever it is needed.
- [Forum Mobility](#)  
Forum is decarbonizing the heavy trucking industry's movement of goods in and out of ports with zero-emission fleet services and charging infrastructure to help rid frontline communities of the disproportionate burden of diesel freight pollution.
- [Numina](#)  
Numina provides data about what's happening at street-level and delivers privacy-first analytics on the behaviors of pedestrians and users of bicycles, vehicles, wheelchairs, and more.
- [Oonee](#)  
Oonee ensures safe bike parking by creating a network of modular bike parking, charging, and service stations so more people can confidently turn car trips into bike trips.
- [SparkCharge](#)  
SparkCharge offers a service for EV fleet managers to charge dozens or even hundreds of vehicles without the need for expensive and lengthy infrastructure upgrades.
- [Swiftly](#)  
The Swiftly platform improves transit system performance, service reliability, and real-time passenger information by harnessing billions of data points with sophisticated algorithms.





## Water

### Policies

#### Government Operations (Govt)

- A. Adopt a One Water framework citywide: integrated planning and inter-departmental coordination for water management that integrates rainwater, stormwater, potable supplies, drainage, groundwater and wastewater, buildings, natural areas and infrastructure and landscape. This framework should reflect the value of all forms of water, aiming for conservation, reuse, and closed-loop systems that optimize the benefits of every drop.

#### Community-wide (Comm)

- Require water efficiency measures (low-flow showerheads, faucets, etc.) as part of building code updates to save water as well as energy.
- Align land use and water management policy (i.e., keeping development out of floodplains, reducing impervious surfaces, and encouraging recharge above aquifers).
- Create a task force and learning lab for appropriate technologies & governance structures for rural water systems, e.g. cesspool conversion, natural treatment systems, etc.

#### Policy Examples

- i. (Govt) [One Water LA Plan](#) – Los Angeles, CA: Adopted an integrated approach to water, managed by LA Sanitation with the Department of Water and Power, with a panel of city and regional stakeholders. The plan improves water supply reliability by increasing stormwater capture, conserving potable water, and expanding water reuse.
- ii. (Comm) [Philadelphia's Green City, Clean Waters](#) – Philadelphia, PA: Adopted a plan to deal with polluting flooding of its combined sewer by using green infrastructure to soak up rain, with greening, rain barrels, permeable pavement, and rain gardens throughout the city. The city added 1,100 green stormwater projects in five years after adopting this approach.
- iii. (Comm) [Healthy Waters Plan](#) – Vancouver, BC: Convened a multi-stakeholder planning and partnership effort with local indigenous First Nations to integrate stormwater, sewage, groundwater, flooding, and sea level rise with the City's long range plans for multi-benefit investments through 2075.

### Federal Funding Win

**Mayor Byron Brown: Buffalo, NY won \$4.5M** to restore shorelines and coastal habitat along Lake Erie, improving ecosystem functions to reduce impacts of flooding and erosion and protect infrastructure.



## Funding Sources

- [Disadvantaged Community Domestic Water Supply Projects](#) (IRA)  
Purpose: To provide domestic water supplies to disadvantaged communities or households without reliable access to domestic water supplies. Only in parts of the U.S. covered by the Bureau of Reclamation: ND, SD, NE, KS, OK, TX, NM, CO, WY, NO, ID, UT, AZ, CA, NV, OR, WA + territories.  
Agency: Department of the Interior  
Total amount: \$550,000,000
- [Coastal Communities and Climate Resilience](#) (IRA)  
Purpose: To support coastal resilience, coastal communities, and conservation, restoration, and protection of coastal and marine habitat and resources.  
Agency: Department of Commerce - NOAA  
Total amount: \$2,600,000,000
- [National Oceans and Coastal Security Fund](#) (BIL)  
Purpose: To support nature-based solutions, planning, design, and implementation that restores, increases, and strengthens natural infrastructure to protect coastal communities while also enhancing habitats for fish and wildlife.  
Agency: Department of Commerce - NOAA  
Total amount: \$492,000,000
- [Drinking Water State Revolving Fund](#) (BIL)  
Purpose: To help water systems and states to achieve the health protection goals of the Safe Drinking Water Act.  
Agency: Environmental Protection Agency and State Revolving Funds  
Total amount: \$50,000,000,000

## Free Technical Assistance to Apply for Funding

- [Water Technical Assistance Programs](#)  
Purpose: To provide free technical assistance to support communities to identify water challenges, develop plans, build capacity, and develop application materials to access water infrastructure funding.  
Agency: Environmental Protection Agency
- [Wastewater Access Gap Technical Assistance program](#)  
Purpose: To provide free technical assistance to support communities to communities with failing septic systems or without existing wastewater infrastructure, and apply for funding to address wastewater needs.  
Agency: Environmental Protection Agency

## Potential Deployment Partners from Elemental's Portfolio

- [Hohonu](#)  
Hohonu provides real-time water monitoring for coastlines, rivers and streams.
- [SOURCE](#)  
SOURCE's Hydropanel uses the power of the sun and advanced materials science to create drinking water. Installed on the roof or on the ground, SOURCE extracts water vapor from the air to deliver drinking water to the tap without needing to lay new pipes.



## 5. Greening and Resilience

### Policies

#### Government Operations (Govt)

- Develop comprehensive [resilience plans](#) that include risk assessment and risk reduction actions in the face of local climate hazards such as flooding, extreme heat, storms, and sea level rise.

#### Community-wide (Comm)

- Update building code requirements to address the risk of natural disasters.
- Launch programs providing citizen emergency response training for residents and creating resilience hubs that provide emergency shelter and power in emergencies and provide ongoing support, especially for underserved communities.
- Plan for compact, mixed-use development and infill to reduce resource use, protect surrounding lands to mitigate wind and flooding, and make walking, biking, and public transportation a more convenient option.
- Require a percentage of new homes to be affordable and enact renter protections to protect community members and preserve existing affordable housing.
- Require new developments to include trees and greening to improve air quality, reduce extreme heat and flooding risk, and create more inviting, walkable neighborhoods.

### Policy Examples

- (Govt) [Virginia Beach City Public Schools](#) enacted beyond-code requirements to make two schools (one of which had been rendered unusable in Hurricane Florence) the city's first shelters capable of withstanding Category 2 hurricanes.
- (Comm) [Resilience Hubs Master Plan](#) – Houston, TX: This 2020 plan identifies a network of resilience hubs to rely on in severe weather and disasters, including storms, floods, loss of power, and extreme heat at the neighborhood level, especially for disadvantaged and under-resourced communities.
- (Comm) [Resilience Hub Expansion](#) – Seattle, WA: In 2023, the city adopted a [budget](#) funding planning and community engagement for overburdened neighborhoods as part of its Green New Deal initiative.
- (Comm) [Empowered Communities Program](#) – San Francisco, CA: Set up as a close collaboration with local community-based organizations, instead of focusing on specific sites, this program was created to fund events that foster social cohesion events (block parties) and support local neighborhood groups to run emergency response trainings.
- (Comm) [Food Resilience Strategy](#) – Baltimore, MD: Baltimore was one of the first U.S. cities to plan for resilience around its food system, convening a working group to create an emergency food access protocol, and collaborating with Johns Hopkins on a [Baltimore Food System Resilience Advisory Report](#), which informed the strategy.



- iv. (Comm) [Tree and Shade Master Plan](#) – Phoenix, AZ: In 2021, after participating in a study that found its tree cover was extremely inequitably distributed, the hottest city in America, set a goal of “tree equity” by 2030. To get there, it is using federal grants to fund neighborhood projects in low-income areas, planting trees and erecting shade structures.
  
- iv. (Comm) [Cool Roofs Program](#) – New York City, NY: Originally all-volunteer, the program has transitioned to workforce development, providing residents with paid training and work experience installing energy-saving reflective rooftops. Building owners can request the low-cost roof coating; it is free for nonprofits and affordable housing.

## Funding Sources

- [Urban and Community Forestry Assistance Program](#) (IRA)  
Purpose: To provide grants for tree planting and related activities.  
Agency: Department of Agriculture - Forest Service  
Total amount: \$1,500,000,000
  
- [Forest Legacy Program](#) (IRA)  
Purpose: To provide grants to states to acquire land and interests in land.  
Agency: Department of Agriculture - Forest Service  
Total amount: \$700,000,000
  
- [Community Change Grants](#) (IRA)  
Purpose: To benefit disadvantaged communities through projects that reduce pollution, increase community climate resilience, and build community capacity to address environmental and climate justice challenges. Open to local governments in partnership with a community-based organization.  
Agency: Environmental Protection Agency  
Total amount: \$2,000,000,000

## Potential Deployment Partners from Elemental’s Portfolio

- [Jupiter Intelligence](#)  
Jupiter Intelligence helps communities understand and quantify their climate risks and inform their strategies to adapt to climate change. Its Jupiter Promise program offers climate analytics at little to no cost to under-resourced communities.
  
- [Mast Reforestation](#)  
Mast gets forest restoration projects up and running in weeks, not years—at no cost to landowners. Services include seed collection, seedling cultivation, site preparation, seedling hand planting, aerial drone-based seeding, and ongoing site monitoring.

## *Air Quality*

A resilient community is a healthy community, and clean air is fundamental to community health. Too many communities—especially those that are historically disadvantaged—struggle with air pollution. Significant federal funding is available to address this.

Federal grant programs to reduce pollution and improve air quality

- [Clean Ports Program](#) (IRA): These EPA grants (totaling \$3B) include two programs: Zero-Emission Technology Deployment Competition (\$2.8B) to deploy zero-emission technology at ports, and Climate and Air Quality Planning Competition (\$150M) for climate and air quality planning around ports. [Other port-related air quality funding](#) is also available.
- [Funding to Address Air Pollution](#) (IRA): These EPA grants are available to air quality management agencies for several types of programs, including multipollutant air quality monitoring (\$50M), “fenceline” monitoring around industrial facilities (\$117.5M), air quality sensors in low-income and disadvantaged communities (\$3M) and [Clean Air Act grants](#) (\$25M) for research, training, planning and monitoring.
- [Congestion Mitigation and Air Quality Improvement](#) (BIL): see CMAQ in Transportation.

### Federal Funding Wins:

- **Mayor Bruce Harrell: Seattle, WA won \$17M** for projects that will expand a terminal and reduce emissions at the Port of Seattle.
- **Mayor Justin Bibb: Cleveland, OH won \$27M** for port electrification at the Cleveland- Cuyahoga port.
- **Mayor Rex Richardson: Long Beach, CA won \$30M** for port electrification at the Port of Long Beach.



## Deployment Tips

### Tip #1: What if We Don't Have a Sustainability Officer?

The reality for many smaller cities is that no one position or person is focused on climate solutions and policies. With the huge opportunity for federal funding over the next few years, it might be time to change that. Here's what other cities and mayors are doing:

- Work with your Council and/or fiscal agency to make the leap and bring on a Sustainability and Equity Officer. One dedicated person can coordinate meaningful action, and can often help your agencies find funding opportunities that more than pay for the position.
- At your next cabinet meeting, ask if any of your administration leaders are interested in climate and environmental justice issues. It might surprise you. Perhaps your Public Works or Budget Office head has been paying attention to local effects of climate change; they could agree to add some sustainability responsibilities and assign a staff member to help pursue federal funds and policy change until you're able to build a dedicated position and/or office.
- Find a partner. Think about your community leaders and local philanthropy — might a local community foundation or a nonprofit in your city want to team up? Several cities have hired sustainability officers on a 50/50 match basis (or even fully paid for the first year) to kick-start city actions on climate resilience. As the impacts of climate begin to have serious health implications, housing security impacts, and workforce opportunities, even non-environmental foundations and organizations might see an opportunity to pull in federal funds to achieve their goals. See if they'll give you a grant or "embed" a dedicated climate and equity staffer in the mayor's office to build capacity for the community. Many cities have set up a mayor's opportunity or innovation fund (through the creation of a 501(c)3 entity) that can help facilitate these local contributions of capacity and funding from partners and philanthropy to support city goals.
- Go virtual. There are numerous free online resources that provide technical assistance to small and mid-sized communities including:
  - Through the [Community Infrastructure Center](#), you can submit project ideas and get customized funding suggestions and project diagnostics.
  - The [Local Infrastructure Hub](#) offers bootcamps on high priority funding opportunities, access to experts, webinars, and other technical assistance and resources.



## Tip #2: Convening, Partnering & Piloting

As you win funding and pass policies, start thinking early about readying for deployment. Here are some considerations as you set up your team, technology and service providers, and community partners.

- **Leverage your convening power:** Bring together relevant departments and community partners to develop shared goals with a mayoral roundtable (see examples below). This alignment ideally begins with the development of your funding proposal and continues as your team submits requests for proposals, plans and executes pilots and larger deployments, and evaluates impacts.
- **Find investors and companies who share your values:** Include equity criteria in your RFP process both in terms of vendor diversity and how project deployment will benefit most underserved residents. Ask bidding companies to articulate community benefits, prioritize building partnerships with local partners, and commit to [principles of equitable behavior](#). Include staff and community reviewers who have equity expertise. If you are seeking match funding, look for investors and philanthropic funding that have a strong commitment to equity, and understand what it takes to build trust with local communities.
- **Pilot, then scale:** You won't scale solutions to your whole municipal building stock or city fleet overnight. As a mayor, you understand that your city may face certain constraints due to existing contracts, capacity and budget constraints, or other factors. Take a phased approach that starts with a pilot in a target community, ideally one that has been striving for social, economic, and climate resilience, and stands to significantly benefit from the investment. Starting with a pilot will allow you and your staff to learn quickly, figure out best practices and challenges, identify partnerships, and then scale more rapidly and with greater confidence and impact.

### Mayoral Roundtables

AAMA and the Environmental Defense Fund (EDF) have collaborated to support mayoral roundtables to build partnerships and find resources to implement policies addressing community needs related to climate, clean energy, and clean transportation. Some recent examples:

- **Mayors Robin Mouton of Beaumont, TX, and Thurman Bartie of Port Arthur, TX** won federal funding (through Port Infrastructure Development Program and Rebuilding American Infrastructure with Sustainability and Equity grants) after a roundtable discussing a regional clean energy partnership, supported by the office of the Secretary of Transportation.
- **Mayor Sharon Weston-Broome of Baton Rouge, LA** gathered local mayors, community leaders, and state officials to discuss strategies to reduce petrochemical pollution in "Cancer Alley," a disproportionately affected 85-mile stretch all the way to New Orleans. This led the city to get assistance from the Harvard Kennedy School of Government and the Robert Wood Johnson Foundation, to protect public health by addressing dangerous environmental conditions at the neighborhood level.
- **Mayor Rex Richardson of Long Beach, CA** focused on the city's transition from oil and gas and environmental challenges in the West Long Beach neighborhood. The roundtable found opportunities to advance goals in both the city's new Climate Action Plan and Mayor Richardson's Grow Long Beach initiative, to shift the city's economy from an overreliance on fossil fuel production—whose revenue is expected to drop—to clean, diversified, economic growth.



### Tip #3: Try an Innovation Challenge

Local leaders can use innovation challenges to spur ideas, attract innovators and rally support to meet community needs. A challenge should start from a shared community priority, then use partnerships, promotion, and competition to find good solutions. But it doesn't stop there. The city can test those solutions with pilots, then leverage federal funding to expand the best approach. Pilots can strengthen grant proposals by demonstrating strong community commitment and pilots ready to scale.

[The Resilient New Orleans Innovation Challenge](#) is a collaborative effort between Elemental Impact and [Finance New Orleans](#) (FNO) to deploy climate technologies in new and retrofitted single-family homes. The initial \$2M fund, launched in March 2024, will finance the development of well-built, resilient homes, help create a local list of providers who can lower costs with resilience services for affordable homes, and offer solutions that are replicable across the U.S.

*"New Orleans has long been a city with a rich tapestry of history and culture but is committed to improving and adapting to new ways of how we better serve our residents. The Resilient New Orleans Challenge demonstrates how we are leveraging green financial strategies and technologies for key climate projects that will lead to a more resilient and sustainable city. We are excited to see our local businesses, entrepreneurs and developers collaborate to bring more climate-friendly, affordable housing to our community. These types of innovative partnerships are helping build a better, cleaner, greener and brighter future for our people."*

—Mayor LaToya Cantrell, New Orleans, LA



## *Beyond Grants: More Financing Tools*

### **1) Direct Pay**

The Inflation Reduction Act (IRA) includes a new provision, [direct pay](#) (also called elective pay), which enables [local governments](#) (as well as states, Tribes, and nonprofits) to receive direct cash payments for federal clean energy tax credits. Cities and other entities are eligible to receive these credits even if they have no tax liability.

Direct pay can be used for [12 total tax credits](#) for:

- Generating clean electricity through solar, wind, and battery storage projects—such as rooftop solar on government buildings or affordable housing—with a bonus if this benefits low-income communities;
- Building microgrids or community solar projects that bring clean energy to neighborhood residents, especially renters;
- Installing electric vehicle (EV) charging infrastructure, especially in low-income areas, or electrifying ports;
- Purchasing clean vehicles for city vehicle fleets.

### **2) Greenhouse Gas Reduction Fund (GGRF)**

The [Greenhouse Gas Reduction Fund](#) (GGRF), administered by the EPA, awarded funds in April of 2024 to selected national and regional nonprofit coalitions including green banks and community lenders. These organizations will then provide financing for projects (starting in late 2024) that reduce emissions and deliver community benefits, particularly to low-income, rural, tribal, energy transition, and other underserved communities. This first-of-a-kind, self-sustaining fund is designed to recycle investments and attract private capital and is made up of three distinct programs.

- [Solar for All](#) (\$7B) provides financial assistance and technical assistance for project deployment—including workforce development—to enable low-income households to access affordable, resilient, and clean solar energy.
- [National Clean Investment Fund](#) (\$14B) provides accessible, affordable financing through national nonprofits, to install clean technology projects.
- [Clean Communities Investment Accelerator](#) (\$6B) provides funding and technical assistance, delivered through a small selection of nonprofits, to build the clean financing capacity of local community lenders working in low-income and disadvantaged communities.

One early example of how GGRF funds can potentially support city efforts is the [Building Decarbonization In-A-Box \(BDAB\)](#) program. Through this effort, a national coalition of green banks and technology providers will support nine cities and counties to rapidly scale up the deployment of clean-energy technologies across millions of small commercial and multifamily buildings.

### 3) Tax Credits, Rebates, Individual Grants, and Loans

Cities can help residents and local businesses take advantage of the IRA's rebates, tax credits, and other grants that encourage investments in renewables and energy savings. In doing so, cities can reduce the cost of advancing citywide climate action goals.

Tax credits are available now for:

- People and businesses buying new or used [clean vehicles](#) (electric or fuel cell cars or trucks);
- People buying [new clean energy equipment](#) for their homes, such as solar panels, solar water heaters, or battery storage;
- Contractors who build new [energy efficient homes](#);
- Individuals and businesses investing in [renewable energy projects](#) or [renewable electricity generation](#); and
- Building owners who invest in [energy efficiency improvements to commercial buildings](#)

Rebates will be available through two programs: home efficiency rebates and home electrification and appliance rebates. The latter will be provided at "point of sale" in stores, enabling purchasers to save money immediately upon purchase. The approach for home efficiency rebates is still being planned. All rebates go through state energy offices; [these are being set up and should be available this year](#) (2024).

Grants are also available for individuals:

- The [Home Energy Rebates Program](#) (IRA) provides funds (\$8B) in two programs, [Home Efficiency Rebates](#) and [Home Electrification and Appliance Rebates](#), that are available to homeowners and owners of multifamily properties. These grants are going out through state energy offices; see link for each [state's status](#).
- The [Weatherization Assistance Program](#) is another useful resource.

Grants and loans are also available for owners of public or affordable housing through the [Green and Resilient Retrofit Program](#) to improve energy and water benchmarking and efficiency, improve indoor air quality, cut emissions, store energy, and enhance resilience.

*"It starts with understanding that economic progress and environmental progress are not mutually exclusive. It's imperative that we do both, that's your pathway forward. When you're doing big infrastructure projects like in the port there are a lot of interests there - labor interests, environmental, community, obviously private sector, business interests. You find the most project progress when the interests intersect."*

—Mayor Rex Richardson, Long Beach CA



Interested in exploring partnership opportunities  
with Elemental or our portfolio companies?

Get connected at [policylab@elementalimpact.com](mailto:policylab@elementalimpact.com).

