

AMERICAN CITIES CLIMATE CHALLENGE

Over Two Years, 25 Cities and Their Mayors Demonstrate Major Climate Wins and Emissions Reductions Are Possible

As talent and innovation hubs, American cities are uniquely positioned to take bold action against climate change. When former president Trump withdrew the United States from the Paris Agreement—making it clear that climate change was not a federal priority—American cities did just that: mayors stepped up and faced the challenge head-on.

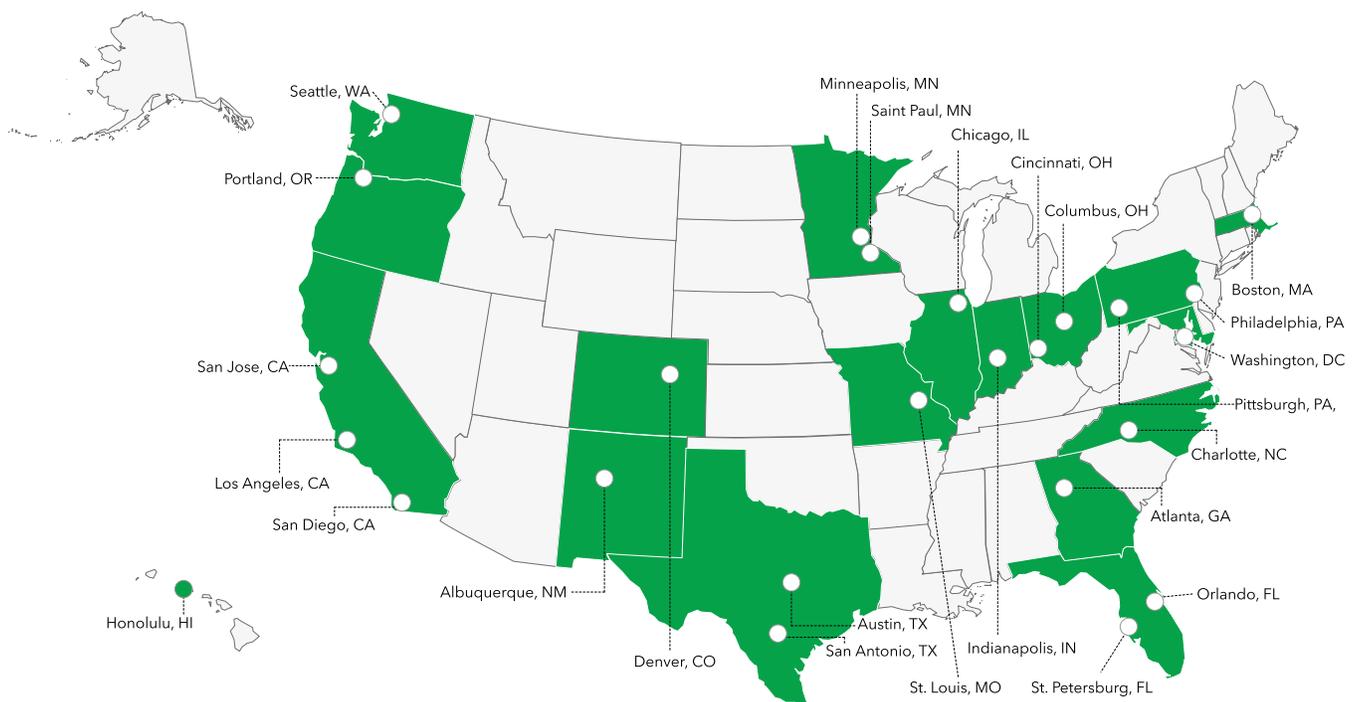


American Cities Climate Challenge

Launched in 2019, the Bloomberg Philanthropies American Cities Climate Challenge (the Climate Challenge) was created to provide powerful resources and support to 25 of the largest U.S. cities in their fight against climate change. Cities account for an overwhelmingly large percent of global carbon emissions, primarily through the high-emitting transportation and buildings sectors where mayors have real power to enact change. The Climate Challenge aims to enhance the good work already being done by mayors across the United States and to support their progress toward equitably and holistically meeting America's climate targets.

Now the Biden administration has embraced climate action on the federal level, drawing on policies and innovative solutions test-driven at the city and state level. And they'll need such city-level actions: research from the program America Is All In found that cities and other non-federal actors have the potential to deliver 37 percent of the reductions needed to hit the new Paris goal.¹ At the same time, we know the stakes are even higher. The climate is changing at an accelerating pace, bringing catastrophic consequences for our planet and its inhabitants.² The 25 cities of the American Cities Climate Challenge will continue to innovate, test what works, and help to maintain momentum as climate policy expands and evolves at the federal and international level.

The 25 Cities of the American Cities Climate Challenge



CLIMATE CHALLENGE CITIES ON TRACK TO COLLECTIVELY REDUCE EMISSIONS BY 32 PERCENT IN 2025

With support from the Climate Challenge, 25 cities set out to show how bold, local action can have an outsized impact on climate change and can improve people's lives in a real way. Even during the global COVID-19 pandemic, Climate Challenge cities rose to the occasion and demonstrated that the fight against climate change is also a fight for public health, economic recovery, and social justice. Two years later, these 25 cities have tested and implemented successful climate policies and programs spanning the transportation, buildings, and energy sectors that cities, states, and the federal government can learn from.

Together, these 25 diverse cities across the political spectrum have passed 54 major buildings, energy, and transportation policies and launched 71 new climate programs and initiatives.³ In total, the work of the Climate Challenge across 25 cities will reduce CO₂ emissions by 74 million metric tons (MT) from 2020 through 2030, compared to a business-as-usual scenario.⁴ Notably, when evaluating the combined work of all cities, including action taken outside of the Climate Challenge, cities are collectively on track to reduce emissions by 32 percent below 2005 levels by 2025, which will beat the 2025 Paris Agreement goal of a 26 to 28 percent reduction.⁵

74

MILLION MT OF CO₂
REDUCED
THROUGH 2030



54

MAJOR BUILDINGS,
ENERGY, AND
TRANSPORTATION
POLICIES PASSED



MAYORS DELIVERED

CHANGING MARKETS, REDUCING EMISSIONS, AND IMPROVING
QUALITY OF LIFE IN THEIR COMMUNITIES



MORE THAN

800 MW

OF RENEWABLE
ENERGY UNDER
CONTRACT
OR PENDING



11,481

NEW ELECTRIC
VEHICLE CHARGERS
INSTALLED



MORE THAN

800

RESIDENTS TRAINED
OR UPSKILLED
IN GREEN JOBS

Moreover, the Climate Challenge has shown that cities can be innovators and leaders of a broader climate agenda—piloting projects, innovating cross-sectoral solutions, and developing new approaches to community partnerships to drive a more equitable economic recovery and sustainable future. For example, the city of Denver passed a ballot measure that established a sales-tax increase that will result in an estimated \$40 million in annual revenue to fund climate action projects, with half of the money specifically earmarked for the city's most vulnerable communities.

This is the “decade of action”—our last chance to avoid the worst impacts of the climate crisis—and we don't have a moment to lose. In response, President Biden has committed to a 50 percent reduction in U.S. emissions by 2030. Cities—which hold the majority of the U.S. population and whose mayors and local governments are more nimble and better able to implement bold policies—are on the front lines of climate action, driving the change we need. These 25 cities of the Climate Challenge validate the contributions that cities across the country have made and will continue to make to keep communities safe and avoid the worst impacts of climate change. Based on this work, we should look to cities to support states and the federal government in achieving our national emissions goals.

Climate Challenge Cities' Total Emissions Reductions Projected to Surpass Paris Target*

Paris Agreement 2025 Reductions Target
26-28% reduction in carbon emissions from
2005 levels

26-28%

**Climate Challenge Cities Projected 2025
Reductions** 32% reduction in carbon
emissions from 2005 levels

32%

*including emissions resulting from actions taken outside of the Climate Challenge

TRANSPORTATION SECTOR: 31 POLICIES AND 41 PROGRAMS

CLIMATE CHALLENGE CITIES TRANSFORMED THEIR STREETS, RAISED NEW REVENUE FOR TRANSIT, INCENTIVIZED LOW-CARBON MOBILITY, AND ACCELERATED VEHICLE ELECTRIFICATION.

The 25 Climate Challenge cities are working to help residents get around without getting in their cars, promoting active modes of transportation, and putting clean cars on the road—all while cutting planet-warming emissions and improving public health. Transportation provides access to everything that makes our cities vibrant—jobs, family and friends, education, health care, and recreation—which creates opportunities to build diverse and powerful coalitions for bold climate action on transportation.

Transportation Sector Highlights*



510

MILES OF NEW OR
IMPROVED BIKE LANES



75

MILES OF
SIDEWALK



37

LANE MILES OF BUS/
TRANSIT IMPROVED



1,136

NEW EVs
IN CITY FLEETS

* Aggregate impact based on data reported by city staff and compiled by Climate Challenge staff and partners. Data as of June 30, 2021. Fleet electric vehicles compiled by the Electrification Coalition as of June 30, 2021.



PROGRAM ACHIEVEMENTS

Transforming Streets for Public Transit

- Nine cities and their public transit agencies rolled out the red carpet, painting dozens of miles of bus priority lanes to make sure public transit is a fast and convenient way of getting around.

Creating Better Biking and Walking

- The pandemic presented transportation challenges and created new priorities. The majority of cities limited car traffic on certain streets to create safe and comfortable spaces for residents to walk and bike to essential jobs and for exercise and recreation.
- Ten cities redesigned their streets with new or improved bike lanes and sidewalks to make it easier for residents to travel without cars.

Accelerating Vehicle Electrification

- Boston and the Twin Cities launched innovative new electric car sharing programs for underserved communities to improve transportation access.
- Mayors across the Climate Challenge spearheaded new electric vehicle (EV) readiness ordinances and walked the talk by taking steps to electrify their own city fleets.

Winning Funding for Better Mobility

- Cincinnati and San Antonio saw major ballot-measure wins to provide funding for better public transit.
- Cities and their partners advocated for emergency relief for public transit in federal stimulus packages, resulting in \$69 billion in lifeline funding to keep trains and buses running during the pandemic and into the recovery.

Putting Equity at the Center of Transformative Policies

- Seattle, Los Angeles, Portland, OR, and Washington, DC, conducted equity analyses, built community partnerships, and took steps to codesign transformative policies like congestion pricing and zero-emissions areas with community leaders.

BUILDINGS AND ENERGY SECTOR: 23 POLICIES AND 30 PROGRAMS

CLIMATE CHALLENGE CITIES INCREASED RENEWABLE ENERGY FOR A CLEANER ELECTRICITY GRID, IMPROVED BUILDING ENERGY EFFICIENCY, AND PHASED OUT FOSSIL FUELS.

Buildings—from high-rise office buildings to apartment complexes to single-family homes—are responsible for a significant portion of all U.S. carbon emissions, making them a key area of future emissions reductions through building electrification and energy efficiency policies. Moreover, many low-income communities of color live in substandard housing located dangerously near fossil-fuel-run power plants that generate the electricity to heat and cool those buildings. In response, Climate Challenge cities are taking steps to create more housing units that are affordable, energy efficient, and have clean electric heat and hot water.

Buildings and Energy Highlights*



400

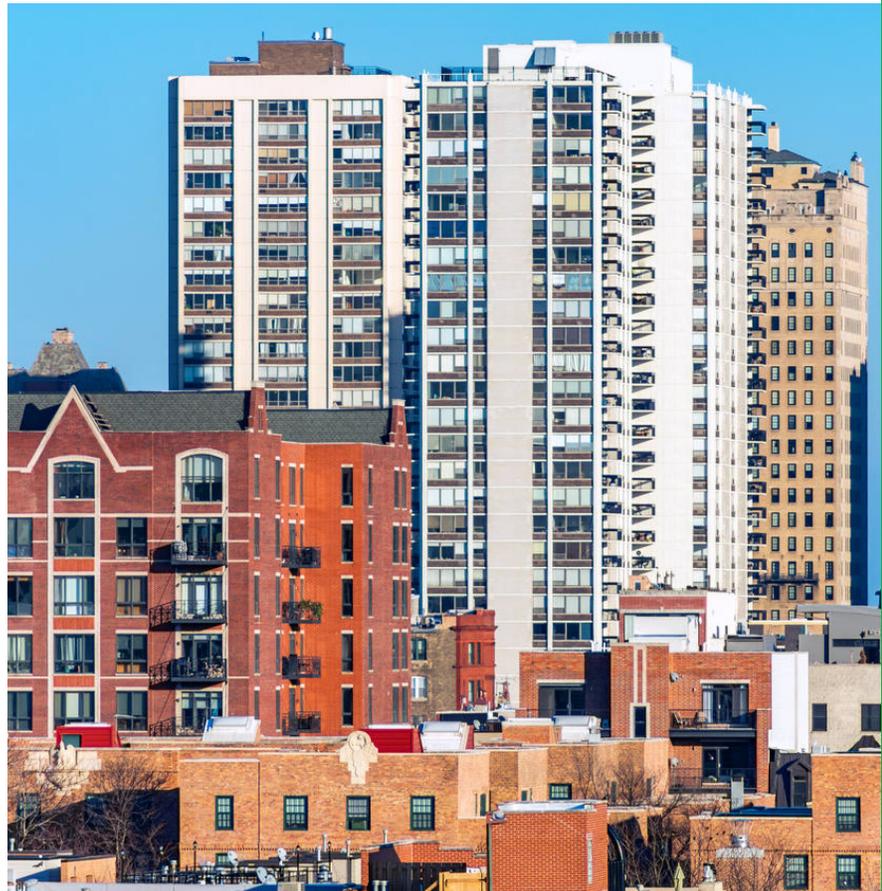
NEARLY 400 MILLION SQUARE FEET
COVERED BY NEW BENCHMARKING
POLICIES



37,000+

OVER 37,000 ENERGY AUDITS CONDUCTED

* Aggregate impact as reported by city staff and aggregated by Climate Challenge staff and partners. Data as of June 30, 2021. Renewable Energy compiled by RMI and the World Resources Institute as of August 24, 2021.



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PROGRAM ACHIEVEMENTS

Improving Renewable Energy Procurement

- Nearly half of the cities procured renewable energy using tried-and-true purchasing and financing methods, helping to set a nationwide record for local government renewable energy procurement in 2020.
- A handful of cities included new workforce development programs as part of local renewable energy procurement requirements to boost local economies for an equitable recovery.

Advancing Energy-Saving Building Policies for Existing Buildings

- Four cities passed policies that require building owners to meet performance targets by actively improving their buildings over time, with interim targets that drive energy savings and emissions reductions.
- Four cities passed policies that significantly improve the energy performance of municipally owned buildings.
- Climate Challenge partners developed new frameworks to guide cities in integrating equity into benchmarking and performance policies.

Adopting Reach Codes for New Construction

- Three cities passed reach codes—which provide standards for additional energy savings beyond current state requirements—incorporating EV charging, solar, and electrification readiness opportunities for new construction.

Accelerating building electrification

- Climate Challenge partners, such as those in Seattle, co-created new best practices for advancing building electrification initiatives that are responsive to the economic disparities exacerbated by the pandemic.

METHODOLOGY: THE IMPACT ANALYSIS MODEL

The American Cities Climate Challenge takes a data-driven, empirical approach to evaluating policy options to meet climate goals. Policy modeling is used to identify CO₂ emission reductions in the building and energy and transportation sectors for each of the 25 participating cities. This model—the impact analysis model (IAM), which was developed for the Climate Challenge—projects emission impacts from any one or a combination of 35 policy actions. Each city’s IAM is customized to its unique baseline and fundamental characteristics, such as miles traveled, square feet of buildings, and carbon intensity of the electric grid. While the model’s policy options are consistent across cities, the implementation levels are input variables that automatically calibrate and compile to calculate new emissions trajectories out to 2030.⁶

For each participating Climate Challenge city, the IAM brings thousands of data points together to evaluate where a city has been, where it is now, and where it is likely to go in the coming decade.⁷ The IAM was developed to support impactful carbon-reducing policy development in the 25 major U.S. cities in the Climate Challenge. Today, these cities are on track to exceed the Paris Agreement target of a 26 to 28 percent cut in emissions from 2005 levels.

The IAM is unique in its ability to rapidly evaluate carbon reduction potential for dozens of actions for any participating Climate Challenge city and comes packaged with the necessary baseline data, allowing the city to easily assess the impact of specific policy options, including accounting for the interactions between any combination of policies. These data have helped the Climate Challenge cities focus and refine their commitments using city-specific calibrated tools. In specific cases, modeling also includes state-level impacts where cities have engaged in regional or statewide policy processes such as utility Integrated Resource Planning and state legislation.

ENDNOTES

- 1 We Are Still In and America’s Pledge, “We Are Still In to Deliver on America’s Pledge: A Retrospective” September 2020, <https://www.americaisallin.com/wp-content/uploads/2021/02/we-are-still-in-retrospective.pdf>.
- 2 Intergovernmental Panel on Climate Change, “Summary for Policymakers,” in: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change, https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf.
- 3 Policies and programs as aggregated by Climate Challenge staff. Data as of September 22, 2021.
- 4 In some cases, city action has meaningfully influenced state or regional level policies or programs, the impacts of which we include in this calculation of 74 million MT.
- 5 2025 emissions are projected to be 83 million MT CO₂ per year less than 2005 emissions.
- 6 Broadly characterized policies, such as expanding the high-frequency public transit network, increasing the EV charging infrastructure, adopting building performance standards, and creating community solar projects, are a few examples that may be implemented in different ways. Policy options’ potential is based both on experience and on research into many options for reducing emissions from the buildings and transportation sectors. Nearly 150 research studies build the empirical backbone of the model, which additionally underwent peer review before being deployed.
- 7 Reference case emissions are projected by applying national and regional trends to each city, derived from the U.S. Energy Information Administration’s Annual Energy Outlook, <https://www.eia.gov/outlooks/archive/aeo17/>. Other data are described extensively in the Climate Challenge IAM Annotated Bibliography.