

## **Mayors Leading the Way on Climate: How Cities Large and Small Are Taking Action Alliance for a Sustainable Future (2018)**

*Note: Vote Climate has summarized the above report. This report does not discuss social equity goals. For the full report: <https://www.c2es.org/document/mayors-leading-the-way-on-climate-2018/>*

### **About the Survey**

The U.S. Conference of Mayors and the Center for Climate and Energy Solutions have established an alliance to help cities and businesses strengthen partnerships toward mutual sustainability and climate goals. A central part of the work is to assess the actions and needs at the city level to help set priorities and identify opportunities. Its 2018 sustainability questionnaire was designed to determine innovative practices in key local policy areas, identify trends, and define opportunities where additional assistance may be needed. The responses of more than 150 American cities provide a snapshot of local action and potential.

The questionnaire was sent in July 2018 to all mayors who represent cities with populations of more than 30,000 and other service city members of the Conference of Mayors, numbering more than 1,400 cities in total. By August 6, 2018, 158 cities from 39 states had provided answers to all or part of the questionnaire. The responding cities represent a broad geography and range in size from 3,906 (Lambertville, NJ) to 8.5 million (New York City), and collectively represent more than 50 million Americans. This questionnaire will be sent out annually to monitor city efforts to support local climate and sustainability efforts.

For the complete report, visit

#### **CITIES ARE FEELING CLIMATE IMPACTS AND ACTING**

- 95 percent of cities have experienced a change related to at least one climate impact in the past five years. The most prevalent changes cities reported during this time include heavy rain events or inland flooding (76 percent of cities), heat waves (65 percent), and drought (51 percent).
- Over the last 12 months, 60 percent of cities have launched or significantly expanded a climate initiative or policy, and this pace is expected to continue in the coming year.

#### **CITIES ARE TAKING ON TRANSPORTATION EMISSIONS**

57 percent of cities have a policy or program for public electric vehicle (EV) charging stations, with an additional 22 percent considering such action. This shows an interest in providing the infrastructure necessary for clean vehicle deployment.

#### **CLEAN AND RENEWABLE ENERGY ARE A GROWING PRIORITY**

- More than half of cities (54 percent) have a renewable energy goal, and an additional 18 percent are considering setting a goal.
- 65 percent of responding cities currently procure renewable electricity for municipal operations. 27 cities cover

30 percent or more of city government needs through renewable sources, an apparent increase from 2017 results. 8 cities cover all their needs with renewable sources.

- 51 percent of cities help citizens and businesses adopt renewable electricity options. An additional 13.5 percent of cities are considering offering such support. Renewable policies and programs for residents and the private sector appear more common in cities with citywide renewable energy goals.

### **CITIES ARE PROMOTING EFFICIENT BUILDINGS**

- More than half of cities have policies or incentives for new and existing commercial and residential buildings.
- 23 percent of cities support or require energy benchmarking of commercial buildings, an emerging local policy strategy.

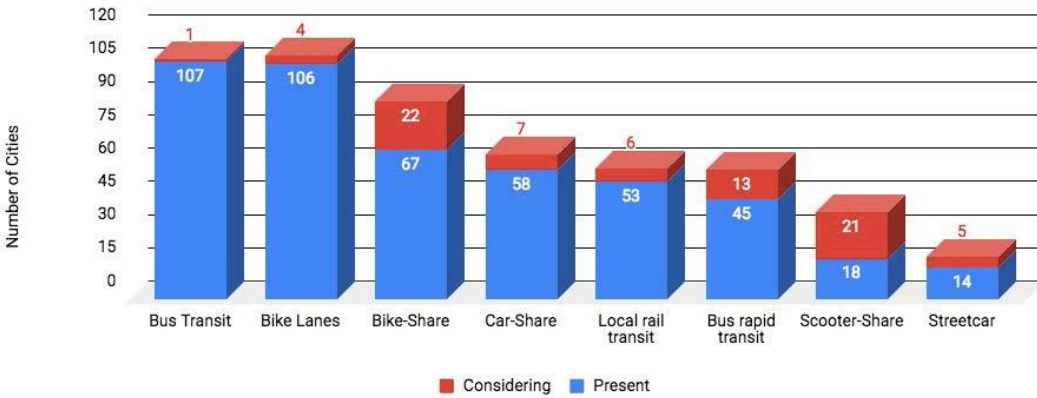
### **CLEAR INDICATIONS OF GROWING OPPORTUNITY FOR VITAL PARTNERSHIPS**

- 90 percent or more of cities are partnering or interested in partnering with other local governments in pursuit of transportation, renewable energy, and energy efficiency solutions.
- More than 83 percent of cities are partnering or interested in partnering with businesses in pursuit of transportation, renewable energy, and energy efficiency solutions.
- On a scale of 1 to 5, with 5 being excellent, cities rated highest their utility partnerships around energy efficiency, with a score of 3.7. Partnership scores for renewables and low-carbon transportation were slightly lower, both scoring 3 out of 5.
  - The private sector and nonprofit community are playing a vital role in supporting local leaders. Cities report strong collaborations already established, and also indicate real opportunities for new and expanded partnerships with other local governments and businesses to advance climate solutions. Increased collaboration will help more cities achieve broader implementation, a strategy the Alliance for a Sustainable Future is designed to facilitate.

### **COMMUNITY TRANSPORTATION**

**The most common way cities promote alternative transportation is through bus transit systems and bike lanes, with more than 100 cities reporting the presence of each (Figure 7).** While local rail transit, bus rapid transit, bike-share and car-share services are found in cities of all sizes, they are far more common in large cities. Scooter-shares, a recently introduced service, are reported in 18 responding cities—mostly those with populations greater than 400,000.

Figure 7. Transportation Options In Cities



**INCENTIVIZING COMMUNITY ADOPTION OF ELECTRIC VEHICLES**

**Charging Infrastructure**

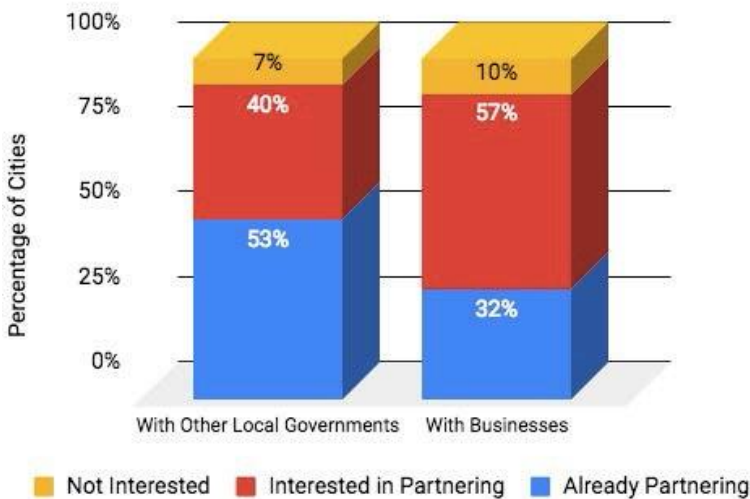
Public and private charging infrastructure is

vital to a functioning electric vehicle network. Fifty-seven percent of cities have a policy or program for public electric vehicle (EV) charging stations, with an additional 22 percent considering such action. One in five cities does not have a policy or program to install public charging infrastructure but these are mostly smaller-sized cities.

Nearly half of cities (49 percent) have policies or programs that promote private charging infrastructure, and an additional 20 percent are considering such action.

Ninety-three percent of cities are either interested in partnering or are already partnering with other local governments in pursuit of transport solutions.

Figure 8. Partnerships to Advance Transportation Solutions



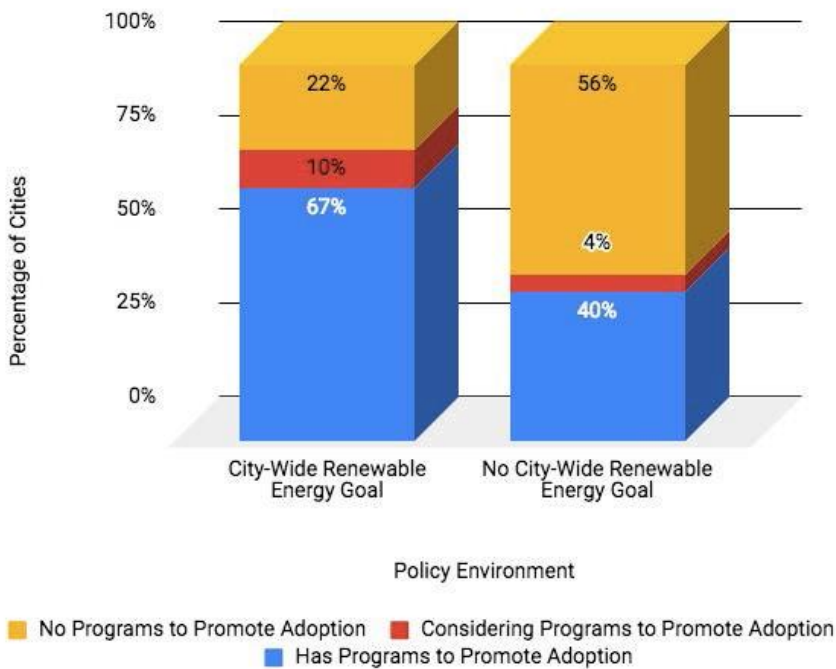
Similarly, 90 percent of cities are partnering or interested in partnering with local businesses (Figure 8). This means that opportunities to form partnerships are widespread and, when compared with 2017 results, it is clear that interest in partnerships remains high.

**RENEWABLE ENERGY**

Energy costs represent a substantial expense for city governments. **Together, 106 responding cities spend more than**

**\$1.6 billion annually on electricity.** For cities pursuing emission reductions goals, fuel sources for electricity generation also represent an area of opportunity. The questionnaire requested information about municipal and city-wide targets for renewable electricity as well as procurement and policy approaches.

Figure 11. Presence of Community-Facing Policies and Programs for Renewable Energy



More than half of cities (54 percent) have a renewable electricity goal, and an additional 18 percent are considering setting a goal. While the targets vary in ambition, cities appear to share common strategies to meet them. Based on written responses, cities expect to achieve their goals largely through a mix of on-site renewable energy generation, renewable energy certificates (RECs), and power purchase agreements (PPAs).

**Thirty-seven percent of cities have a citywide renewable energy goal, and an additional 19 percent are considering setting one.**

Fifty-one percent of cities have policies or programs that help citizens and businesses choose renewable electricity options. percent of cities are considering offering such support. **Renewable electricity policies and programs for residents and the private sector appear more common in cities that have set citywide renewable energy goals (Figure 11).** Property-assessed Clean Energy (PACE) financing and CCA programs were commonly reported as the type of local program/incentive to promote renewable electricity adoption by the community.

More than half of cities are interested in partnering with other local governments and businesses in pursuit of renewable energy solutions. Additional cities already have partnerships to bring the combined amount to almost 90 percent of cities that are either interested or already engaging in partnerships with businesses or other governments.

## ENERGY EFFICIENCY

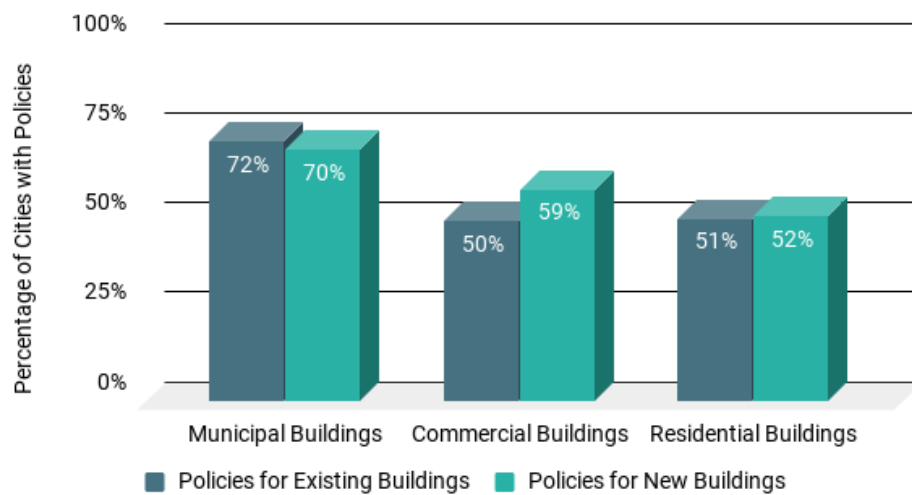
It is estimated that commercial and residential buildings are responsible for approximately 40 percent of the U.S. carbon dioxide emissions. Unlike efforts to reduce vehicle emissions which usually require substantial government investment in transit as well as encouraging people to use alternative transportation options, most cities have some control over local building codes for both new and existing buildings. For these reasons, many cities are looking to increase energy efficiency for both public and private buildings.

## POLICIES FOR COMMERCIAL AND RESIDENTIAL BUILDINGS

**More than half of responding cities have established energy efficiency policies or incentives for new and existing commercial buildings.** Cited policies include advanced building and energy codes; requirements for specific upgrades, energy performance levels, or third-party certifications; participation in energy benchmarking programs; and financing programs to support investments. When mandatory requirements are in place, building size (e.g., greater than 25,000 square feet) serves as a common threshold for buildings that must report.

Policies for new commercial buildings are least-reported in medium sized cities (45 percent), in comparison to large and small cities (67 percent and 63 percent, respectively). However, roughly one quarter of medium-sized cities reported that they are considering policies or incentives for new and existing commercial buildings. This interest level is higher than reported by large and small cities and suggests that medium-sized cities may be an area of growth in the coming years.

Figure 13. Presence of Energy Efficiency Policies for Buildings



Half of cities have established energy efficiency policies or incentives for new and existing residential buildings (Figure 13). For existing residential buildings, this rate is consistent across city size categories. There is greater variability for the presence of policies or incentives for new residential buildings, with medium-sized cities lagging behind large and small cities.

Cities offer a variety of policies and incentives to improve residential energy efficiency. These include rebates, financing programs for home improvements (including PACE programs), updated building codes for new buildings and/or major renovations, and voluntary home energy audit programs. In addition, many cities reported their focus on enforcing statewide energy codes as their primary strategy.

Energy benchmarking is an emerging local policy strategy that involves energy use data reporting by buildings—typically commercial buildings of a certain size—and making it publicly available. The approach facilitates energy performance tracking of buildings, supports decision-making for efficiency investments and creates a local market for high-performing buildings.

**Currently, 23 percent of responding cities support or require energy benchmarking of commercial buildings.** More specifically, voluntary benchmarking is supported by 18 cities and mandatory benchmarking requirements are in place in 23 cities. Large cities are leading in adoption of these policies; however, nearly one third of cities in each size category are considering benchmarking programs in the future.

**Fifty-eight percent of cities are interested in partnerships with businesses to advance energy efficiency solutions, a practice already underway in 28 percent of responding cities.** Notably, every large city that responded to the survey question indicated interest in or current partnerships with the business community.

What do partnerships to advance efficiency solutions look like? Current activities include participating in sustainability commissions, designating local “green” businesses, and engaging chambers of commerce and utilities. Cities noted many opportunities to establish partnerships that link government-led renewable energy programs with energy efficiency activities; lower the costs and barriers to energy efficiency; develop a revolving fund to allow business easier access to capital for investments; and expand campaigns and programs to target local businesses.

**Half of cities are interested in energy efficiency partnerships with other local governments, an approach already underway in 36 percent of responding cities (Figure 14).** New partnerships are likely to occur in the same way that cities already in partnerships approach them; through regional alliances and councils, peer networks and nationwide initiatives.

## **STRATEGIES & COLLABORATION TO SUPPORT ACTION**

### **PARTNERSHIPS WITH THE PRIVATE SECTOR**

As noted throughout this report, cities display overwhelming interest in partnering with businesses to advance energy efficiency, renewables, and low-carbon transportation. To facilitate the development of new partnerships, responding cities described the specific ways the private sector could support the city’s climate goals. The suggestions below create a picture of how city governments view the role of business:

Partner with the city to

- develop and execute the city’s sustainability plan
- identify climate vulnerabilities, develop and identify adaptation strategies, outcomes, metrics, and measurement tools.

Invest in public transportation, resilient infrastructure, energy efficiency, and renewable energy

Improve company operations by

- setting company goals
- eliminating fossil fuel use in operations
- participating in Commercial Property Assessed Clean Energy (C-PACE) programs
- promoting compliance with design and construction above current standards

- adopting energy efficiency and renewable energy, and promoting the use of EVs
- promoting climate action among employees; incentivizing public transport and proximal housing for employees.

#### Provide

- in-kind services and expertise
- funding for private projects (e.g. solar or efficiency loan products)
- case studies of successful business-facing local/state policies in other communities.

#### Support adoption and implementation of new state and local climate policy

#### Lead by example through

- incubating, piloting, and scaling new technologies
- creating a culture where green business practices are expected (e.g. green business awards, educating customers about company's actions)
- convening to encourage and promote a low-carbon, conscious economy
- communicating the role of businesses and residents addressing carbon pollution.

#### Improve the community by

- planting trees on private property to increase the urban tree canopy, reduce urban heat island impacts, mitigate stormwater runoff, and reduce energy use, especially in low-income neighborhoods
- building "in-fill" development in the city
- developing and enhancing walkable, family-friendly neighborhoods. This will help reduce energy consumption and carbon emissions from suburban commuting to city-based jobs, better utilize existing infrastructure, and take development pressure off green space outside the city.

## **PARTNERSHIPS WITH UTILITIES**

Cities were asked to score their partnerships with electric utilities on a scale of 1 to 5 in the areas of renewable electricity, energy efficiency, and low-carbon transportation. On average, cities rated highest their utility partnerships around energy efficiency, with a score of 3.7. Scores for renewables and low-carbon transportation were slightly lower, both scoring 3 out of 5. Across all categories, large cities reported slightly better utility partnerships.

These findings are similar to 2017 responses, with a slight improvement.

## **NEW ACTIONS**

Cities across the United States are expanding and undertaking new climate initiatives and policies. Many of these activities produce co-benefits that will make cities more livable, such as traffic signal synchronization to reduce idling, efforts to extend low-carbon solutions to low-income communities, community resilience assessments, and tree canopy improvement programs.

## **TRANSPORTATION**

In setting a baseline for municipal fleets in 2018, it is clear that conventional gasoline and diesel vehicles dominate, representing opportunities for cities aiming to lead by example. The results also show that cities are not afraid to test new options. Fleets employ a variety of vehicles; large cities in particular appear to be leading in the adoption of hybrid and all- electric passenger vehicles, as well as all-electric buses – a very recent addition to the market.

There is growing dialogue around local government adoption of electric vehicles, but the question of whether this interest is reflected in fleet profiles remains to be answered. An initial lack of available models may have constrained market penetration, but the recent expansion of available EV models may facilitate more municipal procurement. According to the U.S. Department of Energy’s Alternative Fuels Data Center, the number of available models rose from 0 in 2007 to 27 in 2015 and then to 46 in 2017. Looking ahead, city officials may find that there are more EV models to consider than in prior procurement opportunities. With green vehicle procurement policies in place in 60 percent of cities, and these cities accounting for upwards of 80 percent of new vehicle purchases, a transition may be underway. By tracking municipal fleet profiles, the Alliance intends to demonstrate whether city fleets are transitioning over time.

The impacts of transportation reach far beyond government fleets. The 2018 survey sets an additional baseline of the alternative transportation modes cities provide to citizens. The results show that public bus services and bike lanes are widespread across American cities. In some ways, the new modes that cities are considering most often, such as vehicle sharing programs, are logical. For example, bike-share and scooter-share programs are established and managed by private sector players and bring relatively minor governmental burden (although they are encountering legal hurdles). On the other hand, bus rapid transit and local rail transit involve large infrastructure and planning efforts and require heavy government investment. There is an argument to be made that each of these alternative modes will play an important role providing low- carbon last-mile and longer-range commuting options.

Finally, about half of cities are engaging in efforts to establish better EV charging networks and some – mostly Californian cities – are incentivizing citizens to purchase the vehicles. In addition to providing GHG reduction benefits, these efforts can support regional air quality goals. Broader support and investment by states, the private sector, utilities, and nonprofit sector are likely critical to ensuring local government focus and progress in this area.

## **RENEWABLE ENERGY**

In June 2017 and reaffirmed in 2018, The U.S. Conference of Mayors adopted a resolution in support of cities establishing a community-wide target of powering their communities with 100 percent clean, renewable energy by 2035. While the portion of cities procuring renewable electricity has not changed significantly relative to the results published in the 2017 Alliance report, it does appear that the overall amount of renewable electricity purchased by governments is rising. This may mean that energy utilities and project developers are meeting the increasing demand of mayors to provide clean energy solutions or that as cities become comfortable procuring some amount of renewable electricity, entering new deals or expanding existing ones become easier.



Given the current level of renewable energy adoption reported by the participating cities, there is much work to do if adopting a 100 percent renewable energy policy is to become common practice. It appears that setting renewable energy targets would aid in these efforts. The results shown in Figures 9 and 11 seem to indicate that setting a renewable energy goal can strongly influence the actual procurement of renewable electricity and the presence of policies and incentives for community adoption.

## **ENERGY EFFICIENCY**

Cities require energy efficiency standards in municipal buildings and operations more often than in commercial and residential buildings. Efficiency investments and standards for city operations are an opportunity for the city to lead by example and are an easier political decision because they benefit the city's financial health.

However, given the scale of the climate challenge and the potential energy savings in the buildings across communities, many cities are promoting and extending efficiency solutions for a broader public benefit. Policies aimed at new construction appear more often than those for existing buildings, but only slightly. One emerging community-facing energy efficiency policy is energy benchmarking and disclosure programs. Throughout the country, these policies are still in early stages of development and implementation, and it is perhaps not surprising that the resource-intensive strategy is more common in large cities. The lessons learned by these early-adopters will be valuable as cities of all sizes move from consideration stages to adoption and implementation.

## **STRATEGIES AND COLLABORATION TO SUPPORT ACTION**

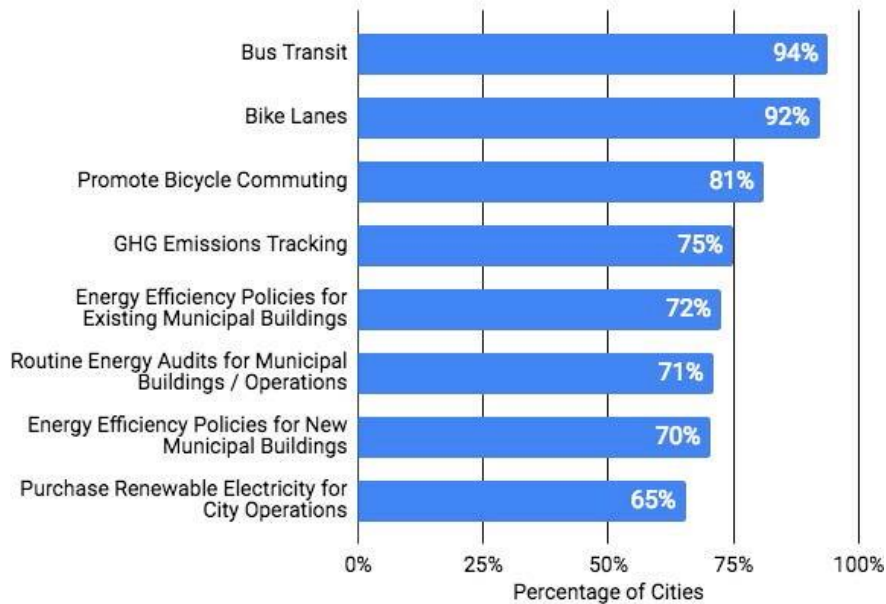
Measuring the GHG emissions of city activities over time can provide critical information as cities define reduction strategies and assess their implementation, and many cities undertake this level of internal tracking. When comparing these findings to 2017 responses, when 7 in 10 cities tracked their emissions, it appears that GHG tracking has either become slightly more common, or that more cities that track their emissions participated in 2018. In addition, because the questionnaire does not gather data on the scope of the inventories, some cities that reported emissions tracking practices may have referred to government operations only, while others track emissions for both government and community activities.

Across the board, cities identified an interest in partnering with the private sector to advance solutions in low-carbon transportation, renewable energy, and energy efficiency. Through the qualitative responses provided by cities, strong collaborative relationships with utilities in particular appear to be key components of successful climate efforts. This may come as no surprise as utilities are central actors in providing clean energy options, energy efficiency expertise and incentives, and supportive business models and infrastructure for EV charging.

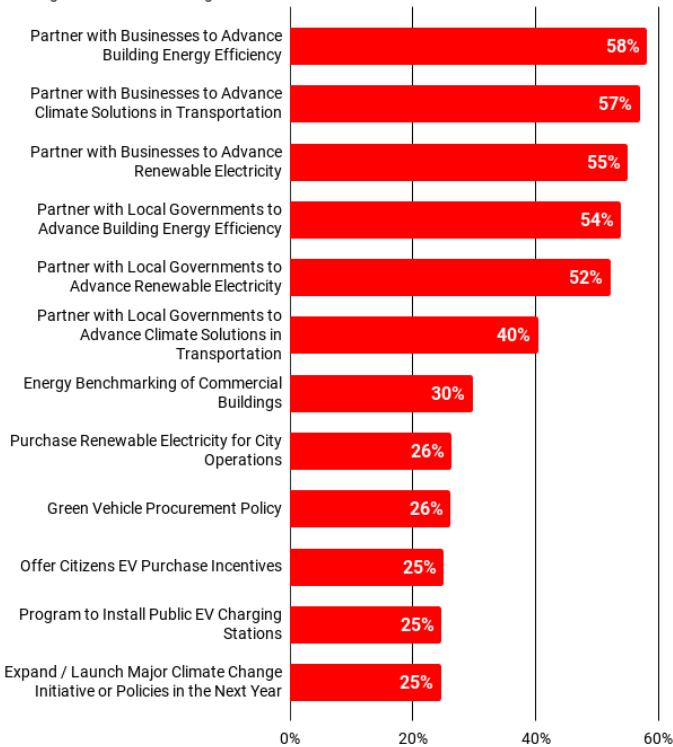
## **EMERGING TRENDS**

Several policies and activities are found in nearly every participating city (Figure 15). These include bus transit, bike lanes, and efforts to promote bicycle commuting. Efforts to increase the energy efficiency and reduce the environmental impacts of local government operations are nearly as common.

**Figure 15. Most Common Policies and Activities**  
 Percentage of Cities With Policies and Activities Underway



**Figure 16. Areas of Greatest Interest for New Participation**  
 Percentage of Cities Considering or Interested



When reviewing the climate actions cities are considering most commonly, the development of new partnerships in all sector areas rises to the top (Figure 16). Targeted emission reduction actions, such as adopting green vehicle procurement policies, offering EV incentives to citizens, purchasing renewable electricity for the government, and establishing energy benchmarking programs are also relatively common.

If acting cities continue their pursuits and those on the fence decide to move forward with policies and activities they are considering, we can forecast a future picture of American cities (Figure 17). Regardless of size, the future American city strives to provide mobility options including bus transit, EV charging, and bike-friendly streets with bike-share programs. Public-private partnerships and

alliances with other local governments are in place to advance renewable energy, energy efficiency and low-carbon transportation solutions. At the center of these cities are energy efficient governments that are at least in part powered by renewable energy. Importantly, these governments will strive to face this future even while facing a number of changing climate impacts.

## CONCLUSION

This report demonstrates that mayors and the cities they represent continue to step forward to reduce their greenhouse gas emissions through significant efforts at the local level. By adopting alternative fuel vehicles, increasing the energy efficiency of new and existing buildings, expanding the use of renewable electricity, and piloting new modes of transportation and incentives for citizens, cities of all sizes are actively working to advance climate solutions.

The results show that cities of all sizes can be leaders in the transition to a low-carbon economy. For example, while cities with populations greater than 250,000 are currently leading the way in green fleets, those cities under 250,000 are leading in transitioning to renewable electricity for local government.

Although this report does not fully document the extent and efficacy of the policies and programs in each city, it does show extensive mayoral leadership in adopting forward-thinking policies and developing programs to protect citizens and create livable communities. An important part of this leadership comes through the existing partnerships cities have established with their utilities, the private sector, fellow local governments and nonprofits.

The ability of cities and businesses to work together on these fronts will be critical to ensuring challenges are met. The specific opportunities for private sector engagement are substantial as listed in the “Partnerships with the Private Sector” section and can serve as a starting place for business leaders looking for direction. The challenge is two-fold – empowering cities to adopt new climate policies and actions, and then enabling them to deliver on their full potential.

This demonstrated leadership sends a powerful message to both domestic and global players and will help assure that climate progress continues to be made.

### MAP OF PARTICIPATING CITIES



## PARTICIPATING CITIES

Alameda, CA	Dayton, OH	Little Rock, AR	Revere, MA
Alexandria, VA	Denver, CO	Long Beach, CA	Richmond, VA
Alhambra, CA	Des Moines, IA	Los Angeles, CA	Riverbank, CA
Anchorage, AK	Dublin, CA	Louisville, KY	Rochester, NY
Arlington, TX	Dubuque, IA	Macon, GA	Rochester Hills, MI
Aspen, CO	Duluth, MN	Madison, WI	Saint Louis, MO
Atlanta, GA	Durham, NC	Manhattan Beach, CA	Saint Louis Park, MN
Aurora, IL	East Hartford, CT	Margate, FL	Salt Lake City, UT
Austin, TX	Easton, PA	Mesa, AZ	San Bruno, CA
Avondale, AZ	Eden Prairie, MN	Miami, FL	San Francisco, CA
Baltimore, MD	Elizabeth, NJ	Miami Beach, FL	San José, CA
Baton Rouge, LA	Encinitas, CA	Mooresville, NC	San Leandro, CA
Bethlehem, PA	Erie, PA	Napa, CA	San Rafael, CA
Birmingham, AL	Evanston, IL	Nashua, NH	Santa Ana, CA
Bloomington, IN	Everett, MA	Nashville, TN	Santa Barbara, CA
Boise, ID	Fairfield, CT	New Bedford, MA	Santa Fe, NM
Bonita Springs, FL	Fayetteville, AR	New Orleans, LA	Santa Monica, CA
Boston, MA	Fontana, CA	New York, NY	Schaumburg, IL
Boulder, CO	Fort Collins, CO	Newark, CA	Schenectady, NY
Bridgeport, CT	Framingham, MA	Newark, NJ	Seattle, WA
Buffalo, NY	Fremont, CA	Newport News, VA	Sheboygan, WI
Burnsville, MN	Gary, IN	Newton, MA	Shreveport, LA
Camden, NJ	Gastonia, NC	Normal, IL	South Bend, IN
Carmel, IN	Gresham, OR	North Port, FL	Stratford, CT
Carson, CA	Hallandale Beach, FL	Oakland, CA	Syracuse, NY
Charleston, SC	Hanover Park, IL	Olathe, KS	Tacoma, WA
Chicago, IL	Henderson, NV	Orlando, FL	Tempe, AZ
Chula Vista, CA	Hermosa Beach, CA	Pembroke Pines, FL	Toledo, OH
City of Weston, FL	Honolulu, HI	Phoenix, AZ	Torrance, CA
Clarksville, TN	Houston, TX	Pinellas Park, FL	Washington, DC
Clifton, NJ	Independence, MO	Plano, TX	Waterbury, CT
College Park, MD	Kansas City, MO	Pleasantville, NJ	Waukesha, WI
Columbia, MO	Knoxville, TN	Portland, OR	Wellington, FL
Columbia, SC	Lambertville, NJ	Pullman, WA	West Covina, CA
Columbus, GA	Lansing, MI	Queen Creek, AZ	West Hollywood, CA
Columbus, OH	Las Cruces, NM	Raleigh, NC	West Palm Beach, FL
Corvallis, OR	Las Vegas, NV	Rancho Palos Verdes, CA	West Sacramento, CA
Culver City, CA	Laurel, MD	Redmond, WA	Westland, MI
Dallas, TX	Lima, OH	Reno, NV	Woodland, CA