CENTER FOR CLIMATE AND ENERGY SOLUTIONS

Alliance for a Sustainable Future

a joint effort by The U.S. Conference of Mayors and the Center for Climate and Energy Solutions (C2ES)

June 2017

Sustainability Questionnaire – Preliminary Results

THE UNITED STATES CONFERENCE OF MAYORS & THE CENTER FOR CLIMATE AND ENERGY SOLUTIONS

THE UNITED STATES CONFERENCE OF MAYORS

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About The U.S. Conference of Mayors: The U.S. Conference of Mayors is the official nonpartisan organization of cities with populations of 30,000 or more. There are nearly 1,400 such cities in the country today, and each city is represented in the Conference by its chief elected official, the mayor. Learn more at www.usmayors.org.

About C2ES: The Center for Climate and Energy Solutions (C2ES) is an independent, nonpartisan, nonprofit organization working to forge practical solutions to climate change. Our mission is to advance strong policy and action to reduce greenhouse gas emissions, promote clean energy, and strengthen resilience to climate impacts. Learn more at www.c2es.org.

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INTRODUCTION

The Alliance for a Sustainable Future is a collaborative effort between The U.S. Conference of Mayors and the Center for Climate and Energy Solutions (C2ES). The Alliance is made up of Mayors and businesses who are interested in working together to develop climate solutions and create more sustainable communities.

The Alliance is chaired by Santa Fe Mayor Javier Gonzales along with Vice-Chair Salt Lake City Mayor Jackie Biskupski. As part of the Alliance's ongoing work plan, mayors across the county were surveyed on their city's sustainability efforts in the areas of low-carbon transportation, renewable electricity, and energy efficiency in new and existing buildings. The goal of the ongoing questionnaire is to develop a baseline of city efforts, determine innovative practices in these areas, identify trends, and define areas where additional technical assistance may be needed.

QUESTIONNAIRE AND RESPONDING CITIES

The questionnaire was originally emailed on May 17, 2017 to approximately 80 Mayors who serve in leadership roles for The U.S. Conference of Mayors. However, when the United States announced its intention to pull out of the Paris Climate Accord on June 1, the questionnaire was emailed to all members of the Conference of Mayors as well as all cities with populations of 30,000 or more, approximately 1,400 cities. Data was collected until June 15. The questionnaire will remain open to allow more cities to respond in the coming months. The Alliance will publish a follow-on report with these additional data later this year.

By June, 66 cities from 30 states (see final page) had provided answers to all or part of the questionnaire. Responding cities represent a broad geography and range in size from 21,000 (Pleasantville, NJ) to 8.5 million, (New York City) and together represent nearly 32 million Americans.

City Population	Number of Responding Cities
Under 100,000	26
100,000-300,000	21
300,000-500,000	6
500,000 and Above	13

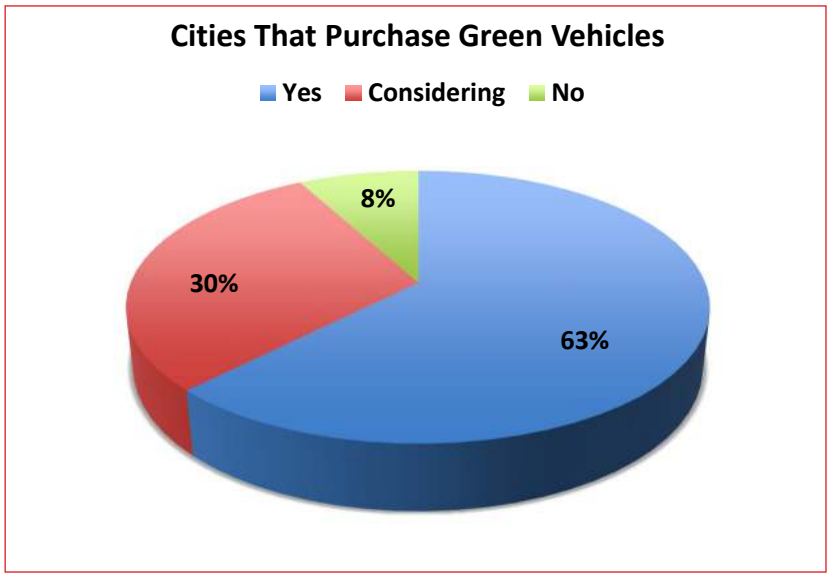
PRELIMINARY RESULTS

TRANSPORTATION

Vehicles contribute significantly to air pollution and greenhouse gas emissions within cities. The questions on transportation focused on whether cities have begun to procure alternative fuel vehicles (and what types), for their municipal fleets and whether they have programs and policies supporting electric vehicle deployment.

GREEN VEHICLE PURCHASING

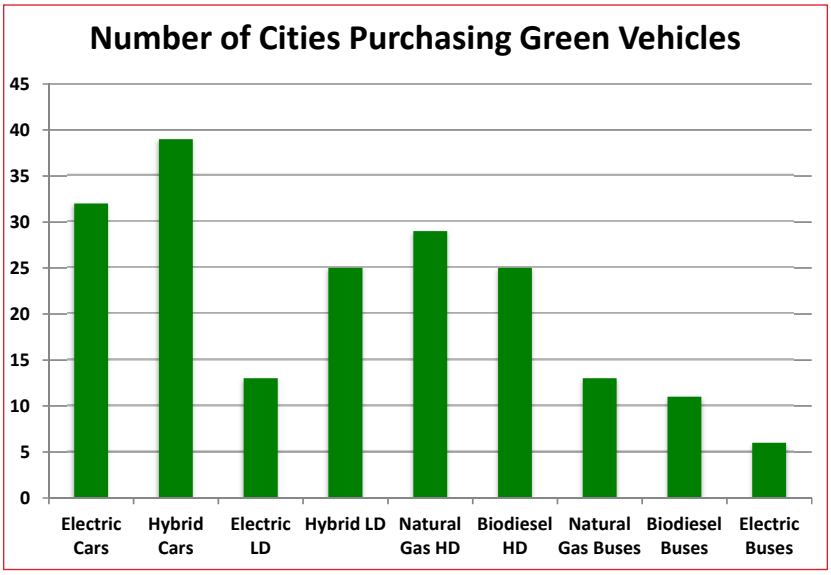
Of the 64 cities responding to a question regarding the purchase of green vehicles, 40 (63%) indicated they already purchase green vehicles for their fleets, while an additional 19 (30%) are actively considering it. **Combined, 59 cities, or 93% of the respondents, are considering or already have purchased green vehicles.**



TYPES OF GREEN VEHICLES PURCHASED

Cities were asked about the types of low carbon or green vehicles they purchased for their fleets. The questionnaire found that a broad array of green vehicle purchasing is occurring in cities in nine different categories:

- Electric Passenger Cars - 32 out of 54 respondents (59%)
- Hybrid Passenger Cars - 39 out of 56 respondents (70%)
- Electric Light Duty - 13 out of 48 respondents (27%)
- Hybrid Light Duty - 25 out of 52 respondents (48%)
- Natural Gas Heavy Duty (excluding buses) - 29 out of 52 respondents (56%)
- Biodiesel Heavy Duty - 25 out of 50 respondents (50%)
- Natural Gas Buses - 13 out of 46 respondents (28%)
- Biodiesel Buses - 11 out of 41 respondents (27%)
- Electric Buses - 6 out of 42 respondents (14%)



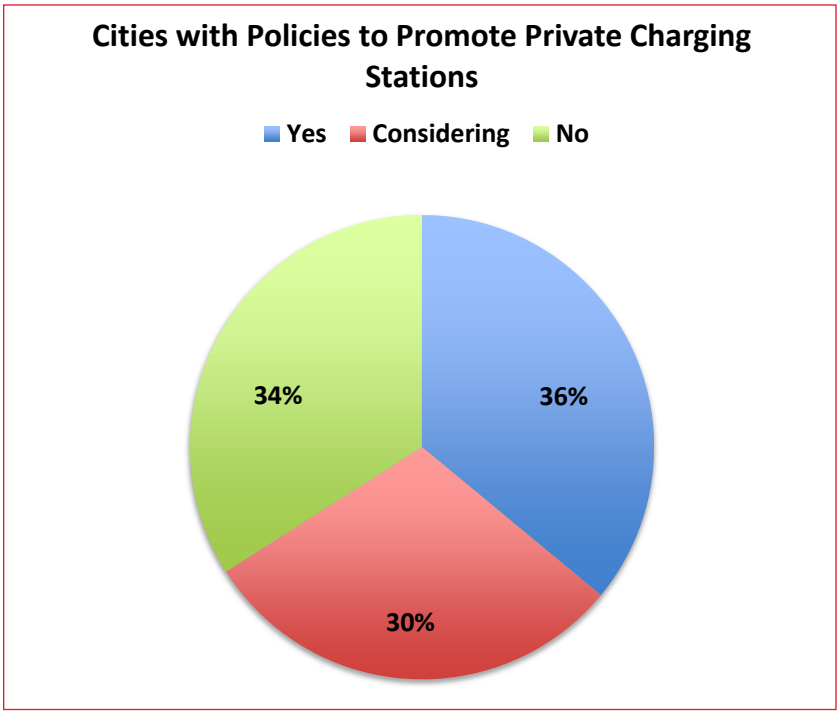
These responses demonstrate that cities are purchasing a wide assortment of green vehicles, indicating that these procurement practices are broad-based.

PUBLIC CHARGING STATIONS

Public charging for electric vehicles is found in 66% (42 out of 64 respondents), with an additional 23% considering installations. Only 11% of cities (7 out of 64) surveyed do not have public charging stations nor plan on installing them.

PRIVATE CHARGING STATIONS

More than a third of the cities (36% or 23 out of 64) have policies or programs that promote private infrastructure for electric vehicle charging, while another 30% are considering such action. The remaining third (34%) do not have such policies.



ELECTRIC VEHICLE INCENTIVES FOR CITIZENS

More than 15% (10 out of 64 respondents) offered incentives for citizens to purchase their own electric vehicles, with another 20% considering such a measure.

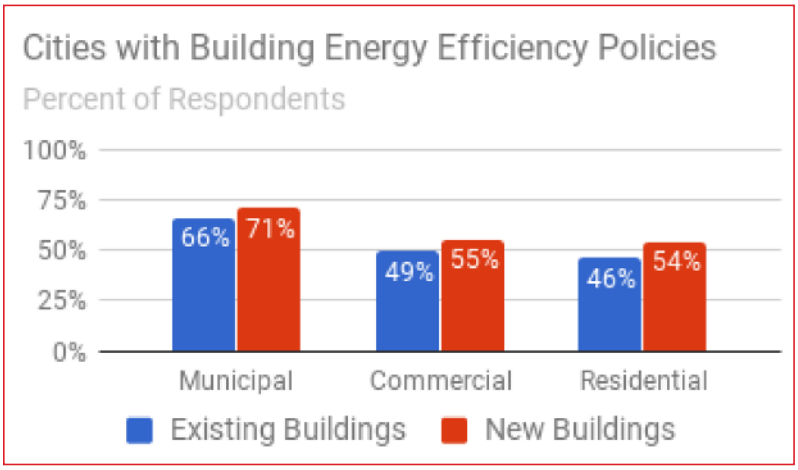
ENERGY EFFICIENCY IN BUILDINGS

POLICIES AND INCENTIVES

Many cities are taking action to improve the efficiency of municipal buildings. **Energy efficiency policies for new municipal buildings are present in 71% of cities (44 of 62 responding cities). Policies for existing municipal buildings are found in 66% of cities (42 of 64 responding cities).**

Energy efficiency policies and incentives are slightly less common for both commercial and residential buildings. Of 63 responding cities, 49% have policies or incentives for existing commercial buildings and 46% for existing residential buildings. These numbers increase slightly for new buildings, with 55% of cities supporting such policies in new commercial buildings (34 of 62 responding cities) and 54% in newly constructed residential buildings (33 of 61 responding cities). Some common policies and programs to incentivize energy efficiency in buildings include:

- Requiring LEED certification standards for buildings over a designated square footage
- Adhering to state mandates (e.g. the Massachusetts Stretch Code)
- Using the Property-Assessed Clean Energy (PACE) financing program
- Incorporating building efficiency standards into community climate action plans



ENERGY AUDITS

Energy audits track energy consumption to identify opportunities to reduce energy use and achieve financial savings. Cities routinely conduct energy audits for municipal buildings and operations (66%, or 41 out of 62 responding cities). An additional 19% are currently considering adopting the practice.

Together, 85% of the 62 cities currently conduct or are considering conducting routine energy audits of their municipal buildings and operations.

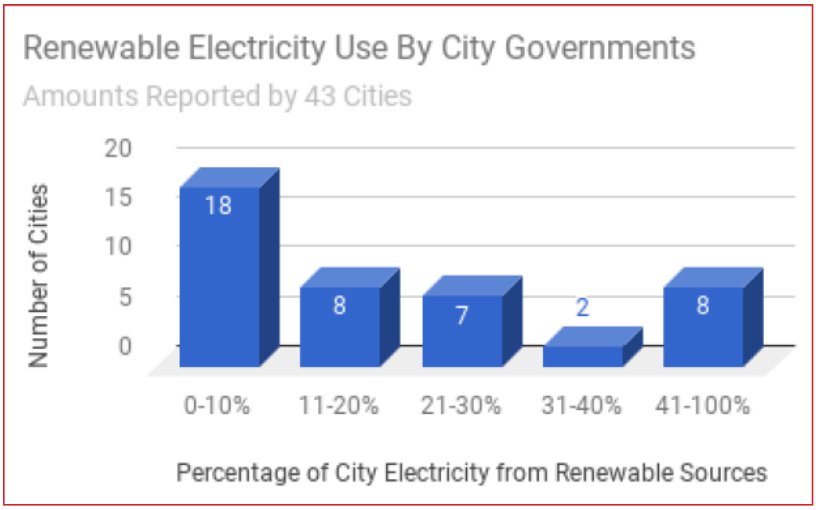
Energy Benchmarking

By tracking the energy consumption of similar buildings, comparisons may be drawn to identify opportunities for improvement and accurately calculate potential savings. This process, called energy benchmarking, provides the vital information needed to improve energy management strategies. **Out of 63 responding cities, 27% of cities currently support or require energy benchmarking of commercial buildings, with an additional 17% considering implementing such a program.**

RENEWABLE ELECTRICITY

ELECTRICITY FOR MUNICIPAL OPERATIONS

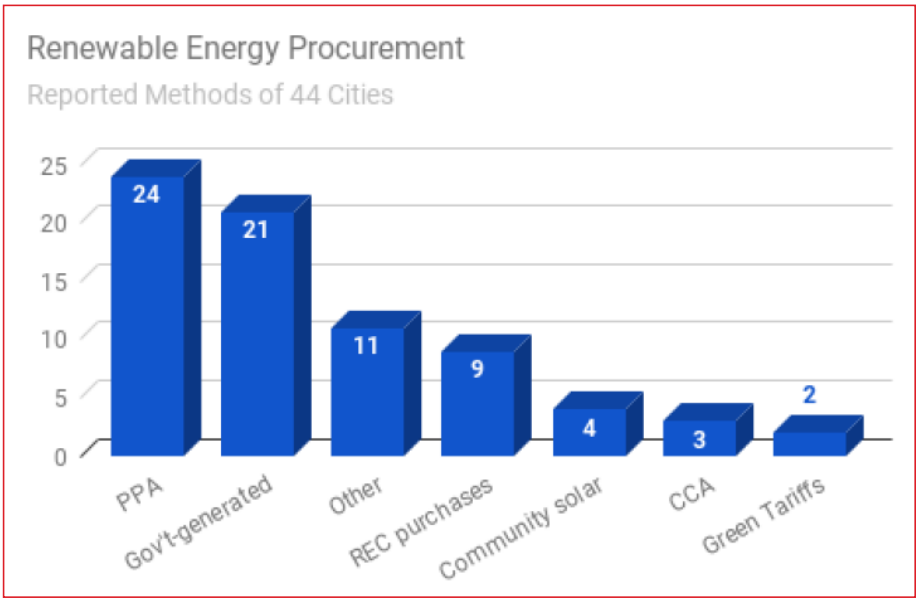
Energy sources are an area of increasing interest for cities pursuing climate goals. More than half of responding cities have a renewable energy standard or goal for municipal operations (36 out of 64 cities). Renewable energy procurement is even more common, with 69% of the 64 responding cities currently generating or purchasing renewable electricity to power city buildings or other city operations. An additional 22% of cities are considering purchasing renewables to cover city operations. **To put this another way, 91% of cities either currently use or are considering renewable energy procurement (58 out of 64 responding cities).**



Of the 43 cities that shared information on how much renewable electricity they use, 23% source more than 30% of their electricity from renewable sources. Four cities cover all of their electricity needs through renewables. Although many cities use some renewable energy, it appears traditional energy sources still dominate.

The most common ways responding cities procure renewables are through power purchase agreements (24 cities), on-site generation (21), and renewable energy credits (9). Less common strategies include community solar (4), community choice aggregation (3), and green tariffs (2). The relative scarcity of community choice aggregation and green tariff programs in particular makes sense, given these models are only allowed in seven and ten states, respectively. However, if more states pass supporting policies, more cities may utilize these procurement options.

Together, 47 cities (of the 66 participating cities) spend nearly $1.2 billion dollars every year on electricity for city operations. With this level of purchasing power, coordinated efforts or shifts in demand from US cities will be of interest to energy utilities and providers.



ELECTRICITY FOR THE COMMUNITY

47% of cities have policies or programs that help citizens and businesses choose renewable electricity options (30 of 64 responding cities). Examples of these policies and programs include:

- PACE programs
- incentives and rebates for renewable energy installations
- engaging and educating community groups wishing to buy solar
- facilitating bulk purchases with utility
- working with utilities to provide purchasing options and promoting those to residents
- streamlining permitting and installation of residential solar

Many cities have established goals to increase the amount of renewable energy available to members of the community (including residential and commercial customers). Goals for city-wide renewable electricity use currently exist in 39% of cities (25 of 64 responding cities).

COLLABORATION

PARTNERSHIPS WITH THE BUSINESS COMMUNITY

87% of cities are interested in or are already partnering with the business community to advance climate solutions (54 of 62 responding cities).

The cities noted examples of public-private partnerships such as:

- Entering joint agreements with utilities to support energy programs
- Offering sustainability challenges, certifications, and awards for businesses
- Engaging the private sector to understand feasibility and develop new ordinances and plans (e.g., new buildings codes, transportation plans, community energy visions)
- Participating in local commissions with public and private representatives
- Performance contracting to improve municipal operations
- Establishing partnerships to provide services to government (e.g., city employee bike share program)
- Providing technical assistance for local businesses

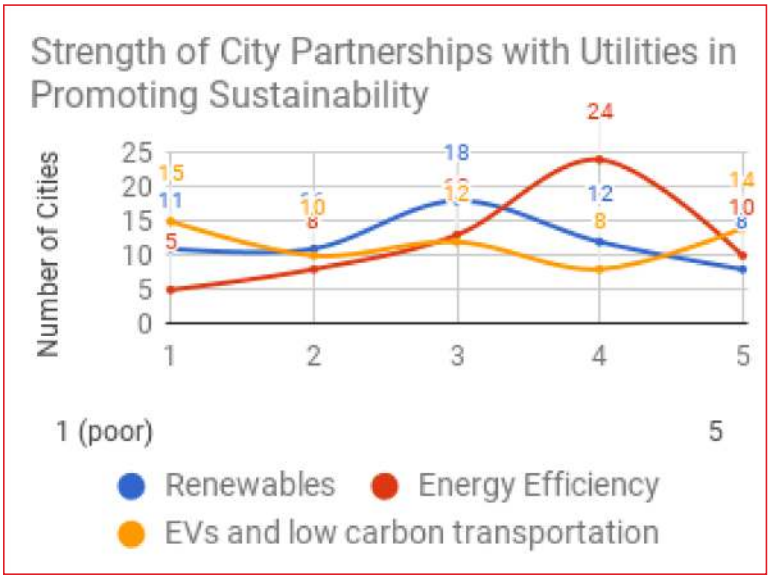
PARTNERSHIPS WITH UTILITIES

The questionnaire also asked specifically about cities' experiences collaborating with their utilities, in the areas of renewable electricity, energy efficiency, and low-carbon transportation. Respondents rated their partnership experiences on a scale of 1 (poor) to 5 (excellent).

Cities noted their most positive partnerships with utilities are to promote energy efficiency, with an average rating of 3.4 out of 5. Responses follow a left-skewed bell curve, with most respondents reporting a moderately positive partnership experience.

Cities reported an average rating of 2.9 out of 5 for working with utilities to promote renewable energy. Renewable scores follow a normal distribution, with most respondents reporting a neutral partnership experience.

Partnerships with utilities to promote electric vehicles and low-carbon transportation also drew an average rating of 2.9 out 5. However, these responses showed a slightly different pattern, with cities often noting either poor or excellent partnerships with their utilities to promote EVs and low-carbon transportation.



PARTNERSHIPS WITH THE OTHER LOCAL GOVERNMENTS

90% of cities are interested in or already partnering with other local governments (55 of 62 responding cities). There are many avenues for partnerships at the national, regional, and local level. For example, the responding cities noted their participation in:

- Aggregated procurement efforts such as the multi-city Electric Vehicle Request for Information
- Regional networks and coalitions to: develop new energy options (such as community choice programs), implement transportation plans, and create climate plans
- National city-city networks and implementation-focused programs with city cohorts

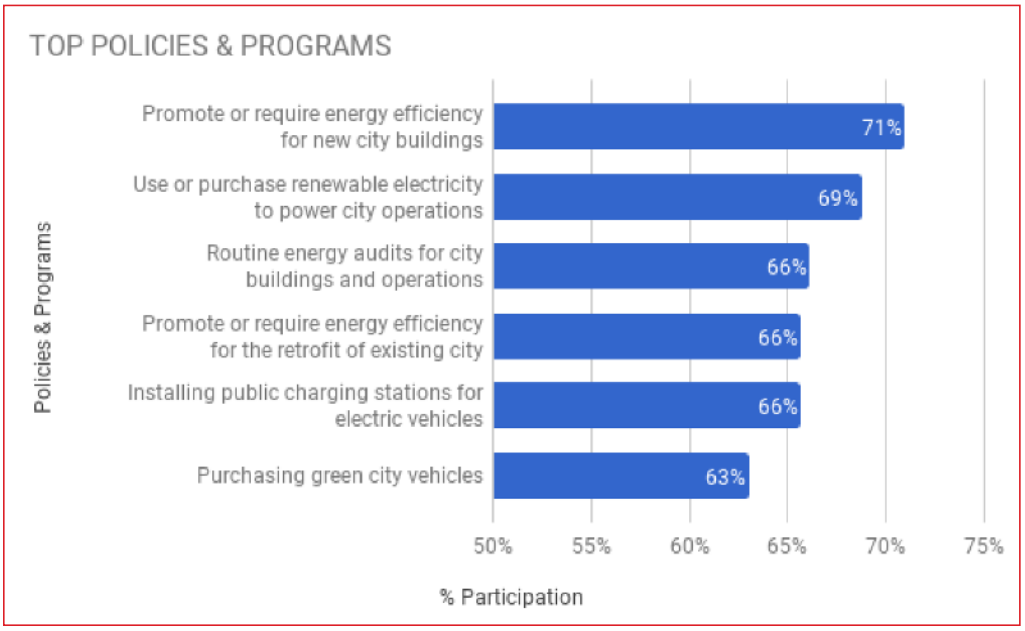
GHG INVENTORY PRACTICES

Cities were also asked about practices to inventory greenhouse gas emissions. Currently, 7 out of 10 cities track their emissions. The most common tool used to track emissions is the ICLEI ClearPath tool, but many cities choose other options such as the EPA Local Greenhouse Gas Inventory Tool, the C40 City Inventory Reporting and Information System (CIRIS), and other excel-based tools created by private sector partners.

Cities that are tracking emissions primarily use tools that adhere to the standards set by the Global Protocol for Community-Scale Greenhouse Gas Emission Inventories (GPC). The GPC standards help ensure that city inventories are complete and comparable. Cities that submit their inventories to the Global Covenant of Mayors must follow the GPC.

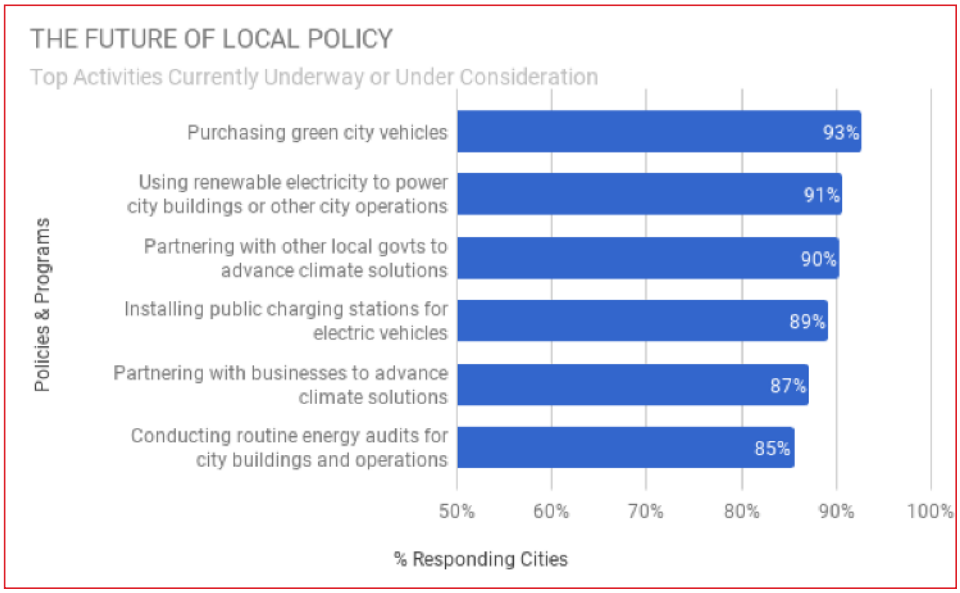
DISCUSSION

The results show the significant leadership occurring at the city level to promote building energy efficiency, renewables, and low-carbon transportation. Cities are most often focusing on policies and programs that improve city operations and procurement decisions, but their responses regarding activity scope and progress also show there is substantial opportunity for expansion.



The responses also shed light on the direction of local policy. Many cities have adopted sustainability policies, and a large number of other cities are considering such action. By combining the cities that have adopted policies with those that are considering action the potential for greater deployment becomes clear. It also becomes clear that cities are very interested in partnering with other local governments and the private sector to do so.

The graph below offers a glimpse into the future of local policy, showing the top policies and programs that cities are currently pursuing or considering.



The questionnaire results also point to the potential for enhanced coordination and partnerships with the private sector to accelerate efforts in the community. Roughly half of the responding cities are:

- incentivizing energy efficiency in new and existing commercial and residential buildings
- promoting renewable energy options
- providing public and private charging stations for electric vehicles

Key partners in such efforts will include electric utilities, energy service companies, financial institutions, transportation companies, and firms that improve the built environment.

As more cities implement and demonstrate the success of such policies, adoption by other cities is likely to follow. Future iterations of this questionnaire will track continued efforts as they unfold.

PARTICIPATING CITIES

Arlington, TX
Atlanta, GA
Aurora, IL
Austin, TX
Boston, MA
Beaverton, OR
Burnsville, MN
Carmel, IN
Charleston, SC
Columbus, OH
Corvallis, OR
Dallas, TX
Dayton, OH
Denver, CO
Des Moines, IA
Dubuque, IA
Eden Prairie, MN
Elizabeth, NJ
Encinitas, CA
Everett, MA
Gresham, OR
Hartford, CT
Henderson, NV
Houston, TX
Independence, MO
Knoxville, TN
Lima, OH
Little Rock, AR
Long Beach, CA
Los Angeles, CA
Louisville, KY
Madison, WI
Mesa, AZ
Miami Beach, FL
Nashville, TN
New Bedford, MA
New Orleans, LA
New York, NY
Normal, IL
North Port, FL
Pembroke Pines, FL
Phoenix, AZ
Plano, TX
Pleasantville, NJ
Portland, OR
Redmond, WA
Richmond, VA
Rochester, NY
Saint Louis, MO
Salt Lake City, UT
San Francisco, CA
San Marcos, TX
Santa Barbara, CA
Santa Fe, NM
Santa Monica, CA
Tacoma, WA
Tempe, AZ
Toledo, OH
Torrance, CA
Walnut Creek, CA
Waukesha, WI
Wellington, FL
West Hollywood, CA
West Palm Beach, FL
West Sacramento, CA
Westland, MI

THE UNITED STATES CONFERENCE OF MAYORS

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