Contents

Appendix A. Metric Categorization

Table A1 categorizes each metric (or different metric components) on the basis of the following factors:

- Does a clean energy action relate to equity in planning and program delivery?
- Which stage of clean energy policymaking does a metric track—planning, policy adoption and implementation, evaluation, or outcomes?
- Does it assess a smart growth policy or program?

DEFINITIONS

Equity-focused. The extent to which city actions engage with or invest in historically marginalized communities, often communities of color and low-income communities.

Planning. The process cities undertake to develop and change clean energy policies and programs.

Policy. Cities' adopted clean energy requirements and active programs.

Evaluation. Methods and data cities are using to hold themselves accountable to their goals and track the ongoing performance of programs.

Outcomes. The results of an adopted city policy, program, or plan.

Smart growth. Policy or activity that promotes compact development with transportation options, reuse of existing buildings and infrastructure, community engagement, and green space integrated into streets and neighborhoods.

Table A1. Metric categorization

Metric	Equity focused	Policymaking stage	Smart growth	Possible points
Community-wide initiatives				
Community-wide climate goal stringency	No	Evaluation	No	3
Community-wide climate goal progress	No	Outcomes	No	6
Community-wide energy reduction goal	No	Evaluation	No	3

Metric	Equity focused	Policymaking stage	Smart growth	Possible points
Community-wide carbon-free electricity goal stringency	No	Evaluation	No	2
Community-wide carbon-free electricity goal progress	No	Outcomes	No	3
Community-wide carbon-free electricity supply	No	Outcomes	No	2
Equity-driven community engagement	Yes	Planning	No	5
Equity-driven decision making	Yes	Planning	No	5
Accountability to racial and social equity	Yes	Evaluation	No	5
Creation of resilience hubs	Yes	Policy	Yes	2
Heat island mitigation policies and programs	No	Policy	Yes	3
Workforce development programs for disadvantaged workers	Yes	Policy	No	2
Workforce development programs for the broader community	No	Policy	No	2
Workforce development programs for outcome tracking	Yes	Evaluation	No	2
Buildings policies				
Residential and commercial code stringency	No	Policy	No	8

Metric	Equity focused	Policymaking stage	Smart growth	Possible points
Electrification policies or programs	No	Policy	No	3
Renewable readiness	No	Policy	No	2
Building EV readiness	No	Policy	Yes	2
Low-energy-use requirements	No	Policy	No	1
Dedicated staffing for building energy code compliance	No	Policy	No	1
Energy code compliance strategies	No	Policy	No	2
Upfront support for building energy code compliance	No	Policy	No	1
Building energy efficiency incentives	No	Policy	No	2*
Clean energy incentive and financing program best practices	No	Policy	No	2*
Low-income energy incentive and financing programs	Yes	Policy	No	2
Low-income clean energy incentive and financing program best practices	Yes	Policy	No	2
Affordability requirements in energy incentive and financing programs	Yes	Policy	Yes	2
Building performance standards	No	Policy	Yes	8*

Metric	Equity focused	Policymaking stage	Smart growth	Possible points
Building performance standard support for affordable housing	Yes	Policy	Yes	4
Building performance standard support for underserved commercial	Yes	Policy	Yes	4
Retrofit requirements	No	Policy	Yes	8*
Retrocommissioning requirements	No	Policy	Yes	4*
Building crosscutting requirements	No	Policy	No	4*
Energy audit requirements	No	Policy	No	2*
Building voluntary programs	No	Policy	No	2*
Benchmarking requirements	No	Policy	No	6*
Benchmarking compliance	No	Outcomes	No	1*
Commercial rental energy disclosure policy	No	Policy	No	2*
Residential rental energy disclosure policy	Yes	Policy	No	2
Other building energy-saving requirements	No	Policy	No	4*
Tracking equity outcomes for non-equity programs	Yes	Evaluation	No	2

Metric	Equity focused	Policymaking stage	Smart growth	Possible points
Equitable electrification programs	Yes	Policy	No	2
Transportation policies				
Sustainable transportation plan	No	Planning	Yes	1
Equitable sustainable transportation plan	Yes	Planning	Yes	1
Codified VMT/GHG targets	No	Evaluation	No	2
Stringency of VMT/GHG targets	No	Evaluation	No	2
Progress achieved toward VMT/GHG goal	No	Outcomes	No	3
Location-efficient zoning codes	No	Policy	Yes	4
Parking requirements	No	Policy	Yes	4
Location efficiency incentive programs and disclosure policies	No	Policy	Yes	2
Mode shift targets	No	Evaluation	Yes	2
Progress toward mode shift target	No	Outcomes	Yes	3
Bikeability	No	Evaluation	Yes	4
Transit funding	No	Policy	Yes	4

Metric	Equity focused	Policymaking stage	Smart growth	Possible points
Access to transit	No	Outcomes	Yes	4
Electric vehicle charging requirements	No	Policy	Yes	2
Electric vehicle charging infrastructure incentives	No	Policy	Yes	1
Equitable electric vehicle charging infrastructure incentives	Yes	Policy	Yes	1
Efficient vehicle purchase incentives	No	Policy	Yes	1
Equitable efficient vehicle purchase incentives	Yes	Policy	Yes	1
Number of EV charging station ports	No	Outcomes	Yes	3
Electric school bus goal	No	Evaluation	No	0.5
Equitable electric school bus goal	Yes	Evaluation	No	0.5
Electric transit bus goal	No	Evaluation	No	0.5
Equitable electric transit bus goal	Yes	Evaluation	No	0.5
Sustainable freight plans and strategies	No	Planning	Yes	5
Open freight data portal	No	Planning	No	3

Metric	Equity focused	Policymaking stage	Smart growth	Possible points
Affordable housing around transit	Yes	Policy	Yes	5
Subsidized access to efficient transportation options	Yes	Policy	Yes	5
Low-income access to high-quality transit	Yes	Outcomes	Yes	5
Equitable EV infrastructure deployment (bonus)	Yes	Policy	Yes	2
Congestion pricing (bonus)	No	Policy	Yes	1
Congestion pricing (bonus)	Yes	Policy	Yes	1
Community energy infrastructure				
Electric and natural gas efficiency savings	No	Outcomes	No	7
Low-income energy efficiency program portfolio	Yes	Policy	Yes**	4
Low-income energy efficiency program funding braiding	Yes	Policy	No	1
Dedicated funds to lower Weatherization Assistance Program deferral rates	Yes	Policy	No	2
Low-income energy efficiency program equity goals	Yes	Evaluation	No	2
Low-income energy efficiency gap analysis	Yes	Evaluation	No	2
Multifamily program	Yes	Policy	No	1

Metric	Equity focused	Policymaking stage	Smart growth	Possible points
Equitable utility clean efficiency partnerships	Yes	Planning	No	2
Utility automated benchmarking program	No	Policy	No	1
Community energy data	No	Planning	No	1
City-led actions to decarbonize electric grid	No	Policy	No	3
Electric utility climate goal stringency	No	Evaluation	No	2
Joint water–energy programs	No	Policy	No	1
Water utility energy efficiency strategies	No	Policy	No	1
Water utility energy recovery and renewables	No	Policy	No	1
Municipal carbon-free electricity procurement	No	Outcomes	No	2
Renewable energy incentives	No	Policy	No	2
Low-income renewable energy incentive and financing programs	Yes	Policy	No	2
Support for shared distributed energy systems	No	Policy	Yes	1.5
Equity-driven approach to shared, distributed energy systems	Yes	Policy	Yes	1.5

Metric	Equity focused	Policymaking stage	Smart growth	Possible points
Local government operations				
Local government climate goal stringency	No	Evaluation	No	1
Local government climate goal progress	No	Outcomes	No	2
Local government carbon-free electricity goal stringency	No	Evaluation	No	1
Local government energy reduction goal stringency	No	Evaluation	No	1
Fleet composition	No	Outcomes	No	2
Fleet procurement policy	No	Policy	No	1
Efficient public lighting performance	No	Outcomes	No	2
Efficient public lighting policy	No	Policy	Yes	1
Inclusive procurement and contracting policy	Yes	Policy	No	2
Inclusive procurement and contracting implementation	Yes	Outcomes	No	2
Disparity study of inclusive procurement and contracting	Yes	Evaluation	No	2
High road worker standards for contracting	Yes	Policy	No	2
Municipal building energy benchmarking	No	Outcomes	No	1

Metric	Equity focused	Policymaking stage	Smart growth	Possible points
Municipal building retrofit strategies	No	Policy	No	2
Municipal building sustainable energy efficiency funding	No	Policy	No	2
Low carbon employee transportation benefits	No	Policy	Yes	1

***Cities could receive a maximum of 30 points for actions designed to address energy use in existing buildings. **We categorize offering a portfolio of low-income energy efficiency programs with at least one comprehensive program. We include this because it tracks programs that are inherently designed to incentivize comprehensive whole-building energy improvements for existing homes.**

Appendix B. Additional Methodology Information and Updates

DATA COLLECTION AND REVIEW

Our data collection and review process included outreach to city government staff, local stakeholders in the cities we scored, and clean energy experts nationwide. This outreach occurred in two phases:

- *Data requests to cities and utilities and secondary data collection.* Recent *City Scorecard* data requests were administered by CDP (formerly the Carbon Disclosure Project). This year, we asked local government staff (primarily sustainability staff) to complete a data request that we created using Microsoft Excel and administered ourselves.[1] Each request contained prepopulated policy data from our Local Policy Database and previously completed data requests. We asked local government staff to review and update the information as appropriate and provide new data for any new metrics or in cases where we did not have previously collected data to prepopulate requests.

  Respondents in 55 of the 75 cities returned completed data requests. For the first time, we identified and reached out to at least one CBO in each *Scorecard* city to ask if they would be willing to participate by filling out a copy of the data request sent to city staff and reviewing the report during our external review process. Twenty-one CBOs responded with interest in participating in one or both. Eight of these organizations submitted a data request sharing information about their cities' equity-driven activities.

  We ran a separate data request process for staff at electric and natural gas utilities to collect data on utility-administered clean energy programs. Of the 78 data requests sent to utility contacts, 59 were returned to us. The city and utility staff members who completed and returned data requests are included in table G1 of Appendix G. We also consulted publicly available sources to supplement data request responses.

- *Review and revision.* We applied the scoring methodology detailed in the first chapter of this report and this appendix to the data we collected. Our resulting analysis underwent an initial review by ACEEE staff. We then invited local government staff from all 75 cities assessed, energy utility staff from all pertinent energy utilities, and other clean energy experts to comment on the report. Experts and stakeholders reviewed and commented on the data, the scores, and the methodology.

DATA LIMITATIONS

While our requests for data drew responses from 80% of cities and 76% of utilities, some cities and utilities did not respond to our requests after multiple attempts. When a city or

[1] Sustainability staff would typically coordinate with those in other city departments to respond to questions that pertained to activities outside their day-to-day responsibilities.

utility did not complete a request, ACEEE researchers independently collected data using the most recent publicly available information, including climate action plans, sustainability plans, demand-side management plans, and relevant entities' web pages. In these cases, our reliance on independently collected data may mean that some unreported activities in select cities were overlooked in scoring.[2]

We also found it challenging to validate data cities submitted on the performance of their policies. We required respondents to share supporting documentation that could be used to confirm the answers they provided in data requests; however, we found it easier to confirm the existence of policies than to validate their performance. For example, we could confirm whether cities had established strategies to convert their outdoor public lighting to LEDs; we could not confirm statistics they provided on the number of outdoor lights upgraded to LEDs. We generally accepted cities' performance claims, even when we could not independently validate them.

RESEARCH USED TO INFORM CITY TYPOLOGY DEVELOPMENT

MSA Size and Energy Use

Cities in large and midsize metropolitan statistical area (MSAs) share common geographic, economic, and transportation characteristics that shape their energy use. Large metros, those with more than 1,000,000 people, are more commonly found in U.S. coastal states and the Southwest. Midsize metros, those with a population between 250,000 and 1,000,000, can be found in all regions but tend to dominate the heartland: the Midwest, Great Plains, and South Central regions (Berube 2019).[3] States in the heartland tend to have higher overall per capita energy use, driven largely by high energy consumption in the industrial, transportation, and (to a lesser degree) residential sectors (Francis and Bradley 2018).

Manufacturing companies are more common in midsize than large metros—they employ one in nine midsize metro workers—and this may be associated with the higher industrial energy use observed in heartland states. The health care, hospitality, and retail industries combine with manufacturing to employ 45% of workers in these areas, and available data indicate that these industries operate within some of the highest energy-consuming facilities in the United States (EIA 2016; Berube 2019). Economic and job growth outside these sectors has been limited, and many midsize metros have lagged behind their larger counterparts in economic and job growth primarily because they have faced challenges in attracting professional service employers, and especially technology companies (Berube 2019).

Using city-level energy, economic, and demographic data collected for *Taking Stock: Links between Local Policy and Building Energy Use across the United States*, Samarripas (2022) examined links between cities' per capita energy use and their metros' population size,

[2] We gave a city 0 points if we could not find information for a particular metric despite extensive research.

[3] We use the definition of the heartland outlined by the Walton Family Foundation. For more information, see factbook.theheartlandsummit.org/.

finding that "cities' per capita energy use declines as their metro populations increase, but these declines are noticeably smaller for the largest metros" (Samarripas 2022). Two other variables were found to exhibit similar relationships to metro population size as city per capita energy use—the ratio of employees in personal service and manufacturing jobs compared to professional service (sometimes referred to a white collar) jobs and the size of homes. Taken together, these findings suggest that at least one factor associated with the observation that smaller metro cities consume more energy per capita is the higher prevalence of larger buildings in these places (Samarripas 2022).

Samarripas (2022) also found that midsize metros had higher per household vehicle miles travelled, a transportation energy use intensity indicator. Higher per capita transportation energy use in midsize metros may in part reflect the fact that their residents have more limited transit systems compared with those serving larger MSAs. Our *Scorecard* data reveal that local-level spending on large metro transit systems is an annual average of $172.22 per rider, while local spending on midsize metro systems is an annual average of only $55.08. Our *Scorecard* data also reveal a difference in how cities in large and midsize metros vary in terms of transit access. We scored cities on transit access using the Center for Neighborhood Technology's (CNT) AllTransit Performance Score, which rates transit connectivity, access to jobs, and frequency of service on a scale of 0 to 10. The average score for cities in large metros was 7 while the average score for cities in midsize metros was 5.

City Population Growth and Energy Use

The degree to which cities' populations are growing is also indicative of several economic and energy characteristics. Cities are often motivated to encourage population growth because "it generates immediate development revenue in the form of permit fees, utility fees, property tax increases and sales taxes" (Wogan 2017). Cities with declining populations experience challenges in the form of employment losses, abandoned buildings, a smaller tax base, and limits on city services (Hollander and Németh 2011). However, rapidly growing cities will eventually be responsible for large costs associated with their growth. While developers are often responsible for covering the initial costs of infrastructure for new developments, cities will have to cover the costs to repair and maintain that infrastructure in the years following its creation (Wogan 2017). Analyzing population growth at the MSA level, Gottlieb (2002) and Fodor (2010) both found that rapid urban growth is associated with other outcomes as well: Compared with regions that grow more slowly, rapid urban population growth is associated with lower household incomes, higher unemployment, and greater poverty.

While transportation energy and GHG emissions data at the city level are limited, available data do support the idea that transportation emissions occupy a larger share of total GHG emissions in cities with greater population growth. Gurney et al. (2021) compared self-reported GHG emissions inventory (SRI) data from 43 U.S. cities with emissions totals generated by their Vulcan 3.0 model. In collecting their SRI data, these researchers published complete CO_2 emissions from the transportation activity of 31 cities included in our *City*

Clean Energy Scorecard. Figure B1 shows how the on-road and railroad transportation shares of cities' total GHG emissions compare to city average annual growth rates.[4]

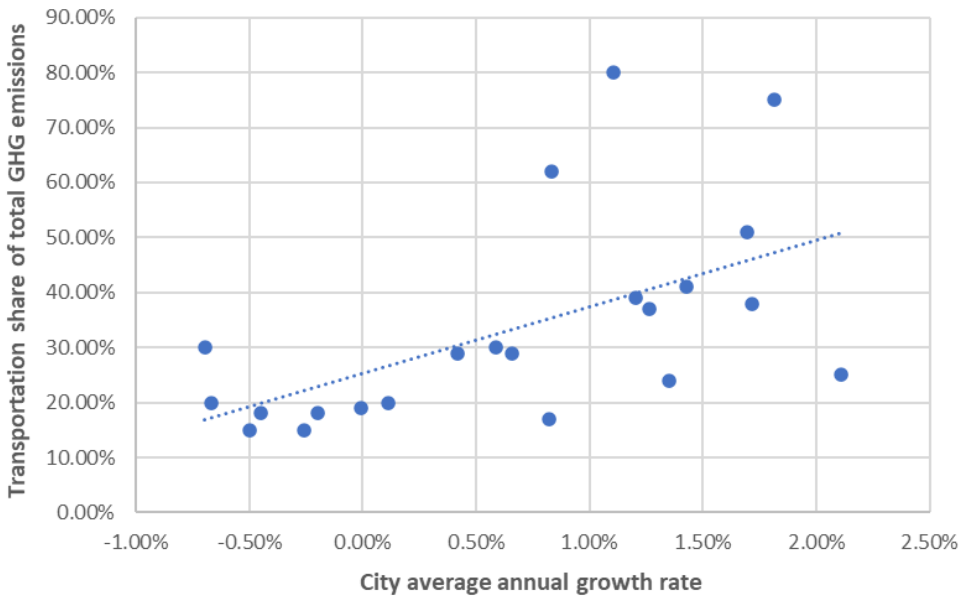

Figure B1. On-road and railroad transportation share of total city GHG emissions

While a city's population growth rate is indicative of its tax base and the share of its total GHG emissions originating in the transportation sector, Samarripas (2022) was unable to identify an association between city population growth rates and per capita energy use. Samarripas et al. (2021) suggested that city growth rates could be indicative of higher per capita energy use and suggested that higher income inequality in these places, having an observed link to higher GHG emissions in other research, could be partially responsible for this association. However, Samarripas (2022) found no indication of these relationships and instead uncovered a link between a city's metro population size and share of total city GHG emissions from transportation, as described above.

METHODOLOGY UPDATES

This year we expanded our analysis of cities' clean energy strategies in several regards. In the sections below we expand on the research that guided our approach and how it informed specific changes in our analysis. The following information is supplementary to that found in Chapter 1.

[4] We have excluded air and commercial marine vessel emissions as these vary considerably from city to city and because this activity may be outside the influence of city policies.

Table B1 summarizes scoring changes by policy area and metric category. We describe improvements in the sections that follow the table.

Table B1. Scoring by policy area and subcategory, with changes in scoring methodology

Policy area and subcategory	Maximum score 2024	Maximum score 2021	Change
Community-wide initiatives	45	15	30
Community-wide goals	19	8	11
Equity-driven approaches to clean energy planning	15	2.5	12.5
Adaptive mitigation*	5	1.5	3.5
Workforce development	6	0	6
Buildings policies	70	30	40
Building energy code adoption	16	10	4
Building energy code compliance	4	3	1
Existing buildings policies	30	12	18
Equity in existing buildings policies	20	3	17
Transportation policies	70	30	40
Sustainable transportation strategies	9	4	5
Location efficiency	17	6	11
Mode shift	14	4	10

Policy area and subcategory	Maximum score 2024	Maximum score 2021	Change
Public transit	13	4	9
Efficient vehicles policies	11	4	7
Freight	6	2	4
Community energy infrastructure**	40	15	25
Utility efficiency savings	7	4.5	2.5
Efficiency efforts in water services	3	4	–1
Energy utility efficiency efforts	16	5.5	10.5
City and utility decarbonization and climate mitigation efforts**	14	3	11
Local government operations	25	10	15
Local government goals	5	4	1
Procurement and construction policies	14	3.5	10.5
Asset management	6	2	4

***We created a new subcategory of metrics in the Community-Wide Initiatives chapter called Adaptive Mitigation, which includes an existing metric tracking cities' urban heat island mitigation efforts and a new metric highlighting the creation of resilience hubs. **We renamed the Energy and Water Utilities chapter from previous Scorecards to Community Energy Infrastructure. In doing so, we added metrics from other chapters tracking cities' decarbonization initiatives alongside the chapter's metrics tracking utility decabornization efforts to form the City and Utility Decarbonization and Climate Mitigation Efforts subcategory.**

Racial and Social Equity Metrics

The past five editions of the *City Scorecard* have included metrics tracking the degree to which cities and their utilities were pursuing racial and social equity outcomes in clean energy planning and policymaking. The 2017 *City Scorecard* was the first to include equity metrics examining utility low-income and multifamily energy efficiency programs. The 2019 edition included additional equity metrics examining equity-driven approaches to local clean energy planning and implementation, inclusivity in workforce development initiatives, renewable energy incentives for low-income households, and city actions designed to increase low-income household access to transit and other energy-efficient, low-carbon transportation options. The 2020 *City Scorecard* revised these existing equity metrics but did not add any new ones.

The 2021 *City Scorecard* made two significant changes in the way points are allocated to equity metrics. Samarripas et al. (2021) created a set-aside 3 points in the Buildings Policies chapter's existing buildings metric. Cities had to earn these 3 equity points to earn the full 15 points available for this metric. Second, the *Scorecard* increased the overall points for equity metrics from 11 to 17 and added 2 additional bonus points for equity metrics. Cities could earn 1 bonus point for utility–CBO partnerships designed to deliver energy efficiency programs more equitably and 1 bonus point for efforts to direct the installation of EV charging equipment to historically marginalized communities.

With guidance from the CBO participants of ACEEE's Leading with Equity Initiative and Energy Equity Working Group, the 2024 *City Scorecard* built upon the changes to equity metrics in the 2021 edition by expanding the list of existing building policy equity metrics, adding new criteria tracking cities' support for underserved commercial buildings to comply with building performance standards, equitable electrification programs, and tracking of programs' equity outcomes.[5] We made the utility–CBO partnership metric a required rather than a bonus metric. Other new equity metrics in this edition include those tracking cities' equity-driven approaches to create resilience hubs in disadvantaged communities, adopt internal procurement and contracting processes that encourage the participation of minority- and women-owned businesses, and set living wages for clean energy workers. We added or expanded equity criteria for twelve additional existing metrics. We increased the equity metrics' share of *Scorecard* points from just under 20% of total points to 35%.

Community-Wide Initiatives

We revised the progress toward climate change mitigation goal to reward points based on the stringency of the city's climate change mitigation goal. We reintroduced a metric recognizing the adoption of community-wide energy reduction goals to acknowledge the diverse nature of these goals. Further, we altered our scoring of carbon-free electricity generation goals by awarding points for progress made toward this goal.

[5] For more on ACEEE's Leading with Equity Initiative, see aceee.org/energy-equity-initiative. For more on ACEEE's Energy Equity Working Group, see aceee.org/energy-equity-working-group.

We moved the distributed energy resources metrics to the Community Energy Infrastructure chapter.

We increased the number of points available in the equity-driven community engagement metric to recognize cities that have institutionalized equity-driven engagement and require new policies and programs to determine the level of community engagement necessary.

We removed the urban heat island mitigation goal and moved the remaining urban heat island mitigation metric to the new adaptive mitigation metric. We also created the resilience hub metric and included it under the adaptive mitigation metric.

Buildings Policies

We created several new metrics related to policies targeting existing buildings. While we already awarded points for energy efficiency incentive programs, we added a new metric on incentive program best practices and characteristics for such programs, including a one-stop shop application model, tailored pathway or component for rental property owners, community-based social marketing campaign, and a trade and real estate ally network.

Most of the changes and additions, however, pertained to equity in policies targeting existing buildings. We expanded a previous metric on building performance standards and support for affordable housing to include an additional building type: underserved commercial buildings. Special considerations for these under-resourced buildings (e.g., extended compliance deadlines and supplemental financial incentive programs) aim to provide equitable energy improvements to historically marginalized groups while avoiding exacerbating high energy burdens and negatively impacting low-income communities. We added a new metric on equitable electrification incentives that include equity considerations, and another on tracking equitable program outcomes.

Previously, equity metrics were capped at 3 points; we removed the cap to allow the maximum of 20 points, meaning that equity metrics in the buildings chapter now make up 40% of points available in policies for existing buildings.

We moved the EV charging infrastructure requirement metric to the Transportation chapter (see details in the following section), but kept the EV-readiness portion of the metric in the Buildings chapter, as such requirements are typically attached to the construction or substantial renovation of buildings. Finally, we added a metric on cities' electrification requirements for new construction.

Transportation Policies

We reworked our location-efficient zoning code metric to award points based on changes made to zoning codes in the past 10 years. Cities that made changes to allow for greater density, mixed-use development, or transit-oriented development scored between 1 and 4 points, depending on the extent of the increase.

We also adjusted our parking requirements metric to clarify what types of policies would score the corresponding points. Cities with areas lacking parking minimums could score between 2 and 4 points, while cities with parking maximums could score between 1 and 4 points, depending on the stringency of the parking maximum and the amount of area covered by the maximum and/or lack of minimum.

We revised the modal share targets metric to provide fewer points if a city had targets for all modes (single-occupant vehicle, transit, and biking/walking) but only for commute trips (1 point). Cities with targets for all modes and all trips earned 2 points.

In the 2021 *City Scorecard*, we used the PlacesForBikes index created by PeopleForBikes to assess bike system efficiency and connectivity. PeopleForBikes changed their methodology in 2023, so this year cities scoring 41 or higher earned 4 points, and those scoring between 32 and 40 earned 2 points.

Also in the 2021 *City Scorecard*, we scored cities based on their complete streets policies. Due to challenges associated with determining the quality of each city's policy, we discontinued this metric.

With increasing numbers of cities creating e-bike rebate programs, we added personal micromobility as a potential subsidized mode in the subsidized access to efficient transportation options metric.

We moved the vehicle charging infrastructure requirements metric from the Buildings Chapter to the Transportation Chapter to group it with other metrics that are scored based on zoning codes. Cities with requirements for new developments to include EV chargers earned 2 points. To highlight the importance of reducing freight emissions, we added a new metric: open data portals. Cities with open data portals that provide at least two types of real-time data that support freight efficiency earned 3 points, and those with portals that provide one type earned 1.5 points.

Finally, we increased the equity points available for this chapter from 3 to 19 points plus 3 bonus points.

While not a change from past years, we wish to highlight that the Transportation chapter is the only chapter in the *Scorecard* in which cities can earn more than 70 points, thanks to the chapter's two bonus metrics.

Community Energy Infrastructure

We made limited changes to our methodology for assessing energy and water utilities.

We revised the approach for scoring utility-administered low-income energy efficiency programs. We increased the total points available if utilities offered *comprehensive* low-income energy efficiency programs, and if such programs were offered in a portfolio, by 1.5 points, respectively. We increased the possible score for leveraging funding sources by 0.5

point, and the possible score if utilities had dedicated funds or programs to reduce deferral rates in weatherization programs by 1 point. We also added two key metrics; utilities can now earn 2 points if their low-income energy efficiency programs have equity-related goals, and 2 points if they have conducted a gap analysis or previously worked with partners to identify barriers to participation in their low-income programs.

We created a new metric that assesses the stringency of electric utility GHG emissions goals. We applied to this metric the same methodology used to score the stringency of community-wide GHG emissions goals.

We also revised our metric tracking city-led efforts to decarbonize the electric grid by scoring cities with municipal electric utilities on their utilities' GHG emissions intensity.

We revised our metric assessing joint water- and energy-saving programs to award points only for programs that offer or incentivize deep water-saving measures. We also increased the points for this metric from 0.5 to 1 point.

We awarded 1 point for water utilities' internal energy efficiency programs only if the utility has adopted a strategic and comprehensive energy management approach that incorporates both capital improvements (e.g., equipment replacement and building shell upgrades) and operational improvements (e.g., active energy management, audits, and retrocommissioning). To earn 1 point, the city or utility had to provide data on results of their completed retrofit projects, such as the number of buildings that have undergone retrofits or the cost of energy savings.

Local Government Operations

We significantly expanded the points and metrics for inclusive procurement and construction policies. In the 2021 edition, cities could earn 0.5 points for an inclusive procurement and contracting policy when they could demonstrate that the policy had been applied to a clean energy project; these points made up 5% of the total points available in the chapter. In the 2023 edition, cities were scored on four metrics related to inclusive procurement and construction, with a maximum of 8 points available, totaling to 32% of points available in this chapter. The expansion of these metrics prioritized how procurement and construction policies are applied to advance equitable outcomes.

We created a new metric to assess benefits for municipal staff for reduced-emission transportation options. Cities could earn 1 point if they provide clean or reduced-emission transportation benefits to municipal employees and if they showed data on emissions reductions from or employee use of the benefit.

Carbon-Free Electricity Goal Stringency and Progress Methodology

We first calculated the difference between a city's targeted carbon-free electricity percentage and the carbon-free energy mix of a city's electricity consumption at or near the

time the goal was adopted.[6] We then multiplied this percentage by the city's per household electricity consumption in the year closest to the goal's adoption.[7] This results in a kilowatt-hour (kWh) per household value. We consider this value as the preliminary carbon-free electricity conversion target for cities because it provides the closest estimate of the kWh per household that would need to be converted to carbon-free sources (and away from carbon-emitting sources) given the data that were available when the city adopted the goal. If per household electricity consumption were to remain unchanged over future years, this value could be used to calculate the total kWh that would need to be generated from carbon-free sources to achieve the city's goal given population changes.

However, it is unlikely that electricity consumption will remain unchanged. To account for changes in electricity use, we assumed that it will decline at an annual rate of 0.71%, using data from Samarripas and de Campos Lopes (2020). We assumed that this decline continues through 2030 and that electricity use remains unchanged in subsequent years through the target date. We did not project electricity use changes after 2030 because it is difficult to anticipate electricity trends that far in the future.

Using the preliminary carbon-free electricity conversion target as a baseline, we projected for each city the kWh per household that would need to be generated from carbon-free sources in the target year assuming electricity use declines at an annual rate of 0.71% through 2030 and remains flat thereafter through a goal's target date. We then divided this final carbon-free conversion target by the total years between the electricity data vintage closest to the city goal's adoption and that goal's target year. This annual carbon-free electricity conversion target was used to compare the stringency of city goals.

As with GHG mitigation goal stringency, we calculated a carbon-free electricity conversion target for each city because most cities do not set goals along the same timelines.[8] We did not assess sector-specific carbon-free electricity goals for stringency.

We refined our approach this year to score city progress toward their carbon-free electricity goal. To score progress, we first collected all available electricity data. We then collected the percentage of carbon-free energy supplied to the grid for the corresponding years in which

[6] We used the share of a city's electricity generated from carbon-free sources if the city had a carbon-free electricity goal. If a city had a solar generation capacity goal, we converted its capacity target to kWh by assuming that solar PV operated with a capacity factor of 25%, consistent with the U.S. average (EIA 2019).

[7] We normalized total electricity data so that conversion targets could be compared in relative terms rather than absolute terms. We primarily used city-recorded community-wide electricity data and normalized by the number of households. However, in cases where these data were unavailable, we used utility electricity data and normalized by the number of residential utility customers, which is the only population information that utilities regularly record. Therefore, normalizing electricity by the number of households allows us to maintain the greatest degree of comparability possible when scoring conversion targets.

[8] Cities reporting that at least 90% of their electricity was generated from renewable or carbon-free energy sources received 2 points in lieu of credit for the stringency of a community-wide renewable or carbon-free electricity target.

the city had data available. We collected this data from resources such as city climate action plans, energy plans, GHG emissions inventories, and/or energy utility reports or disclosures. We then multiplied these two values to find the total megawatt-hours of electricity provided by carbon-free electricity in a given year. Next, we found the carbon-free electricity supplied per household and then found the average annual increase in the carbon-free electricity supplied on a household basis. This value was then compared to the conversion target to assess whether the city was adding enough carbon-free electricity to achieve their goal. We considered cities with average annual increases per household equal to or greater than their conversion target to be on track to achieve their goal. Austin, Texas, was the only city on track to achieve their goal. We also gave full points to cities with 90% or greater carbon-free electricity supply. Seattle and San José were the two cities to earn points in this way.

Further, we awarded points for the total proportion of carbon-free electric resources supplied in the year the city adopted the goal. This was done to control for the effect that a city's initial carbon-free electricity supply has on our scoring of conversion targets (i.e., the annual carbon-free kWh increase per household). Moreover, we took this approach for community-wide carbon-free electricity goals but not for municipal carbon-free electricity goals because the community-wide carbon-free electricity supply is often outside the direct control of the city, whereas municipal governments often have direct control of their carbon-free electricity consumption.

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Appendix C. City Typology Classifications

Table C1. Breakdown of city typology groups by MSA population size and average annual city population change

City	State	2021 MSA population	MSA classification	2011–2021 average annual city population change	City growth classification
Akron	OH	700,015	Midsize	–0.520%	Stable
Albuquerque	NM	921,311	Midsize	0.143%	Stable
Atlanta	GA	6,144,970	Large	1.264%	Accelerating
Aurora	CO	2,972,567	Large	1.566%	Accelerating
Austin	TX	2,352,426	Large	2.506%	Accelerating
Baltimore	MD	2,838,327	Large	–0.827%	Stable
Boise	ID	801,470	Midsize	1.255%	Accelerating
Boston	MA	4,899,932	Large	0.306%	Stable
Bridgeport	CT	959,768	Midsize	0.151%	Stable
Charleston	SC	813,052	Midsize	2.126%	Accelerating
Charlotte	NC	2,701,046	Large	1.421%	Accelerating
Chattanooga	TN	567,395	Midsize	0.686%	Accelerating
Chicago	IL	9,510,390	Large	–0.071%	Stable
Chula Vista	CA	3,286,069	Large	1.048%	Accelerating
Cincinnati	OH	2,261,665	Large	0.456%	Stable

City	State	2021 MSA population	MSA classification	2011–2021 average annual city population change	City growth classification
Cleveland	OH	2,075,662	Large	–0.667%	Stable
Columbus	OH	2,151,017	Large	1.272%	Accelerating
Dallas	TX	7,759,615	Large	0.428%	Stable
Denver	CO	2,972,567	Large	1.294%	Accelerating
Des Moines	IA	719,146	Midsize	0.312%	Stable
Detroit	MI	4,365,205	Large	–1.133%	Stable
Durham	NC	654,012	Midsize	1.979%	Accelerating
Fayetteville	AR	558,507	Midsize	2.421%	Accelerating
Fresno	CA	1,013,581	Large	0.822%	Accelerating
Grand Rapids	MI	1,091,620	Large	0.404%	Stable
Hartford	CT	1,211,906	Large	–0.388%	Stable
Honolulu	HI	1,000,890	Large	0.002%	Stable
Houston	TX	7,206,841	Large	0.634%	Stable
Indianapolis	IN	2,129,479	Large	0.607%	Stable
Kansas City	KS	2,199,544	Large	0.706%	Accelerating
Knoxville	TN	893,002	Midsize	0.623%	Stable
Lansing	MI	540,281	Midsize	–0.148%	Stable

City	State	2021 MSA population	MSA classification	2011–2021 average annual city population change	City growth classification
Las Vegas	NV	2,292,476	Large	0.908%	Accelerating
Long Beach	CA	12,997,353	Large	–0.279%	Stable
Louisville	KY	1,284,826	Large	3.019%	Accelerating
Madison	WI	683,183	Midsize	1.273%	Accelerating
Memphis	TN	1,336,438	Large	–0.463%	Stable
Mesa	AZ	4,946,145	Large	1.349%	Accelerating
Miami	FL	6,091,747	Large	0.713%	Accelerating
Milwaukee	WI	1,566,487	Large	–0.559%	Stable
Nashville	TN	2,013,506	Large	0.961%	Accelerating
New Haven	CT	863,700	Midsize	0.367%	Stable
New Orleans	LA	1,261,726	Large	0.240%	Stable
Orlando	FL	2,691,925	Large	2.427%	Accelerating
Oxnard	CA	839,784	Midsize	0.027%	Stable
Philadelphia	PA	6,228,601	Large	0.207%	Stable
Phoenix	AZ	4,946,145	Large	0.995%	Accelerating
Pittsburgh	PA	2,353,538	Large	–0.210%	Stable
Providence	RI	1,675,774	Large	0.701%	Accelerating

City	State	2021 MSA population	MSA classification	2011–2021 average annual city population change	City growth classification
Raleigh	NC	1,448,411	Large	1.152%	Accelerating
Reno	NV	496,997	Midsize	1.702%	Accelerating
Richmond	VA	1,317,525	Large	0.838%	Accelerating
Riverside	CA	4,653,105	Large	0.142%	Stable
Rochester	NY	1,084,973	Large	0.009%	Stable
Sacramento	CA	2,411,428	Large	1.108%	Accelerating
Saint Paul	MN	3,690,512	Large	0.615%	Stable
Salt Lake City	UT	1,263,061	Large	0.645%	Accelerating
San Antonio	TX	2,601,788	Large	0.581%	Stable
San Diego	CA	3,286,069	Large	0.362%	Stable
Spokane	WA	593,466	Midsize	1.000%	Accelerating
Springfield	MA	695,305	Midsize	0.091%	Stable
St. Louis	MO	2,806,615	Large	–0.896%	Stable
St. Petersburg	FL	3,219,514	Large	0.524%	Stable
Tampa	FL	3,219,514	Large	1.217%	Accelerating
Toledo	OH	644,217	Midsize	–0.622%	Stable
Tucson	AZ	1,052,030	Large	0.398%	Stable

Appendix D. Top-Scoring Cities by Clean Energy Aims

Table D1. Cities by racial and social equity total score

City	Points
San Francisco	50
Seattle	45
Minneapolis	43.5
Portland	43
Denver	42.5
Oakland	39
New York	38.5
Washington, DC	38.5
Boston	36
Los Angeles	36
Chicago	35.5
San José	34.5
Atlanta	31.5
Charlotte	31.5
Baltimore	30
Philadelphia	29

City	Points
Saint Paul	28
Austin	27
Madison	25.5
Knoxville	24.5
Nashville	23
Albuquerque	22.5
Orlando	22
Pittsburgh	22
Honolulu	21
Kansas City	21
Providence	21
Sacramento	21
San Diego	20.5
Detroit	20
Columbus	19.5
New Orleans	19
Raleigh	19
Fresno	18.5

City	Points
St. Louis	18.5
Dallas	18
Springfield	18
Cleveland	17
Grand Rapids	17
Hartford	16.5
Riverside	16.5
San Antonio	16.5
Chula Vista	15.5
Houston	15.5
Cincinnati	15
Durham	15
Milwaukee	14.5
New Haven	14
Phoenix	14
Des Moines	13
Richmond	13
Rochester	13

City	Points
Miami	12.5
Memphis	12
Aurora	11.5
Las Vegas	10.5
Oxnard	10.5
Salt Lake City	10.5
Akron	10
Long Beach	9.5
Toledo	9.5
Indianapolis	8.5
Tampa	8.5
Bridgeport	7
Lansing	7
Boise	6
Tucson	6
Charleston	5.5
Louisville	4.5
Reno	4.5

City	Points
Spokane	4.5
St. Petersburg	3
Chattanooga	2
Mesa	2
Fayetteville	1

Table D2. Cities by policy and program performance total score

City	Points
Seattle	57
San Francisco	56.5
Oakland	54
Minneapolis	53.5
Portland	51
San José	50
Washington, DC	49.5
Los Angeles	48.5
Denver	46.5
Boston	45.5
San Diego	41
Chicago	38.5
Philadelphia	38
New York	36
Orlando	36
Atlanta	33
Madison	33
Saint Paul	32

City	Points
Providence	30.5
Baltimore	30
Pittsburgh	30
Austin	29.5
Cleveland	29.5
Chula Vista	29
Las Vegas	28.5
Sacramento	28
San Antonio	28
Honolulu	27
Columbus	24.5
Salt Lake City	24.5
Kansas City	23
Riverside	23
Miami	21.5
Phoenix	21.5
Charlotte	21
Cincinnati	20.5
Detroit	19.5
Nashville	19.5
New Haven	19.5
Springfield	19.5
Memphis	19
Grand Rapids	18.5
Hartford	18.5
Houston	18.5
Long Beach	18.5
Fayetteville	18
St. Louis	17.5
Knoxville	17
Boise	16.5
Des Moines	16.5

City	Points
New Orleans	16.5
Albuquerque	16
Milwaukee	15.5
Fresno	15
Richmond	15
Rochester	15
Indianapolis	14
Oxnard	14
Raleigh	12.5
Aurora	12
Charleston	11
Spokane	11
St. Petersburg	11
Toledo	11
Dallas	10.5
Louisville	10.5
Tucson	10.5
Durham	9.5
Lansing	9.5
Mesa	9.5
Bridgeport	9
Reno	7.5
Chattanooga	6
Akron	4
Tampa	3.5

Table D3. Cities by smart growth total score

City	Points
New York	64
San Francisco	59
Denver	57.5
Portland	56.5

City	Points
Washington, DC	54.5
Seattle	52
Oakland	47
Minneapolis	46.5
Los Angeles	44.5
Sacramento	41.5
San José	41.5
Boston	40
St. Louis	38
Atlanta	36.5
Chicago	35.5
Long Beach	33
Charlotte	32
Baltimore	31
San Diego	31
Madison	29.5
Pittsburgh	29.5
Philadelphia	28.5
Saint Paul	28.5
Austin	28
Chula Vista	27.5
Riverside	27
Miami	26.5
Salt Lake City	26.5
Orlando	25.5
Fresno	25
Honolulu	24.5
New Orleans	24
Spokane	24
Hartford	23.5
Kansas City	23.5
Nashville	23.5

City	Points
Oxnard	22
Las Vegas	21.5
New Haven	20
Houston	19.5
Milwaukee	19.5
Raleigh	19.5
Cleveland	19
Columbus	19
Detroit	19
Tucson	19
Aurora	18
Albuquerque	17
Richmond	17
Knoxville	16.5
Phoenix	16.5
Springfield	16.5
Grand Rapids	16
Providence	15.5
Lansing	15
Cincinnati	14.5
Des Moines	14.5
Rochester	14
Dallas	13
Memphis	12.5
San Antonio	12.5
Indianapolis	12
St. Petersburg	12
Tampa	12
Boise	11.5
Louisville	11.5
Bridgeport	9.5
Fayetteville	9

City	Points
Chattanooga	8
Durham	8
Akron	6.5
Mesa	6.5
Charleston	6
Toledo	6
Reno	5

Appendix E. Comprehensive Scores

COMMUNITY-WIDE INITIATIVES

Table E1. Community-wide climate mitigation and energy goals scores (out of 19 possible points)

City	Energy reduction goal	Initial carbon-free electricity percentage	Carbon-free electricity goal progress	Carbon-free electricity goal stringency	Climate goal stringency	Climate goal progress	Total
Denver	3.0	2.0	0.0	2.0	3.0	6.0	16.0
Oakland	3.0	2.0	3.0	2.0	1.5	4.5	16.0
San José	3.0	2.0	3.0	2.0	1.5	4.5	16.0
Los Angeles	3.0	2.0	0.0	1.0	3.0	6.0	15.0
San Diego	3.0	2.0	0.0	1.0	1.5	4.5	12.0
Seattle	3.0	2.0	3.0	2.0	1.5	0.0	11.5
Austin	3.0	2.0	3.0	0.0	3.0	0.0	11.0
Minneapolis	3.0	2.0	0.0	2.0	0.0	3.0	10.0
Orlando	3.0	0.0	0.0	1.0	1.5	4.5	10.0
Columbus	3.0	2.0	0.0	1.0	3.0	0.0	9.0
Las Vegas	3.0	2.0	0.0	1.0	3.0	0.0	9.0
Riverside	3.0	2.0	3.0	1.0	0.0	0.0	9.0
San Francisco	0.0	2.0	3.0	1.0	0.0	3.0	9.0
San Antonio	3.0	0.0	3.0	1.0	1.5	0.0	8.5
Atlanta	0.0	0.0	0.0	2.0	1.5	4.5	8.0
Chula Vista	3.0	2.0	0.0	0.0	3.0	0.0	8.0
Miami	3.0	0.0	0.0	2.0	1.5	1.5	8.0
Philadelphia	0.0	2.0	0.0	0.0	1.5	4.5	8.0
Portland	3.0	0.0	0.0	2.0	3.0	0.0	8.0
Saint Paul	3.0	2.0	0.0	0.0	3.0	0.0	8.0
Washington, DC	3.0	0.0	0.0	2.0	3.0	0.0	8.0
Boise	3.0	2.0	0.0	1.0	1.5	0.0	7.5
Sacramento	3.0	2.0	0.0	1.0	0.0	1.5	7.5
Chicago	3.0	0.0	0.0	1.0	0.0	3.0	7.0
Cincinnati	3.0	0.0	0.0	1.0	0.0	3.0	7.0

City	Energy reduction goal	Initial carbon-free electricity percentage	Carbon-free electricity goal progress	Carbon-free electricity goal stringency	Climate goal stringency	Climate goal progress	Total
Cleveland	3.0	0.0	0.0	1.0	0.0	3.0	7.0
Honolulu	0.0	0.0	3.0	1.0	3.0	0.0	7.0
Fayetteville	3.0	2.0	0.0	0.0	1.5	0.0	6.5
Oxnard	0.0	0.0	3.0	2.0	1.5	0.0	6.5
Des Moines	0.0	2.0	0.0	1.0	3.0	0.0	6.0
Kansas City	3.0	0.0	0.0	0.0	0.0	3.0	6.0
New Orleans	3.0	2.0	0.0	1.0	0.0	0.0	6.0
Phoenix	0.0	0.0	0.0	0.0	1.5	4.5	6.0
Pittsburgh	3.0	2.0	0.0	1.0	0.0	0.0	6.0
Reno	3.0	0.0	0.0	1.0	1.5	0.0	5.5
Louisville	3.0	0.0	0.0	2.0	0.0	0.0	5.0
St. Louis	0.0	0.0	0.0	2.0	1.5	1.5	5.0
Memphis	0.0	2.0	0.0	1.0	1.5	0.0	4.5
Providence	0.0	2.0	0.0	0.0	1.5	0.0	3.5
Salt Lake City	0.0	0.0	0.0	2.0	1.5	0.0	3.5
Albuquerque	0.0	0.0	0.0	0.0	3.0	0.0	3.0
Aurora	0.0	0.0	0.0	0.0	0.0	3.0	3.0
Boston	0.0	0.0	0.0	0.0	1.5	1.5	3.0
Charleston	0.0	0.0	0.0	0.0	3.0	0.0	3.0
Detroit	3.0	0.0	0.0	0.0	0.0	0.0	3.0
Grand Rapids	0.0	0.0	0.0	0.0	3.0	0.0	3.0
Houston	0.0	0.0	0.0	0.0	3.0	0.0	3.0
Indianapolis	0.0	0.0	0.0	0.0	3.0	0.0	3.0
Knoxville	0.0	0.0	0.0	0.0	0.0	3.0	3.0
Lansing	0.0	0.0	0.0	0.0	3.0	0.0	3.0
Madison	3.0	0.0	0.0	0.0	0.0	0.0	3.0
New Haven	0.0	0.0	0.0	0.0	3.0	0.0	3.0
Richmond	0.0	0.0	0.0	0.0	0.0	3.0	3.0
Mesa	0.0	0.0	0.0	1.0	1.5	0.0	2.5
St. Petersburg	0.0	0.0	0.0	2.0	0.0	0.0	2.0

City	Energy reduction goal	Initial carbon-free electricity percentage	Carbon-free electricity goal progress	Carbon-free electricity goal stringency	Climate goal stringency	Climate goal progress	Total
Baltimore	0.0	0.0	0.0	0.0	1.5	0.0	1.5
Chattanooga	0.0	0.0	0.0	0.0	1.5	0.0	1.5
Dallas	0.0	0.0	0.0	0.0	1.5	0.0	1.5
Hartford	0.0	0.0	0.0	0.0	1.5	0.0	1.5
Milwaukee	0.0	0.0	0.0	0.0	1.5	0.0	1.5
Spokane	0.0	0.0	0.0	0.0	1.5	0.0	1.5
Akron	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bridgeport	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Charlotte	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Durham	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fresno	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Long Beach	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nashville	0.0	0.0	0.0	0.0	0.0	0.0	0.0
New York	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Raleigh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rochester	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Springfield	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tampa	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Toledo	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tucson	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table E2. Equity-driven climate action and clean energy planning, implementation, and evaluation scores (out of 15 possible points)

City	Equity-driven engagement	Equity-driven decision making	Accountability to equity	Total
Portland	2.5	5.0	5.0	12.5
Seattle	2.5	5.0	5.0	12.5
Minneapolis	2.5	2.5	5.0	10.0
Philadelphia	2.5	2.5	5.0	10.0
San Francisco	2.5	2.5	5.0	10.0

City	Equity-driven engagement	Equity-driven decision making	Accountability to equity	Total
Washington, DC	2.5	2.5	5.0	10.0
Albuquerque	0.0	2.5	5.0	7.5
Charlotte	2.5	0.0	5.0	7.5
Los Angeles	2.5	2.5	2.5	7.5
Oakland	5.0	0.0	2.5	7.5
Providence	2.5	2.5	2.5	7.5
Saint Paul	2.5	2.5	2.5	7.5
San Antonio	0.0	2.5	5.0	7.5
San José	2.5	2.5	2.5	7.5
Austin	0.0	2.5	2.5	5.0
Baltimore	0.0	0.0	5.0	5.0
Boston	2.5	0.0	2.5	5.0
Cincinnati	2.5	0.0	2.5	5.0
Dallas	2.5	0.0	2.5	5.0
Denver	2.5	0.0	2.5	5.0
Des Moines	0.0	0.0	5.0	5.0
Knoxville	2.5	2.5	0.0	5.0
Nashville	0.0	0.0	5.0	5.0
New York	0.0	2.5	2.5	5.0
Orlando	2.5	0.0	2.5	5.0
Phoenix	2.5	2.5	0.0	5.0
Richmond	0.0	2.5	2.5	5.0
Sacramento	2.5	2.5	0.0	5.0
Atlanta	0.0	0.0	2.5	2.5
Chicago	0.0	0.0	2.5	2.5
Chula Vista	0.0	0.0	2.5	2.5
Cleveland	0.0	0.0	2.5	2.5
Detroit	2.5	0.0	0.0	2.5
Grand Rapids	0.0	2.5	0.0	2.5
Honolulu	0.0	0.0	2.5	2.5
Houston	2.5	0.0	0.0	2.5

City	Equity-driven engagement	Equity-driven decision making	Accountability to equity	Total
Indianapolis	2.5	0.0	0.0	2.5
Kansas City	2.5	0.0	0.0	2.5
Las Vegas	2.5	0.0	0.0	2.5
Long Beach	2.5	0.0	0.0	2.5
Miami	2.5	0.0	0.0	2.5
Milwaukee	0.0	2.5	0.0	2.5
New Orleans	2.5	0.0	0.0	2.5
Pittsburgh	0.0	0.0	2.5	2.5
Raleigh	0.0	0.0	2.5	2.5
San Diego	0.0	0.0	2.5	2.5
Springfield	2.5	0.0	0.0	2.5
Toledo	0.0	0.0	2.5	2.5
Akron	0.0	0.0	0.0	0.0
Aurora	0.0	0.0	0.0	0.0
Boise	0.0	0.0	0.0	0.0
Bridgeport	0.0	0.0	0.0	0.0
Charleston	0.0	0.0	0.0	0.0
Chattanooga	0.0	0.0	0.0	0.0
Columbus	0.0	0.0	0.0	0.0
Durham	0.0	0.0	0.0	0.0
Fayetteville	0.0	0.0	0.0	0.0
Fresno	0.0	0.0	0.0	0.0
Hartford	0.0	0.0	0.0	0.0
Lansing	0.0	0.0	0.0	0.0
Louisville	0.0	0.0	0.0	0.0
Madison	0.0	0.0	0.0	0.0
Memphis	0.0	0.0	0.0	0.0
Mesa	0.0	0.0	0.0	0.0
New Haven	0.0	0.0	0.0	0.0
Oxnard	0.0	0.0	0.0	0.0
Reno	0.0	0.0	0.0	0.0

City	Equity-driven engagement	Equity-driven decision making	Accountability to equity	Total
Riverside	0.0	0.0	0.0	0.0
Rochester	0.0	0.0	0.0	0.0
Salt Lake City	0.0	0.0	0.0	0.0
Spokane	0.0	0.0	0.0	0.0
St. Louis	0.0	0.0	0.0	0.0
St. Petersburg	0.0	0.0	0.0	0.0
Tampa	0.0	0.0	0.0	0.0
Tucson	0.0	0.0	0.0	0.0

Table E3. Adaptive mitigation scores (out of 5 possible points)

City	Heat island mitigation	Resilience hubs	Total
Atlanta	3.0	2.0	5.0
New Orleans	3.0	2.0	5.0
Baltimore	2.0	2.0	4.0
Cincinnati	2.0	2.0	4.0
Columbus	2.0	2.0	4.0
Dallas	2.0	2.0	4.0
Houston	2.0	2.0	4.0
Kansas City	2.0	2.0	4.0
Minneapolis	2.0	2.0	4.0
San Francisco	2.0	2.0	4.0
San José	2.0	2.0	4.0
Washington, DC	2.0	2.0	4.0
Boston	3.0	0.0	3.0
Denver	1.0	2.0	3.0
Hartford	3.0	0.0	3.0
Los Angeles	3.0	0.0	3.0
Louisville	3.0	0.0	3.0
Miami	3.0	0.0	3.0
Nashville	3.0	0.0	3.0
Orlando	3.0	0.0	3.0
San Antonio	3.0	0.0	3.0
Seattle	3.0	0.0	3.0
Austin	2.0	0.0	2.0
Charlotte	2.0	0.0	2.0
Chicago	2.0	0.0	2.0
Cleveland	2.0	0.0	2.0
Detroit	0.0	2.0	2.0
Grand Rapids	2.0	0.0	2.0
Indianapolis	2.0	0.0	2.0
Long Beach	2.0	0.0	2.0

City	Heat island mitigation	Resilience hubs	Total
Milwaukee	2.0	0.0	2.0
New York	2.0	0.0	2.0
Philadelphia	2.0	0.0	2.0
Phoenix	2.0	0.0	2.0
Portland	2.0	0.0	2.0
Providence	2.0	0.0	2.0
Raleigh	2.0	0.0	2.0
Riverside	2.0	0.0	2.0
Sacramento	2.0	0.0	2.0
Salt Lake City	2.0	0.0	2.0
St. Petersburg	2.0	0.0	2.0
Tampa	2.0	0.0	2.0
Albuquerque	1.0	0.0	1.0
Boise	1.0	0.0	1.0
Chula Vista	1.0	0.0	1.0
Knoxville	1.0	0.0	1.0
Las Vegas	1.0	0.0	1.0
Madison	1.0	0.0	1.0
Mesa	1.0	0.0	1.0
New Haven	1.0	0.0	1.0
Oakland	1.0	0.0	1.0
Oxnard	1.0	0.0	1.0
Pittsburgh	1.0	0.0	1.0
Richmond	1.0	0.0	1.0
Spokane	1.0	0.0	1.0
St. Louis	1.0	0.0	1.0
Toledo	1.0	0.0	1.0
Tucson	1.0	0.0	1.0
Akron	0.0	0.0	0.0
Aurora	0.0	0.0	0.0
Bridgeport	0.0	0.0	0.0

City	Heat island mitigation	Resilience hubs	Total
Charleston	0.0	0.0	0.0
Chattanooga	0.0	0.0	0.0
Des Moines	0.0	0.0	0.0
Durham	0.0	0.0	0.0
Fayetteville	0.0	0.0	0.0
Fresno	0.0	0.0	0.0
Honolulu	0.0	0.0	0.0
Lansing	0.0	0.0	0.0
Memphis	0.0	0.0	0.0
Reno	0.0	0.0	0.0
Rochester	0.0	0.0	0.0
Saint Paul	0.0	0.0	0.0
San Diego	0.0	0.0	0.0
Springfield	0.0	0.0	0.0

Table E4. Workforce development scores (out of 6 possible points)

City	Programs for disadvantaged workers	Programs for the broader community	Outcome tracking	Total
Minneapolis	2.0	2.0	2.0	6.0
Seattle	2.0	2.0	2.0	6.0
Charlotte	0.0	2.0	2.0	4.0
Denver	0.0	2.0	2.0	4.0
San Francisco	2.0	0.0	2.0	4.0
San José	2.0	0.0	2.0	4.0
Atlanta	2.0	0.0	0.0	2.0
Boston	2.0	0.0	0.0	2.0
Columbus	2.0	0.0	0.0	2.0
Dallas	2.0	0.0	0.0	2.0
Houston	0.0	2.0	0.0	2.0
Los Angeles	0.0	2.0	0.0	2.0

City	Programs for disadvantaged workers	Programs for the broader community	Outcome tracking	Total
Madison	0.0	2.0	0.0	2.0
Miami	0.0	2.0	0.0	2.0
Milwaukee	0.0	2.0	0.0	2.0
New Orleans	2.0	0.0	0.0	2.0
New York	0.0	2.0	0.0	2.0
Orlando	0.0	2.0	0.0	2.0
Philadelphia	0.0	2.0	0.0	2.0
Pittsburgh	0.0	2.0	0.0	2.0
Portland	0.0	2.0	0.0	2.0
Raleigh	0.0	2.0	0.0	2.0
Reno	0.0	2.0	0.0	2.0
San Antonio	0.0	2.0	0.0	2.0
St. Louis	0.0	2.0	0.0	2.0
Washington, DC	2.0	0.0	0.0	2.0
Akron	0.0	0.0	0.0	0.0
Albuquerque	0.0	0.0	0.0	0.0
Aurora	0.0	0.0	0.0	0.0
Austin	0.0	0.0	0.0	0.0
Baltimore	0.0	0.0	0.0	0.0
Boise	0.0	0.0	0.0	0.0
Bridgeport	0.0	0.0	0.0	0.0
Charleston	0.0	0.0	0.0	0.0
Chattanooga	0.0	0.0	0.0	0.0
Chicago	0.0	0.0	0.0	0.0
Chula Vista	0.0	0.0	0.0	0.0
Cincinnati	0.0	0.0	0.0	0.0
Cleveland	0.0	0.0	0.0	0.0
Des Moines	0.0	0.0	0.0	0.0
Detroit	0.0	0.0	0.0	0.0
Durham	0.0	0.0	0.0	0.0

City	Programs for disadvantaged workers	Programs for the broader community	Outcome tracking	Total
Fayetteville	0.0	0.0	0.0	0.0
Fresno	0.0	0.0	0.0	0.0
Grand Rapids	0.0	0.0	0.0	0.0
Hartford	0.0	0.0	0.0	0.0
Honolulu	0.0	0.0	0.0	0.0
Indianapolis	0.0	0.0	0.0	0.0
Kansas City	0.0	0.0	0.0	0.0
Knoxville	0.0	0.0	0.0	0.0
Lansing	0.0	0.0	0.0	0.0
Las Vegas	0.0	0.0	0.0	0.0
Long Beach	0.0	0.0	0.0	0.0
Louisville	0.0	0.0	0.0	0.0
Memphis	0.0	0.0	0.0	0.0
Mesa	0.0	0.0	0.0	0.0
Nashville	0.0	0.0	0.0	0.0
New Haven	0.0	0.0	0.0	0.0
Oakland	0.0	0.0	0.0	0.0
Oxnard	0.0	0.0	0.0	0.0
Phoenix	0.0	0.0	0.0	0.0
Providence	0.0	0.0	0.0	0.0
Richmond	0.0	0.0	0.0	0.0
Riverside	0.0	0.0	0.0	0.0
Rochester	0.0	0.0	0.0	0.0
Sacramento	0.0	0.0	0.0	0.0
Saint Paul	0.0	0.0	0.0	0.0
Salt Lake City	0.0	0.0	0.0	0.0
San Diego	0.0	0.0	0.0	0.0
Spokane	0.0	0.0	0.0	0.0
Springfield	0.0	0.0	0.0	0.0
St. Petersburg	0.0	0.0	0.0	0.0

City	Programs for disadvantaged workers	Programs for the broader community	Outcome tracking	Total
Tampa	0.0	0.0	0.0	0.0
Toledo	0.0	0.0	0.0	0.0
Tucson	0.0	0.0	0.0	0.0

BUILDINGS POLICIES

Table E5. Scores for energy code adoption

City	Residential energy code (4 pts)	Commercial energy code (4 pts)	Advocacy (4 pts)*	Renewable readiness (2 pts)	EV readiness (2 pts)	Low-energy-use requirement (1 pt)	Electrification (3 pts)	Total (16 pts)
Oakland	4.0	4.0	0.0	2.0	2.0	1.0	3.0	16.0
San José	4.0	4.0	0.0	2.0	2.0	1.0	3.0	16.0
San Francisco	4.0	4.0	0.0	2.0	2.0	1.0	3.0	16.0
Los Angeles	4.0	4.0	0.0	2.0	2.0	0.5	3.0	15.5
Sacramento	4.0	4.0	0.0	2.0	2.0	0.5	3.0	15.5
Riverside	4.0	4.0	0.0	2.0	2.0	0.0	3.0	15.0
Oxnard	4.0	4.0	0.0	2.0	2.0	1.0	1.5	14.5
New York	3.0	4.0	0.0	2.0	2.0	0.5	3.0	14.5
San Diego	4.0	4.0	0.0	2.0	2.0	0.5	1.5	14.0
Fresno	4.0	4.0	0.0	2.0	2.0	0.0	1.5	13.5
Denver	3.0	2.0	0.0	2.0	2.0	1.0	3.0	13.0
Long Beach	3.0	4.0	0.0	2.0	2.0	0.5	1.5	13.0
Seattle	1.5	1.5	2.0	2.0	2.0	0.5	3.0	12.5
Chula Vista	4.0	4.0	0.0	2.0	1.0	0.0	1.5	12.5
Kansas City	4.0	3.0	0.0	2.0	2.0	0.5	0.0	11.5
Washington, DC	1.0	2.0	0.0	2.0	2.0	1.0	3.0	11.0
San Antonio	3.0	3.0	0.0	2.0	2.0	0.5	0.0	10.5
Spokane	1.5	1.5	2.0	2.0	0.0	0.5	3.0	10.5
Boston	1.5	1.5	2.0	2.0	2.0	1.0	0.0	10.0
Minneapolis	1.5	1.0	4.0	1.0	2.0	0.5	0.0	10.0
Chicago	3.0	2.0	0.0	2.0	2.0	0.5	0.0	9.5
Austin	3.0	3.0	0.0	2.0	0.0	1.0	0.0	9.0
Boise	1.5	1.0	4.0	1.0	1.0	0.5	0.0	9.0
Portland	0.5	1.5	2.0	2.0	2.0	1.0	0.0	9.0
Miami	0.0	1.0	4.0	1.0	2.0	1.0	0.0	9.0
Memphis	3.0	3.0	2.0	0.0	0.0	0.0	0.0	8.0
Rochester	2.0	2.0	0.0	1.0	0.0	0.0	3.0	8.0

City	Residential energy code (4 pts)	Commercial energy code (4 pts)	Advocacy (4 pts)*	Renewable readiness (2 pts)	EV readiness (2 pts)	Low-energy-use requirement (1 pt)	Electrification (3 pts)	Total (16 pts)
Grand Rapids	1.0	1.0	4.0	1.0	0.0	0.5	0.0	7.5
Philadelphia	3.0	3.0	0.0	1.0	0.0	0.5	0.0	7.5
St. Louis	0.0	3.0	0.0	2.0	2.0	0.5	0.0	7.5
New Orleans	1.5	2.0	2.0	0.0	1.0	0.5	0.0	7.0
Atlanta	1.0	2.0	0.0	1.0	2.0	0.5	0.0	6.5
Las Vegas	3.0	2.0	0.0	1.0	0.0	0.5	0.0	6.5
Tucson	1.0	3.0	0.0	2.0	0.0	0.5	0.0	6.5
Dallas	1.0	2.0	0.0	2.0	0.0	1.0	0.0	6.0
Hartford	2.0	2.0	0.0	2.0	0.0	0.0	0.0	6.0
Milwaukee	0.0	1.0	4.0	1.0	0.0	0.0	0.0	6.0
Saint Paul	1.5	1.0	2.0	1.0	0.0	0.5	0.0	6.0
Springfield	1.5	1.5	0.0	2.0	1.0	0.0	0.0	6.0
Baltimore	3.0	2.0	0.0	0.0	0.0	0.5	0.0	5.5
Nashville	2.0	2.0	0.0	1.0	0.0	0.5	0.0	5.5
Aurora	3.0	1.0	0.0	1.0	0.0	0.5	0.0	5.5
Houston	1.0	2.0	0.0	2.0	0.0	0.5	0.0	5.5
Des Moines	3.0	2.0	0.0	0.0	0.0	0.0	0.0	5.0
Pittsburgh	1.0	1.5	2.0	0.0	0.0	0.5	0.0	5.0
Charlotte	0.0	0.5	2.0	0.0	2.0	0.5	0.0	5.0
Albuquerque	2.0	1.0	0.0	1.0	0.0	0.5	0.0	4.5
Honolulu	0.0	0.0	0.0	2.0	2.0	0.5	0.0	4.5
Phoenix	1.0	3.0	0.0	0.0	0.0	0.5	0.0	4.5
Richmond	0.5	1.0	2.0	1.0	0.0	0.0	0.0	4.5
Madison	0.0	1.0	0.0	1.0	2.0	0.5	0.0	4.5
Providence	2.0	1.0	0.0	1.0	0.0	0.5	0.0	4.5
Chattanooga	2.0	2.0	0.0	0.0	0.0	0.0	0.0	4.0
Mesa	1.0	3.0	0.0	0.0	0.0	0.0	0.0	4.0
Reno	2.0	2.0	0.0	0.0	0.0	0.0	0.0	4.0
Bridgeport	2.0	2.0	0.0	0.0	0.0	0.0	0.0	4.0
New Haven	2.0	2.0	0.0	0.0	0.0	0.0	0.0	4.0

City	Residential energy code (4 pts)	Commercial energy code (4 pts)	Advocacy (4 pts)*	Renewable readiness (2 pts)	EV readiness (2 pts)	Low-energy-use requirement (1 pt)	Electrification (3 pts)	Total (16 pts)
Salt Lake City	0.0	2.0	0.0	0.0	1.0	0.5	0.0	3.5
Cleveland	0.5	0.5	2.0	0.0	0.0	0.5	0.0	3.5
Columbus	0.5	0.5	0.0	1.0	1.0	0.5	0.0	3.5
St. Petersburg	0.0	1.0	2.0	0.0	0.0	0.5	0.0	3.5
Orlando	0.0	1.0	0.0	1.0	1.0	0.5	0.0	3.5
Lansing	1.0	1.0	0.0	1.0	0.0	0.0	0.0	3.0
Cincinnati	0.5	0.5	2.0	0.0	0.0	0.0	0.0	3.0
Louisville	0.0	0.5	2.0	0.0	0.0	0.0	0.0	2.5
Knoxville	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
Detroit	1.0	1.0	0.0	0.0	0.0	0.0	0.0	2.0
Charleston	0.0	0.0	2.0	0.0	0.0	0.0	0.0	2.0
Durham	0.0	0.5	0.0	1.0	0.0	0.5	0.0	2.0
Indianapolis	0.5	0.0	0.0	1.0	0.0	0.5	0.0	2.0
Fayetteville	0.0	0.0	0.0	1.0	0.0	0.5	0.0	1.5
Tampa	0.0	1.0	0.0	0.0	0.0	0.5	0.0	1.5
Akron	0.5	0.5	0.0	0.0	0.0	0.0	0.0	1.0
Raleigh	0.0	0.5	0.0	0.0	0.0	0.5	0.0	1.0
Toledo	0.5	0.5	0.0	0.0	0.0	0.0	0.0	1.0

***Point available only to cities without the authority to adopt building energy codes. Those cities without authority to adopt codes can receive up to 4 points for the residential energy code and commercial energy code metrics.**

Table E6. Scores for building code compliance and enforcement

City	Full-time staff (1 pt)	Compliance strategies (2 pts)	Upfront support (1 pt)	Total (4 pts)
Atlanta	1.0	2.0	1.0	4.0
Austin	1.0	2.0	1.0	4.0
Boise	1.0	2.0	1.0	4.0
Chula Vista	1.0	2.0	1.0	4.0
Dallas	1.0	2.0	1.0	4.0
Denver	1.0	2.0	1.0	4.0
Houston	1.0	2.0	1.0	4.0
Long Beach	1.0	2.0	1.0	4.0
Los Angeles	1.0	2.0	1.0	4.0
Nashville	1.0	2.0	1.0	4.0
San Antonio	1.0	2.0	1.0	4.0
Kansas City	1.0	2.0	1.0	4.0
Las Vegas	1.0	2.0	1.0	4.0
Miami	1.0	2.0	1.0	4.0
Orlando	1.0	2.0	1.0	4.0
Seattle	1.0	2.0	1.0	4.0
St. Louis	1.0	2.0	1.0	4.0
Washington, DC	1.0	2.0	1.0	4.0
Portland	1.0	2.0	1.0	4.0
Albuquerque	0.0	2.0	1.0	3.0
Aurora	1.0	1.0	1.0	3.0
Chicago	0.0	2.0	1.0	3.0
Columbus	1.0	1.0	1.0	3.0
Minneapolis	0.0	2.0	1.0	3.0
New Orleans	0.0	2.0	1.0	3.0
New York	0.0	2.0	1.0	3.0
Oakland	1.0	1.0	1.0	3.0
Oxnard	0.0	2.0	1.0	3.0
Phoenix	0.0	2.0	1.0	3.0

City	Full-time staff (1 pt)	Compliance strategies (2 pts)	Upfront support (1 pt)	Total (4 pts)
Providence	1.0	2.0	0.0	3.0
Saint Paul	0.0	2.0	1.0	3.0
San Diego	0.0	2.0	1.0	3.0
San Francisco	0.0	2.0	1.0	3.0
San José	0.0	2.0	1.0	3.0
Spokane	0.0	2.0	1.0	3.0
Tucson	0.0	2.0	1.0	3.0
Philadelphia	0.0	2.0	1.0	3.0
Charleston	0.0	1.0	1.0	2.0
Hartford	0.0	1.0	1.0	2.0
Louisville	0.0	1.0	1.0	2.0
Boston	0.0	2.0	0.0	2.0
Charlotte	0.0	1.0	1.0	2.0
Chattanooga	0.0	1.0	1.0	2.0
Cincinnati	0.0	1.0	1.0	2.0
Detroit	0.0	1.0	1.0	2.0
Fresno	0.0	2.0	0.0	2.0
Grand Rapids	0.0	1.0	1.0	2.0
Honolulu	0.0	1.0	1.0	2.0
Knoxville	0.0	1.0	1.0	2.0
Lansing	0.0	1.0	1.0	2.0
Mesa	0.0	2.0	0.0	2.0
New Haven	0.0	2.0	0.0	2.0
Richmond	0.0	1.0	1.0	2.0
Riverside	0.0	2.0	0.0	2.0
Rochester	0.0	2.0	0.0	2.0
Sacramento	1.0	1.0	0.0	2.0
Springfield	0.0	2.0	0.0	2.0
St. Petersburg	0.0	2.0	0.0	2.0
Pittsburgh	0.0	2.0	0.0	2.0
Reno	1.0	0.0	1.0	2.0

City	Full-time staff (1 pt)	Compliance strategies (2 pts)	Upfront support (1 pt)	Total (4 pts)
Salt Lake City	0.0	1.0	0.0	1.0
Akron	0.0	1.0	0.0	1.0
Baltimore	0.0	1.0	0.0	1.0
Des Moines	0.0	1.0	0.0	1.0
Durham	0.0	1.0	0.0	1.0
Fayetteville	0.0	1.0	0.0	1.0
Madison	0.0	1.0	0.0	1.0
Memphis	0.0	1.0	0.0	1.0
Milwaukee	0.0	1.0	0.0	1.0
Raleigh	0.0	1.0	0.0	1.0
Toledo	0.0	1.0	0.0	1.0
Bridgeport	0.0	0.0	0.0	0.0
Cleveland	0.0	0.0	0.0	0.0
Indianapolis	0.0	0.0	0.0	0.0
Tampa	0.0	0.0	0.0	0.0

Table E7. Scores for policies targeting existing buildings

City	Points (max 50 pts)	Policy/Program	Details and points attributed
Denver	41.0	Green Building Ordinance	Residential crosscutting requirements (2); commercial crosscutting requirements (2)
		Denver Benchmarking Ordinance	Residential benchmarking requirements (2); commercial benchmarking requirements (2) Compliance bonus (1)
		Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2)
		Low-income financial and nonfinancial incentives	1 incentive offered (1)* Equitable program outcomes (1)*
		Energize Denver Ordinance/Colorado HB 21-1286	Commercial rental energy disclosure requirements (2) Commercial retrofit requirement (4)

City	Points (max 50 pts)	Policy/Program	Details and points attributed
			Residential building performance standard (4); commercial building performance standard (4)
			Residential other requirement (2); commercial other requirement (2)
			Affordable housing building performance standard (4); underserved commercial building performance standards (4)*
			Residential rental energy disclosure requirements (2)*
New York	35.0	Local Law 97	Residential building performance standard (4); commercial building performance standard (4)
		Local Law 87	Residential retrocommissioning requirements (2); commercial retrocommissioning requirements (2)
			Residential audit requirements (1); commercial audit requirements (1)
		Local Law 84 and Local Law 133	Residential benchmarking requirements (2); commercial benchmarking requirements (2)
			Compliance bonus (1)
		Local Law 88	Residential retrofit requirements (4); commercial retrofit requirements (4)
		Local Law 33	Residential other requirements (2); commercial other requirements (2)
		Mayor's Carbon Challenge	Voluntary programs (1)
		Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2)
		Low-income financial and nonfinancial incentives	1 incentive offered (1)*
Chicago	24.0	Chicago Energy Use Benchmarking Ordinance	Multifamily benchmarking requirements (2); commercial benchmarking requirements (2)
			Compliance bonus (1)
		Municipal Code of Chicago Chapter 5-16	Single-family benchmarking requirements (2)
			Single-family disclosure requirement (1)
			Commercial rental energy disclosure requirements (2); residential rental energy disclosure requirements (2)*

City	Points (max 50 pts)	Policy/Program	Details and points attributed
		Energy Labelling Policy	Residential other requirements (2); commercial other requirements (2)
		Retrofit Chicago	Voluntary programs (1)
		Affordable Requirements Ordinance	Affordability requirements in incentives (2)*
		Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2) Tracking program outcomes (1)*
		Low-income financial and nonfinancial incentives	2 incentives offered (2)* 1 electrification incentive offered (1)*
Washington, DC	24.0	Clean Energy Omnibus Act of 2018	Residential building performance standard (4); commercial building performance standard (4) Affordable housing sector building performance standards and compliance support (4)* Residential benchmarking requirements (2); commercial benchmarking requirements (2) Compliance bonus (1)
		Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2)
		Affordable Housing Retrofit Accelerator	Affordability requirements in incentives (2)*
		Reduce Energy Use DC	Voluntary programs (1)
		Low-income financial and nonfinancial incentives	1 incentive offered (1)* 1 electrification incentive offered (1)*
Aurora	21.0	Colorado HB 21-1286	Commercial benchmarking requirements (2); residential benchmarking requirements (2) Commercial rental energy disclosure requirements (2) Residential building performance standard (4); commercial building performance standard (4) Residential other requirement (2); commercial other requirement (2)

City	Points (max 50 pts)	Policy/Program	Details and points attributed
			Residential rental energy disclosure requirements (2)*
		Financial and nonfinancial incentives	1 energy efficiency incentive offered (1)
Minneapolis	21.0	Building Energy Benchmarking and Transparency Ordinance	Residential benchmarking requirements (2); commercial benchmarking requirements (2) Residential crosscutting requirements (2); commercial crosscutting requirements (2)
		Time-of-Sale Energy Disclosure	Single-family disclosure requirement (1) Residential audit requirements (1) Compliance bonus (1)
		Time-of-Rent Energy Use Disclosure	Residential rental energy disclosure requirements (2)*
		Low-Performing Commercial Building Audit Program	Commercial audit requirements (1)
		Affordable 4D Program	Affordability requirements in incentives (2)*
		Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2)
		Low-income financial and nonfinancial incentives	2+ incentives offered (2)*
Seattle	19.0	State of Washington Clean Buildings for Washington Act	Commercial building performance standard (4)
		Municipal Code 22.920	Residential benchmarking requirements (2); commercial benchmarking requirements (2) Compliance bonus (1)
		Seattle Tune-Up Policy	Commercial retrocommissioning requirements (2) Commercial audit requirements (1)
		Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2)

City	Points (max 50 pts)	Policy/Program	Details and points attributed
		Low-income financial and nonfinancial incentives	2 incentives offered (2)* 1 electrification incentive offered (1)*
		2030 District	Voluntary programs (1)
Chula Vista	18.0	Existing Home Energy Efficiency Ordinance	Residential retrofit requirements (4)
		Building Energy Saving Ordinance	Commercial building performance standard (4) Residential benchmarking requirements (2); commercial benchmarking requirements (2) Residential crosscutting requirements (2); commercial crosscutting requirements (2)
		Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2)
St. Louis	18.0	Board Bill 219	Residential building performance standard (4); commercial building performance standard (4) Affordable housing sector building performance standards and compliance support (4)*
		Building Energy Awareness Bill	Residential benchmarking requirements (2); commercial benchmarking requirements (2)
		Financial and nonfinancial incentives	1 energy efficiency incentive offered (1)
		Low-income financial and nonfinancial incentives	1 incentive offered (1)*
Boston	17.0	Building Energy Reporting and Disclosure Ordinance	Commercial building performance standard (4) Residential benchmarking requirements (2); commercial benchmarking requirements (2) Residential crosscutting requirements (2); commercial crosscutting requirements (2)
		Boston Energy Positive Program	Voluntary programs (1)

City	Points (max 50 pts)	Policy/Program	Details and points attributed
		Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2)
		Low-income financial and nonfinancial incentives	2 incentives offered (2)*
San Francisco	17.0	Chapter 20 of the San Francisco Environment Code	Residential benchmarking requirements (2); commercial benchmarking requirements (2) Commercial crosscutting requirements (2)
		Residential Energy Conservation Ordinance	Residential retrofit requirements (4)
		Renewable Energy for Commercial Buildings Ordinance	Commercial other requirement (2)
		Strategic Energy Assessment	Voluntary programs (1)
		Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2)
		Low-income financial and nonfinancial incentives	1 incentive offered (1)* 1 electrification incentive offered (1)*
Austin	15.0	Energy Conservation Audit and Disclosure Ordinance	Residential benchmarking requirements (2); commercial benchmarking requirements (2) Single-family disclosure requirement (2) Residential rental energy disclosure requirements (2)* Residential other requirements (2) Residential audit requirements (1)
		Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2)
		Low-income financial and nonfinancial incentives	2+ incentives offered (2)*

City	Points (max 50 pts)	Policy/Program	Details and points attributed
Orlando	15.0	Building Energy & Water Efficiency Strategy	Residential benchmarking requirements (2); commercial benchmarking requirements (2) Residential crosscutting requirements (2); commercial crosscutting requirements (2) Voluntary programs (1)
		Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2) Tracking program outcomes (1)*
		Low-income financial and nonfinancial incentives	2+ incentives offered (2)*
		Better Buildings Challenge	Voluntary programs (1)
Los Angeles	14.0	Existing Building Energy & Water Efficiency Ordinance	Residential retrocommissioning requirements (2); commercial retrocommissioning requirements (2) Residential audit requirements (1); commercial audit requirements (1)
		State of California AB 802	Residential benchmarking requirements (2); commercial benchmarking requirements (2)
		Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2)
		Low-income financial and nonfinancial incentives	2+ incentives offered (2)*
San José	14.0	Energy and Water Building Performance Ordinance	Residential benchmarking requirements (2); commercial benchmarking requirements (2) Residential crosscutting requirements (2); commercial crosscutting requirements (2)
		Building Performance Leaders	Voluntary programs (1)
		Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2) Tracking program outcomes (1)*
		Low-income financial and nonfinancial incentives	2+ incentives offered (2)*

City	Points (max 50 pts)	Policy/Program	Details and points attributed
Sacramento	14.0	State of California AB 802	Residential benchmarking requirements (2); commercial benchmarking requirements (2)
		Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2)
		Existing Building Electrification Ordinance	Residential retrofit requirements (4); commercial retrofit requirements (4)
Portland	13.0	Oregon Energy Performance Standard (House Bill 3409)	Commercial building performance standard (4)
		Commercial Building Energy Performance Reporting Ordinance	Commercial benchmarking requirements (2) Compliance bonus (1)
		Home Energy Score Policy	Single-family disclosure requirement (1) Residential audit requirement (1)
		Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2) Tracking program outcomes (1)*
		Low-income financial and nonfinancial incentives	1 incentive offered (1)*
Atlanta	11.0	Commercial Buildings Energy Efficiency Ordinance	Residential benchmarking requirements (2); commercial benchmarking requirements (2) Residential audit requirements (1); commercial audit requirements (1)
		Better Buildings Challenge	Voluntary programs (1)
		Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2)
		Low-income financial and nonfinancial incentives	2+ incentives offered (2)*
Miami	11.0	BE305	Residential benchmarking requirements (2); commercial benchmarking requirements (2) Voluntary programs (1)

City	Points (max 50 pts)	Policy/Program	Details and points attributed
		Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2)
		Low-income financial and nonfinancial incentives	2+ incentives offered (2)*
		Keep Safe Miami	Affordability requirements in incentives (2)*
Baltimore	10.0	Maryland's Building Energy Performance Standards	Commercial building performance standard (4)
		Baltimore Energy Challenge	Voluntary programs (1)
		Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2)
		Low-income financial and nonfinancial incentives	2+ incentives offered (2)* 1 electrification incentive offered (1)*
Honolulu	10.0	Ordinance 22-17	Residential benchmarking requirements (2); commercial benchmarking requirements (2)
		Financial and nonfinancial incentives	1 energy efficiency incentive offered (1)
		Low-income financial and nonfinancial incentives	2+ incentives offered (2)*
		Hawaii 508D-10.5	Single-family energy-use disclosure requirement (1) Residential other requirement (2)
Reno	10.0	Energy and Water Efficiency Ordinance	Residential benchmarking requirements (2); commercial benchmarking requirements (2) Residential crosscutting requirements (2); commercial crosscutting requirements (2)
		ReEnergize Reno	Voluntary programs (1)
		Financial and nonfinancial incentives	1 energy efficiency incentive offered (1)

City	Points (max 50 pts)	Policy/Program	Details and points attributed
Philadelphia	9.0	Bill No. 120428	Residential benchmarking requirements (2); commercial benchmarking requirements (2)
		Building Energy Performance Standards	Commercial retrocommissioning requirements (2)
		2030 District	Voluntary programs (1)
		Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2)
		Low-income financial and nonfinancial incentives	1 incentive offered (1)*
Madison	9.0	Buildings Energy Savings Program (BESP)	Commercial benchmarking requirements (2) Commercial retrocommissioning requirements (2)
		Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2) Tracking program outcomes (1)*
		Low-income financial and nonfinancial incentives	2+ incentives offered (2)*
Oakland	9.0	State of California AB 802	Residential benchmarking requirements (2); commercial benchmarking requirements (2)
		Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2)
		Low-income financial and nonfinancial incentives	2+ incentives offered (2)* 1 electrification incentive offered (1)*
Salt Lake City	8.0	Energy Benchmarking & Transparency Ordinance	Residential benchmarking requirements (2); commercial benchmarking requirements (2) Residential audit requirements (1); commercial audit requirements (1)
		Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2)

City	Points (max 50 pts)	Policy/Program	Details and points attributed
Spokane	8.0	State of Washington Clean Buildings for Washington Act	Commercial building performance standard (4)
		Washington State Energy Code	Residential benchmarking requirements (2); commercial benchmarking requirements (2)
Kansas City	7.0	Energy Empowerment Ordinance	Residential benchmarking requirements (2); commercial benchmarking requirements (2)
		Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2)
		Voluntary Benchmarking	Voluntary programs (1)
Riverside	7.0	State of California AB 802	Residential benchmarking requirements (2); commercial benchmarking requirements (2)
		Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2)
		Low-income financial and nonfinancial incentives	1 incentive offered (1)*
Fresno	6.0	State of California AB 802	Residential benchmarking requirements (2); commercial benchmarking requirements (2)
		Financial and nonfinancial incentives	1 energy efficiency incentive offered (1)
		Low-income financial and nonfinancial incentives	1 incentive offered (1)*
Milwaukee	6.0	Better Buildings Challenge	Voluntary programs (2)
		Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2)
		Low-income financial and nonfinancial incentives	2+ incentives offered (2)*

City	Points (max 50 pts)	Policy/Program	Details and points attributed
Nashville	6.0	Sustainability Challenge	Voluntary programs (1)
		Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2) Tracking program outcomes (1)*
		Low-income financial and nonfinancial incentives	2+ incentives offered (2)*
Saint Paul	6.0	Benchmarking Ordinance	Residential benchmarking requirements (2); commercial benchmarking requirements (2)
		Energize Saint Paul	Voluntary programs (1)
		Financial and nonfinancial incentives	1 energy efficiency incentive offered (1)
San Diego	6.0	Building Energy Benchmarking Ordinance	Residential benchmarking requirements (2); commercial benchmarking requirements (2)
		Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2)
Albuquerque	5.0	Mayor's Energy Challenge	Voluntary programs (1)
		Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2)
		Low-income financial and nonfinancial incentives	1 incentive offered (1)*
Charlotte	5.0	Power Down the Crown	Voluntary programs (1)
		Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2)
		Affordability covenant	Affordability requirements in incentives (2)*
Cincinnati	5.0	2030 District	Voluntary programs (1)

City	Points (max 50 pts)	Policy/Program	Details and points attributed
		Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2) Tracking program outcomes (1)*
		Low-income financial and nonfinancial incentives	1 incentive offered (1)*
Columbus	5.0	Energy and Water Benchmarking and Transparency Ordinance	Residential benchmarking requirements (2); commercial benchmarking requirements (2)
		Financial and nonfinancial incentives	1 energy efficiency incentive offered (1)
Houston	5.0	Better Buildings Challenge	Voluntary programs (1)
		2022 Decarbonization Policy	Commercial other requirements (2)
		Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2)
Phoenix	5.0	Kilowatt Krackdown	Voluntary programs (2)
		Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2)
		Low-income financial and nonfinancial incentives	1 incentive offered (1)*
Pittsburgh	5.0	Building Benchmarking Ordinance	Commercial benchmarking requirement (2)
		2030 District	Voluntary programs (1)
		Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2)
San Antonio	5.0	Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2) Tracking program outcomes (1)*

City	Points (max 50 pts)	Policy/Program	Details and points attributed
		Low-income financial and nonfinancial incentives	2+ incentives offered (2)*
Dallas	4.0	2030 District	Voluntary programs (1)
		Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2)
		Low-income financial and nonfinancial incentives	1 incentive offered (1)*
Des Moines	4.0	Energy and Water Benchmarking Ordinance	Residential benchmarking requirements (2); commercial benchmarking requirements (2)
Grand Rapids	4.0	2030 District	Voluntary programs (1)
		Financial and nonfinancial incentives	2 energy efficiency incentives offered (2)
		Low-income financial and nonfinancial incentives	1 incentive offered (1)*
Hartford	4.0	Energy Equity Challenge	Voluntary programs (1)
		Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2)
		Low-income financial and nonfinancial incentives	1 incentive offered (1)*
Indianapolis	4.0	Energy Benchmarking and Transparency Ordinance	Residential benchmarking requirements (2); commercial benchmarking requirements (2)
Knoxville	4.0	Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2)
		Low-income financial and nonfinancial incentives	2+ incentives offered (2)*

City	Points (max 50 pts)	Policy/Program	Details and points attributed
Long Beach	4.0	State of California AB 802	Residential benchmarking requirements (2); commercial benchmarking requirements (2)
New Orleans	4.0	Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2)
		Low-income financial and nonfinancial incentives	2+ incentives offered (2)*
Oxnard	4.0	State of California AB 802	Residential benchmarking requirements (2); commercial benchmarking requirements (2)
Cleveland	3.0	2030 District	Voluntary programs (1)
		Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2)
Louisville	3.0	Kilowatt Crackdown	Voluntary programs (1)
		Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2)
Memphis	3.0	Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2)
		Low-income financial and nonfinancial incentives	1 incentive offered (1)*
Rochester	3.0	Better Buildings Challenge	Voluntary programs (1)
		Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2)
St. Petersburg	3.0	Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2)
		Building energy benchmarking pilot	Voluntary programs (1)
Lansing	2.0	Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2)

City	Points (max 50 pts)	Policy/Program	Details and points attributed
New Haven	2.0	Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2)
Providence	2.0	RePower PVD	Voluntary programs (1)
		Financial and nonfinancial incentives	1 energy efficiency incentive offered (1)
Tampa	2.0	Financial and nonfinancial incentives	2+ energy efficiency incentives offered (2)
Boise	1.0	Financial and nonfinancial incentives	1 energy efficiency incentive offered (1)
Bridgeport	1.0	Financial and nonfinancial incentives	1 energy efficiency incentive offered (1)
Detroit	1.0	Financial and nonfinancial incentives	1 energy efficiency incentive offered (1)
Las Vegas	1.0	Financial and nonfinancial incentives	1 energy efficiency incentive offered (1)
Raleigh	1.0	Financial and nonfinancial incentives	1 energy efficiency incentive offered (1)
Richmond	1.0	Financial and nonfinancial incentives	1 energy efficiency incentive offered (1)
Toledo	1.0	Financial and nonfinancial incentives	1 energy efficiency incentive offered (1)
Akron	0.0	N/A	N/A
Charleston	0.0	N/A	N/A
Chattanooga	0.0	N/A	N/A
Durham	0.0	N/A	N/A
Fayetteville	0.0	N/A	N/A
Mesa	0.0	N/A	N/A

City	Points (max 50 pts)	Policy/Program	Details and points attributed
Springfield	0.0	N/A	N/A
Tucson	0.0	N/A	N/A

***Policy or program received points under the Equity in Policies Targeting Existing Buildings metric. These policies and programs could collectively receive a maximum of 20 points. All other policies and programs could combine to a maximum of 50 points.**

TRANSPORTATION POLICIES

Table E8. Scores for sustainable transportation strategies

City	Sustainable transportation plan (2 pts)	Codified VMT/GHG target (2 pts)	VMT/GHG stringency (2 pts)	Progress toward VMT/GHG goal (3 pts)	Total (9 pts)
Seattle	2.0	2.0	2.0	3.0	9.0
Austin	2.0	2.0	1.0	3.0	8.0
Portland	2.0	2.0	1.0	3.0	8.0
Cleveland	1.0	2.0	1.0	3.0	7.0
San Diego	2.0	2.0	0.0	3.0	7.0
Spokane	2.0	2.0	2.0	0.0	6.0
Washington, DC	2.0	2.0	2.0	0.0	6.0
Charleston	1.0	2.0	2.0	0.0	5.0
Kansas City	2.0	2.0	1.0	0.0	5.0
Memphis	2.0	2.0	1.0	0.0	5.0
San Antonio	1.0	2.0	2.0	0.0	5.0
Boston	0.5	2.0	2.0	0.0	4.5
Chicago	2.0	2.0	0.0	0.0	4.0
Columbus	1.0	2.0	1.0	0.0	4.0
Indianapolis	1.0	2.0	1.0	0.0	4.0
Long Beach	1.0	2.0	1.0	0.0	4.0
Los Angeles	2.0	2.0	0.0	0.0	4.0
Madison	2.0	2.0	0.0	0.0	4.0
Milwaukee	2.0	2.0	0.0	0.0	4.0
New York	2.0	2.0	0.0	0.0	4.0
Oxnard	2.0	2.0	0.0	0.0	4.0

City	Sustainable transportation plan (2 pts)	Codified VMT/GHG target (2 pts)	VMT/GHG stringency (2 pts)	Progress toward VMT/GHG goal (3 pts)	Total (9 pts)
Pittsburgh	2.0	2.0	0.0	0.0	4.0
Providence	2.0	2.0	0.0	0.0	4.0
Saint Paul	1.0	2.0	1.0	0.0	4.0
San José	2.0	2.0	0.0	0.0	4.0
Fayetteville	0.5	2.0	1.0	0.0	3.5
Atlanta	1.0	2.0	0.0	0.0	3.0
Boise	1.0	2.0	0.0	0.0	3.0
Houston	1.0	2.0	0.0	0.0	3.0
Las Vegas	1.0	2.0	0.0	0.0	3.0
Minneapolis	1.0	2.0	0.0	0.0	3.0
Philadelphia	1.0	2.0	0.0	0.0	3.0
Charlotte	2.0	0.0	0.0	0.0	2.0
Chattanooga	2.0	0.0	0.0	0.0	2.0
Denver	2.0	0.0	0.0	0.0	2.0
Des Moines	2.0	0.0	0.0	0.0	2.0
Mesa	2.0	0.0	0.0	0.0	2.0
Oakland	2.0	0.0	0.0	0.0	2.0
Orlando	2.0	0.0	0.0	0.0	2.0
Phoenix	2.0	0.0	0.0	0.0	2.0
Richmond	2.0	0.0	0.0	0.0	2.0
Sacramento	2.0	0.0	0.0	0.0	2.0
San Francisco	2.0	0.0	0.0	0.0	2.0
Tampa	2.0	0.0	0.0	0.0	2.0
Tucson	2.0	0.0	0.0	0.0	2.0
Aurora	1.0	0.0	0.0	0.0	1.0
Baltimore	1.0	0.0	0.0	0.0	1.0
Bridgeport	1.0	0.0	0.0	0.0	1.0
Chula Vista	1.0	0.0	0.0	0.0	1.0
Cincinnati	1.0	0.0	0.0	0.0	1.0
Dallas	1.0	0.0	0.0	0.0	1.0

City	Sustainable transportation plan (2 pts)	Codified VMT/GHG target (2 pts)	VMT/GHG stringency (2 pts)	Progress toward VMT/GHG goal (3 pts)	Total (9 pts)
Detroit	1.0	0.0	0.0	0.0	1.0
Grand Rapids	1.0	0.0	0.0	0.0	1.0
Honolulu	1.0	0.0	0.0	0.0	1.0
Knoxville	1.0	0.0	0.0	0.0	1.0
Lansing	1.0	0.0	0.0	0.0	1.0
Louisville	1.0	0.0	0.0	0.0	1.0
Nashville	1.0	0.0	0.0	0.0	1.0
New Haven	1.0	0.0	0.0	0.0	1.0
New Orleans	1.0	0.0	0.0	0.0	1.0
Raleigh	1.0	0.0	0.0	0.0	1.0
Reno	1.0	0.0	0.0	0.0	1.0
Riverside	1.0	0.0	0.0	0.0	1.0
St. Petersburg	1.0	0.0	0.0	0.0	1.0
Hartford	0.5	0.0	0.0	0.0	0.5
Miami	0.5	0.0	0.0	0.0	0.5
Rochester	0.5	0.0	0.0	0.0	0.5
Salt Lake City	0.5	0.0	0.0	0.0	0.5
Springfield	0.5	0.0	0.0	0.0	0.5
St. Louis	0.5	0.0	0.0	0.0	0.5
Akron	0.0	0.0	0.0	0.0	0.0
Albuquerque	0.0	0.0	0.0	0.0	0.0
Durham	0.0	0.0	0.0	0.0	0.0
Fresno	0.0	0.0	0.0	0.0	0.0
Toledo	0.0	0.0	0.0	0.0	0.0

Table E9. Scores for location efficiency

City	Zoning codes (4 pts)	Parking requirements (4 pts)	Incentives and disclosure (4 pts)	Affordable TOD (5 pts)	Total (17 pts)
San Francisco	4.0	4.0	1.0	5.0	14.0
Portland	4.0	1.0	0.0	5.0	10.0
Charlotte	4.0	2.0	1.0	2.5	9.5
Minneapolis	4.0	2.0	1.0	2.5	9.5
Raleigh	3.0	4.0	0.0	2.5	9.5
San Diego	4.0	2.0	1.0	2.5	9.5
Atlanta	1.0	2.0	1.0	5.0	9.0
Oakland	4.0	2.0	0.0	2.5	8.5
Riverside	4.0	2.0	0.0	2.5	8.5
Saint Paul	2.0	4.0	0.0	2.5	8.5
New Haven	1.0	2.0	0.0	5.0	8.0
San José	4.0	4.0	0.0	0.0	8.0
Fresno	4.0	0.0	1.0	2.5	7.5
Hartford	0.0	4.0	1.0	2.5	7.5
Los Angeles	4.0	0.0	1.0	2.5	7.5
Long Beach	4.0	0.0	3.0	0.0	7.0
Albuquerque	2.0	0.0	2.0	2.5	6.5
Chicago	0.0	0.0	4.0	2.5	6.5
Chula Vista	4.0	0.0	0.0	2.5	6.5
Madison	2.0	2.0	0.0	2.5	6.5
Nashville	0.0	2.0	2.0	2.5	6.5
Seattle	0.0	2.0	2.0	2.5	6.5
Spokane	4.0	0.0	0.0	2.5	6.5
Boise	0.0	0.0	1.0	5.0	6.0
Lansing	4.0	2.0	0.0	0.0	6.0
Sacramento	4.0	2.0	0.0	0.0	6.0
Honolulu	0.0	2.0	1.0	2.5	5.5
Miami	0.0	1.0	2.0	2.5	5.5
St. Louis	0.0	2.0	1.0	2.5	5.5
Austin	0.0	2.0	0.0	2.5	4.5
Detroit	0.0	2.0	0.0	2.5	4.5

City	Zoning codes (4 pts)	Parking requirements (4 pts)	Incentives and disclosure (4 pts)	Affordable TOD (5 pts)	Total (17 pts)
Knoxville	0.0	2.0	0.0	2.5	4.5
Louisville	0.0	2.0	0.0	2.5	4.5
Philadelphia	0.0	2.0	0.0	2.5	4.5
Pittsburgh	0.0	2.0	0.0	2.5	4.5
Richmond	0.0	4.0	0.5	0.0	4.5
Washington, DC	0.0	2.0	0.0	2.5	4.5
Baltimore	2.0	2.0	0.0	0.0	4.0
Bridgeport	0.0	4.0	0.0	0.0	4.0
Grand Rapids	0.0	2.0	2.0	0.0	4.0
Indianapolis	2.0	2.0	0.0	0.0	4.0
Oxnard	4.0	0.0	0.0	0.0	4.0
Salt Lake City	0.0	0.0	1.0	2.5	3.5
Denver	1.0	2.0	0.0	0.0	3.0
Houston	0.0	2.0	1.0	0.0	3.0
New York	0.0	3.0	0.0	0.0	3.0
St. Petersburg	3.0	0.0	0.0	0.0	3.0
Toledo	0.0	2.0	1.0	0.0	3.0
Tucson	2.0	0.0	1.0	0.0	3.0
Columbus	0.0	2.0	0.5	0.0	2.5
Kansas City	0.0	0.0	0.0	2.5	2.5
Las Vegas	0.0	0.0	0.0	2.5	2.5
Providence	0.0	2.0	0.5	0.0	2.5
Tampa	0.0	0.0	0.0	2.5	2.5
Chattanooga	0.0	2.0	0.0	0.0	2.0
Cincinnati	0.0	2.0	0.0	0.0	2.0
Cleveland	0.0	2.0	0.0	0.0	2.0
Des Moines	0.0	2.0	0.0	0.0	2.0
Durham	0.0	2.0	0.0	0.0	2.0
Memphis	0.0	2.0	0.0	0.0	2.0
Mesa	0.0	0.0	2.0	0.0	2.0
Milwaukee	0.0	2.0	0.0	0.0	2.0

City	Zoning codes (4 pts)	Parking requirements (4 pts)	Incentives and disclosure (4 pts)	Affordable TOD (5 pts)	Total (17 pts)
New Orleans	0.0	2.0	0.0	0.0	2.0
Orlando	0.0	0.0	2.0	0.0	2.0
Rochester	0.0	2.0	0.0	0.0	2.0
Phoenix	0.0	0.0	1.0	0.0	1.0
Akron	0.0	0.0	0.0	0.0	0.0
Aurora	0.0	0.0	0.0	0.0	0.0
Boston	0.0	0.0	0.0	0.0	0.0
Charleston	0.0	0.0	0.0	0.0	0.0
Dallas	0.0	0.0	0.0	0.0	0.0
Fayetteville	0.0	0.0	0.0	0.0	0.0
Reno	0.0	0.0	0.0	0.0	0.0
San Antonio	0.0	0.0	0.0	0.0	0.0
Springfield	0.0	0.0	0.0	0.0	0.0

Table E10. Scores for mode shift

City	Mode shift targets (2 pts)	Progress toward mode shift (3 pts)	Bikeability (4 pts)	Subsidized access to transportation (5 pts)	Total (14 pts)
New York	2.0	3.0	4.0	2.0	11.0
Portland	1.0	3.0	4.0	3.0	11.0
Denver	2.0	0.0	4.0	4.0	10.0
Minneapolis	2.0	3.0	4.0	1.0	10.0
Saint Paul	2.0	0.0	4.0	2.0	8.0
San Francisco	2.0	0.0	4.0	2.0	8.0
Boston	1.0	3.0	0.0	3.0	7.0
Las Vegas	2.0	3.0	0.0	2.0	7.0
Seattle	2.0	0.0	4.0	1.0	7.0
Fayetteville	1.0	0.0	4.0	1.0	6.0

City	Mode shift targets (2 pts)	Progress toward mode shift (3 pts)	Bikeability (4 pts)	Subsidized access to transportation (5 pts)	Total (14 pts)
Madison	0.0	0.0	4.0	2.0	6.0
Oakland	2.0	0.0	2.0	2.0	6.0
Salt Lake City	0.0	0.0	4.0	2.0	6.0
San José	1.0	3.0	0.0	2.0	6.0
Washington, DC	1.0	0.0	4.0	1.0	6.0
Charlotte	2.0	0.0	0.0	3.0	5.0
Los Angeles	2.0	0.0	0.0	3.0	5.0
Milwaukee	0.0	0.0	4.0	1.0	5.0
Philadelphia	0.0	0.0	4.0	1.0	5.0
Pittsburgh	1.0	3.0	0.0	1.0	5.0
Atlanta	2.0	0.0	0.0	2.0	4.0
Austin	2.0	0.0	0.0	2.0	4.0
Baltimore	0.0	0.0	2.0	2.0	4.0
Detroit	0.0	0.0	4.0	0.0	4.0
Long Beach	1.0	0.0	2.0	1.0	4.0
Memphis	1.0	3.0	0.0	0.0	4.0
Sacramento	2.0	0.0	2.0	0.0	4.0
Springfield	1.0	3.0	0.0	0.0	4.0
Tucson	0.0	0.0	2.0	2.0	4.0
Aurora	0.0	0.0	2.0	1.0	3.0
Chicago	2.0	0.0	0.0	1.0	3.0
Dallas	2.0	0.0	0.0	1.0	3.0
Des Moines	0.0	0.0	2.0	1.0	3.0
New Haven	0.0	3.0	0.0	0.0	3.0
New Orleans	2.0	0.0	0.0	1.0	3.0
Phoenix	2.0	0.0	0.0	1.0	3.0
San Diego	2.0	0.0	0.0	1.0	3.0
Spokane	0.0	0.0	2.0	1.0	3.0
St. Louis	0.0	0.0	2.0	1.0	3.0
Akron	0.0	0.0	0.0	2.0	2.0

City	Mode shift targets (2 pts)	Progress toward mode shift (3 pts)	Bikeability (4 pts)	Subsidized access to transportation (5 pts)	Total (14 pts)
Albuquerque	0.0	0.0	0.0	2.0	2.0
Charleston	0.0	0.0	0.0	2.0	2.0
Durham	0.0	0.0	0.0	2.0	2.0
Honolulu	0.0	0.0	0.0	2.0	2.0
Kansas City	0.0	0.0	0.0	2.0	2.0
Lansing	0.0	0.0	2.0	0.0	2.0
Nashville	0.0	0.0	0.0	2.0	2.0
Oxnard	0.0	0.0	2.0	0.0	2.0
Boise	0.0	0.0	0.0	1.0	1.0
Chula Vista	1.0	0.0	0.0	0.0	1.0
Cincinnati	0.0	0.0	0.0	1.0	1.0
Cleveland	1.0	0.0	0.0	0.0	1.0
Columbus	0.0	0.0	0.0	1.0	1.0
Grand Rapids	0.0	0.0	0.0	1.0	1.0
Hartford	0.0	0.0	0.0	1.0	1.0
Louisville	0.0	0.0	0.0	1.0	1.0
Miami	0.0	0.0	0.0	1.0	1.0
Providence	0.0	0.0	0.0	1.0	1.0
Raleigh	0.0	0.0	0.0	1.0	1.0
Reno	0.0	0.0	0.0	1.0	1.0
Riverside	0.0	0.0	0.0	1.0	1.0
Rochester	0.0	0.0	0.0	1.0	1.0
St. Petersburg	0.0	0.0	0.0	1.0	1.0
Tampa	0.0	0.0	0.0	1.0	1.0
Toledo	0.0	0.0	0.0	1.0	1.0
Bridgeport	0.0	0.0	0.0	0.0	0.0
Chattanooga	0.0	0.0	0.0	0.0	0.0
Fresno	0.0	0.0	0.0	0.0	0.0
Houston	0.0	0.0	0.0	0.0	0.0
Indianapolis	0.0	0.0	0.0	0.0	0.0

City	Mode shift targets (2 pts)	Progress toward mode shift (3 pts)	Bikeability (4 pts)	Subsidized access to transportation (5 pts)	Total (14 pts)
Knoxville	0.0	0.0	0.0	0.0	0.0
Mesa	0.0	0.0	0.0	0.0	0.0
Orlando	0.0	0.0	0.0	0.0	0.0
Richmond	0.0	0.0	0.0	0.0	0.0
San Antonio	0.0	0.0	0.0	0.0	0.0

Table E11. Scores for public transit

City	Transit funding (4 pts)	Transit performance (4 pts)	Low-income access to high-quality transit (5 pts)	Total (13 pts)
San Francisco	4.0	4.0	5.0	13.0
Chicago	3.0	4.0	5.0	12.0
New York	2.0	4.0	5.0	11.0
Oakland	4.0	3.0	4.0	11.0
Portland	3.0	3.0	5.0	11.0
Seattle	4.0	3.0	4.0	11.0
Boston	2.0	4.0	4.0	10.0
Cleveland	2.0	3.0	5.0	10.0
Philadelphia	2.0	4.0	4.0	10.0
Washington, DC	3.0	4.0	2.0	9.0
Honolulu	3.0	2.0	2.0	7.0
Minneapolis	2.0	3.0	2.0	7.0
Atlanta	3.0	3.0	0.0	6.0
Los Angeles	2.0	2.0	1.0	5.0
Miami	2.0	3.0	0.0	5.0
Pittsburgh	2.0	3.0	0.0	5.0
Salt Lake City	2.0	3.0	0.0	5.0
St. Louis	2.0	3.0	0.0	5.0
Baltimore	0.0	3.0	1.0	4.0

City	Transit funding (4 pts)	Transit performance (4 pts)	Low-income access to high-quality transit (5 pts)	Total (13 pts)
Denver	2.0	2.0	0.0	4.0
Long Beach	1.0	3.0	0.0	4.0
New Orleans	2.0	2.0	0.0	4.0
San José	2.0	2.0	0.0	4.0
Austin	2.0	1.0	0.0	3.0
Charlotte	2.0	1.0	0.0	3.0
Cincinnati	2.0	1.0	0.0	3.0
Columbus	2.0	1.0	0.0	3.0
Dallas	2.0	1.0	0.0	3.0
Hartford	0.0	3.0	0.0	3.0
Houston	2.0	1.0	0.0	3.0
Lansing	2.0	1.0	0.0	3.0
Madison	2.0	1.0	0.0	3.0
Milwaukee	1.0	2.0	0.0	3.0
Phoenix	2.0	1.0	0.0	3.0
Providence	1.0	2.0	0.0	3.0
Richmond	1.0	2.0	0.0	3.0
Sacramento	2.0	1.0	0.0	3.0
San Antonio	2.0	1.0	0.0	3.0
Spokane	2.0	1.0	0.0	3.0
Springfield	0.0	1.0	2.0	3.0
Akron	1.0	1.0	0.0	2.0
Des Moines	1.0	1.0	0.0	2.0
Kansas City	2.0	0.0	0.0	2.0
Las Vegas	1.0	1.0	0.0	2.0
Louisville	1.0	1.0	0.0	2.0
Nashville	2.0	0.0	0.0	2.0
New Haven	0.0	2.0	0.0	2.0
Saint Paul	0.0	2.0	0.0	2.0
San Diego	1.0	1.0	0.0	2.0
St. Petersburg	1.0	1.0	0.0	2.0

City	Transit funding (4 pts)	Transit performance (4 pts)	Low-income access to high-quality transit (5 pts)	Total (13 pts)
Tucson	1.0	1.0	0.0	2.0
Albuquerque	1.0	0.0	0.0	1.0
Aurora	0.0	1.0	0.0	1.0
Bridgeport	0.0	1.0	0.0	1.0
Chattanooga	1.0	0.0	0.0	1.0
Chula Vista	0.0	1.0	0.0	1.0
Detroit	0.0	1.0	0.0	1.0
Fresno	0.0	1.0	0.0	1.0
Grand Rapids	0.0	1.0	0.0	1.0
Indianapolis	1.0	0.0	0.0	1.0
Knoxville	1.0	0.0	0.0	1.0
Orlando	0.0	1.0	0.0	1.0
Oxnard	0.0	1.0	0.0	1.0
Raleigh	1.0	0.0	0.0	1.0
Reno	1.0	0.0	0.0	1.0
Riverside	0.0	1.0	0.0	1.0
Rochester	0.0	1.0	0.0	1.0
Tampa	0.0	1.0	0.0	1.0
Boise	0.0	0.0	0.0	0.0
Charleston	0.0	0.0	0.0	0.0
Durham	0.0	0.0	0.0	0.0
Fayetteville	0.0	0.0	0.0	0.0
Memphis	0.0	0.0	0.0	0.0
Mesa	0.0	0.0	0.0	0.0
Toledo	0.0	0.0	0.0	0.0

Table E12. Scores for efficient vehicles

City	Vehicle incentives (2 pts)	Charging incentives (2 pts)	EV chargers (3 pts)	EV charger requirements (2 pts)	EV school bus goal (1 pt)	EV transit bus goal (1 pt)	Total (11 pts)
San Francisco	1.0	2.0	3.0	2.0	1.0	1.0	10.0
San José	1.0	2.0	3.0	2.0	0.0	1.0	9.0
Los Angeles	1.0	2.0	1.5	2.0	0.5	1.0	8.0
Riverside	2.0	2.0	1.5	2.0	0.0	0.5	8.0
San Diego	0.0	2.0	3.0	2.0	0.0	1.0	8.0
Seattle	0.0	2.0	3.0	2.0	0.5	0.5	8.0
Oakland	1.0	0.0	3.0	2.0	0.5	1.0	7.5
Salt Lake City	0.0	1.0	3.0	2.0	1.0	0.5	7.5
Orlando	1.0	1.0	3.0	2.0	0.0	0.0	7.0
Sacramento	0.0	1.0	3.0	2.0	0.0	1.0	7.0
Fresno	2.0	0.0	1.5	2.0	0.0	1.0	6.5
Long Beach	2.0	0.0	1.5	2.0	0.0	0.5	6.0
Oxnard	2.0	1.0	0.0	2.0	0.0	1.0	6.0
Rochester	0.0	2.0	3.0	0.0	0.5	0.5	6.0
Austin	0.0	2.0	3.0	0.0	0.5	0.0	5.5
Baltimore	0.0	2.0	3.0	0.0	0.0	0.5	5.5
Miami	0.0	1.0	3.0	0.0	0.5	1.0	5.5
Pittsburgh	1.0	1.0	3.0	0.0	0.0	0.5	5.5
Washington, DC	0.0	1.0	3.0	0.0	0.5	1.0	5.5
Boston	0.0	2.0	3.0	0.0	0.0	0.0	5.0
Denver	1.0	2.0	1.5	0.0	0.0	0.5	5.0
Hartford	0.0	0.0	1.5	2.0	0.5	0.5	4.5
St. Louis	0.0	1.0	1.5	2.0	0.0	0.0	4.5
Atlanta	0.0	1.0	3.0	0.0	0.0	0.0	4.0
Grand Rapids	0.0	1.0	0.0	2.0	0.0	1.0	4.0
Honolulu	0.0	2.0	1.5	0.0	0.0	0.5	4.0
Kansas City	0.0	1.0	3.0	0.0	0.0	0.0	4.0
New York	0.0	0.0	0.0	2.0	1.0	1.0	4.0
Portland	0.0	2.0	1.5	0.0	0.0	0.5	4.0
Providence	0.0	0.0	3.0	0.0	1.0	0.0	4.0

City	Vehicle incentives (2 pts)	Charging incentives (2 pts)	EV chargers (3 pts)	EV charger requirements (2 pts)	EV school bus goal (1 pt)	EV transit bus goal (1 pt)	Total (11 pts)
Spokane	0.0	1.0	0.0	2.0	0.5	0.0	3.5
Springfield	0.0	2.0	1.5	0.0	0.0	0.0	3.5
Charlotte	0.0	1.0	0.0	2.0	0.0	0.0	3.0
Chula Vista	0.0	0.0	0.0	2.0	0.0	1.0	3.0
Cincinnati	0.0	0.0	3.0	0.0	0.0	0.0	3.0
Columbus	0.0	0.0	0.0	2.0	0.0	1.0	3.0
Detroit	2.0	1.0	0.0	0.0	0.0	0.0	3.0
Knoxville	0.0	1.0	1.5	0.0	0.0	0.5	3.0
Madison	0.0	1.0	1.5	0.0	0.0	0.5	3.0
Richmond	0.0	0.0	3.0	0.0	0.0	0.0	3.0
Tucson	0.0	1.0	0.0	2.0	0.0	0.0	3.0
New Haven	0.0	2.0	0.0	0.0	0.0	0.5	2.5
St. Petersburg	0.0	0.0	0.0	2.0	0.0	0.5	2.5
Albuquerque	0.0	2.0	0.0	0.0	0.0	0.0	2.0
Las Vegas	0.0	0.0	1.5	0.0	0.0	0.5	2.0
Minneapolis	0.0	1.0	0.0	0.0	0.0	1.0	2.0
Phoenix	0.0	1.0	0.0	0.0	0.0	1.0	2.0
Raleigh	0.0	2.0	0.0	0.0	0.0	0.0	2.0
Saint Paul	0.0	1.0	0.0	0.0	0.0	1.0	2.0
Chattanooga	0.0	0.0	1.5	0.0	0.0	0.0	1.5
Durham	0.0	1.0	0.0	0.0	0.0	0.5	1.5
Houston	0.0	1.0	0.0	0.0	0.0	0.5	1.5
Nashville	0.0	0.0	1.5	0.0	0.0	0.0	1.5
Philadelphia	0.0	0.0	0.0	0.0	0.5	1.0	1.5
Tampa	0.0	0.0	1.5	0.0	0.0	0.0	1.5
Aurora	1.0	0.0	0.0	0.0	0.0	0.0	1.0
Bridgeport	0.0	1.0	0.0	0.0	0.0	0.0	1.0
Charleston	0.0	0.0	0.0	0.0	0.0	1.0	1.0
Chicago	0.0	0.0	0.0	0.0	0.0	1.0	1.0
Cleveland	0.0	0.0	0.0	0.0	0.0	1.0	1.0
Dallas	0.0	0.0	0.0	0.0	0.5	0.5	1.0

City	Vehicle incentives (2 pts)	Charging incentives (2 pts)	EV chargers (3 pts)	EV charger requirements (2 pts)	EV school bus goal (1 pt)	EV transit bus goal (1 pt)	Total (11 pts)
Fayetteville	0.0	1.0	0.0	0.0	0.0	0.0	1.0
Lansing	0.0	1.0	0.0	0.0	0.0	0.0	1.0
Milwaukee	0.0	1.0	0.0	0.0	0.0	0.0	1.0
New Orleans	0.0	1.0	0.0	0.0	0.0	0.0	1.0
Louisville	0.0	0.0	0.0	0.0	0.0	0.5	0.5
Toledo	0.0	0.0	0.0	0.0	0.0	0.5	0.5
Akron	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Boise	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Des Moines	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Indianapolis	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Memphis	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mesa	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reno	0.0	0.0	0.0	0.0	0.0	0.0	0.0
San Antonio	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table E13. Scores for sustainable freight

City	Freight plans (3 pts)	Open data portals (3 pts)	Total (6 pts)
Los Angeles	3.0	3.0	6.0
Oakland	3.0	3.0	6.0
Atlanta	1.0	3.0	4.0
Long Beach	2.5	1.5	4.0
New York	2.5	1.5	4.0
Portland	3.0	0.0	3.0
Seattle	3.0	0.0	3.0
Washington, DC	3.0	0.0	3.0
Miami	0.5	1.5	2.0
Charleston	0.0	1.5	1.5
Denver	1.5	0.0	1.5
Pittsburgh	1.5	0.0	1.5
San José	1.5	0.0	1.5
Charlotte	1.0	0.0	1.0
Chattanooga	1.0	0.0	1.0
Chicago	1.0	0.0	1.0
Saint Paul	1.0	0.0	1.0
Tucson	1.0	0.0	1.0
Boston	0.5	0.0	0.5
Columbus	0.5	0.0	0.5
Houston	0.5	0.0	0.5
Milwaukee	0.5	0.0	0.5
Minneapolis	0.5	0.0	0.5
Nashville	0.5	0.0	0.5
Orlando	0.5	0.0	0.5
Richmond	0.5	0.0	0.5
San Antonio	0.5	0.0	0.5
San Francisco	0.5	0.0	0.5
Spokane	0.5	0.0	0.5
Akron	0.0	0.0	0.0

City	Freight plans (3 pts)	Open data portals (3 pts)	Total (6 pts)
Albuquerque	0.0	0.0	0.0
Aurora	0.0	0.0	0.0
Austin	0.0	0.0	0.0
Baltimore	0.0	0.0	0.0
Boise	0.0	0.0	0.0
Bridgeport	0.0	0.0	0.0
Chula Vista	0.0	0.0	0.0
Cincinnati	0.0	0.0	0.0
Cleveland	0.0	0.0	0.0
Dallas	0.0	0.0	0.0
Des Moines	0.0	0.0	0.0
Detroit	0.0	0.0	0.0
Durham	0.0	0.0	0.0
Fayetteville	0.0	0.0	0.0
Fresno	0.0	0.0	0.0
Grand Rapids	0.0	0.0	0.0
Hartford	0.0	0.0	0.0
Honolulu	0.0	0.0	0.0
Indianapolis	0.0	0.0	0.0
Kansas City	0.0	0.0	0.0
Knoxville	0.0	0.0	0.0
Lansing	0.0	0.0	0.0
Las Vegas	0.0	0.0	0.0
Louisville	0.0	0.0	0.0
Madison	0.0	0.0	0.0
Memphis	0.0	0.0	0.0
Mesa	0.0	0.0	0.0
New Haven	0.0	0.0	0.0
New Orleans	0.0	0.0	0.0
Oxnard	0.0	0.0	0.0
Philadelphia	0.0	0.0	0.0

City	Freight plans (3 pts)	Open data portals (3 pts)	Total (6 pts)
Phoenix	0.0	0.0	0.0
Providence	0.0	0.0	0.0
Raleigh	0.0	0.0	0.0
Reno	0.0	0.0	0.0
Riverside	0.0	0.0	0.0
Rochester	0.0	0.0	0.0
Sacramento	0.0	0.0	0.0
Salt Lake City	0.0	0.0	0.0
San Diego	0.0	0.0	0.0
Springfield	0.0	0.0	0.0
St. Louis	0.0	0.0	0.0
St. Petersburg	0.0	0.0	0.0
Tampa	0.0	0.0	0.0
Toledo	0.0	0.0	0.0

COMMUNITY ENERGY INFRASTRUCTURE

Table E14. Scores for electric utility efficiency efforts and city–utility partnerships

City	Electric utility	Electric utility type	Natural gas utility	Natural gas utility type	Electric efficiency savings and partnerships
San José	PG&E	IOU	PG&E	IOU	5.0
Minneapolis	Xcel Energy (Northern States Power)	IOU	CenterPoint Energy (MN)	IOU	5.0
San Diego	San Diego Gas & Electric Co.	IOU	San Diego Gas & Electric	IOU	5.0
San Francisco	PG&E	IOU	PG&E	IOU	5.0
Oakland	PG&E	IOU	PG&E	IOU	5.0
Madison	Madison Gas & Electric	IOU	Madison Gas & Electric	IOU	5.0
Springfield	Eversource (MA)	IOU	Eversource (MA)	IOU	5.0
Orlando	Orlando Utilities Commission	Muni	TECO Peoples Gas	IOU	5.0
Boston	Eversource (MA)	IOU	National Grid (Boston Gas & Colonial Gas Co.)	IOU	4.5
Saint Paul	Xcel Energy (Northern States Power)	IOU	Xcel Energy (Northern States Power)	IOU	4.5
Chicago	Commonwealth Edison Co.	IOU	Peoples Gas	IOU	4.5
Grand Rapids	Consumers Energy Co.	IOU	DTE Energy	IOU	4.5
Chula Vista	San Diego Gas & Electric Co.	IOU	San Diego Gas & Electric	IOU	4.0
Fresno	PG&E	IOU	PG&E	IOU	4.0
Denver	Xcel Energy (Public Service Co. of CO)	IOU	Xcel Energy (Public Service Co. of CO)	IOU	4.0
Providence	National Grid RI (Narragansett)	IOU	National Grid RI (Narragansett)	IOU	4.0
Honolulu	Hawaiian Electric Co.	IOU	Hawaii Gas	IOU	4.0

City	Electric utility	Electric utility type	Natural gas utility	Natural gas utility type	Electric efficiency savings and partnerships
Detroit	DTE Electric Company	IOU	DTE Electric Company	IOU	4.0
Mesa	Salt River Project	Muni	Southwest Gas	IOU	4.0
Los Angeles	LADWP	Muni	SoCal Gas	IOU	3.0
New York	Consolidated Edison Co.-NY, Inc.	IOU	National Grid (Brooklyn Union Gas Co.)/NYSERDA	IOU	3.0
Baltimore	Baltimore Gas & Electric Co.	IOU	Baltimore Gas & Electric	IOU	3.0
Aurora	Xcel Energy (Public Service Co. of CO)	IOU	Xcel Energy (Public Service Co. of CO)	IOU	3.0
Tucson	Tucson Electric Power Co.	IOU	Southwest Gas	IOU	3.0
Hartford	Eversource (Connecticut Light & Power)	IOU	Connecticut Natural Gas	IOU	2.5
Phoenix	Arizona Public Service Co.	IOU	Southwest Gas	IOU	2.5
Salt Lake City	Rocky Mountain Power (PacifiCorp)	IOU	Dominion Energy (Questar Gas)	IOU	2.5
Seattle	Seattle City Light	Muni	Puget Sound Energy	IOU	2.0
New Haven	United Illuminating Co.	IOU	Southern Connecticut Gas	IOU	2.0
Raleigh	Duke Energy Progress	IOU	PSNC Energy	IOU	2.0
St. Louis	Ameren UE (Union Electric)	IOU	Spire Missouri	IOU	2.0
Bridgeport	United Illuminating Co.	IOU	Southern Connecticut Gas	IOU	2.0
Indianapolis	AES Indiana	IOU	Citizens Energy Group	IOU	2.0

City	Electric utility	Electric utility type	Natural gas utility	Natural gas utility type	Electric efficiency savings and partnerships
Charlotte	Duke Energy Carolinas, LLC	IOU	Piedmont Natural Gas	IOU	1.5
Kansas City	KCP&L (Evergy)	IOU	Spire Missouri	IOU	1.5
Philadelphia	PECO Energy Co.	IOU	PGW	Muni	1.5
Boise	Idaho Power Co.	IOU	Intermountain Natural Gas	IOU	1.5
Portland	Portland General Electric	IOU	NW Natural	IOU	1.0
Washington, DC	PEPCO	Muni	Washington Gas (DC SEU)	Muni	1.0
Milwaukee	We Energies	IOU	We Energies	IOU	1.0
Rochester	Rochester Gas & Electric	IOU	Rochester Gas & Electric	IOU	1.0
Las Vegas	NV Energy	IOU	Southwest Gas	IOU	1.0
New Orleans	Entergy New Orleans, LLC	Muni	Entergy New Orleans, LLC	Muni	1.0
Reno	NV Energy	IOU	NV Energy	IOU	1.0
Tampa	Tampa Electric Co.	IOU	TECO Peoples Gas	IOU	1.0
Atlanta	Georgia Power Co.	IOU	Atlanta Gas Light (Southern Company Gas)	IOU	0.5
Columbus	American Electric Power (Ohio Power)	IOU	Columbia Gas of Ohio (NiSource)	IOU	0.5
Lansing	Lansing BWL	Muni	Consumers	IOU	0.5
San Antonio	CPS Energy (City of San Antonio)	Muni	CPS Energy (San Antonio PSB)	Muni	0.5
St. Petersburg	Duke Energy Florida, LLC	IOU	TECO Peoples Gas	IOU	0.5
Sacramento	SMUD	Muni	PG&E	IOU	0.0
Riverside	City of Riverside - (CA)	Muni	SoCal Gas	IOU	0.0
Austin	Austin Energy	Muni	Texas Gas Service	IOU	0.0

City	Electric utility	Electric utility type	Natural gas utility	Natural gas utility type	Electric efficiency savings and partnerships
Albuquerque	Public Service Co. of NM	IOU	New Mexico Gas	IOU	0.0
Knoxville	Knoxville Utilities Board	Muni	Knoxville Utilities Board	Muni	0.0
Pittsburgh	Duquesne Light Co.	IOU	Peoples Natural Gas	IOU	0.0
Nashville	Nashville Electric Service	Muni	Piedmont Natural Gas	IOU	0.0
Oxnard	Southern California Edison	IOU	SoCal Gas	IOU	0.0
Des Moines	MidAmerican Energy Co.	IOU	MidAmerican Energy	IOU	0.0
Durham	Duke Energy Carolinas, LLC	IOU	Duke Energy Carolinas, LLC	IOU	0.0
Long Beach	Southern California Edison	IOU	Long Beach Energy Resources	Muni	0.0
Cleveland	First Energy (Cleveland Electric Illuminating)	IOU	Dominion Energy Ohio	IOU	0.0
Houston	CenterPoint Energy (TX)	IOU	CenterPoint Energy (TX)	IOU	0.0
Memphis	Memphis Light, Gas & Water	Muni	Memphis Light, Gas & Water	Muni	0.0
Miami	Florida Power & Light Co.	IOU	TECO Peoples Gas	IOU	0.0
Dallas	ONCOR	IOU	ATMOS Energy	IOU	0.0
Louisville	Louisville Gas & Electric Co.	IOU	Louisville Gas & Electric	IOU	0.0
Cincinnati	Duke Energy Ohio	IOU	Duke Energy Ohio	IOU	0.0
Richmond	Dominion Virginia Power	IOU	Richmond Department of Public Utilities	Muni	0.0
Akron	First Energy (Ohio Edison)	IOU	Dominion Energy Ohio	IOU	0.0

City	Electric utility	Electric utility type	Natural gas utility	Natural gas utility type	Electric efficiency savings and partnerships
Toledo	First Energy (Toledo Edison)	IOU	Columbia Gas of Ohio (NiSource)	IOU	0.0
Charleston	Dominion Energy South Carolina, Inc.	IOU	Dominion Energy South Carolina, Inc	IOU	0.0
Chattanooga	EPB	IOU	Chattanooga Gas	IOU	0.0
Fayetteville	Southwestern Electric Power Co.	IOU	Southwestern Electric Power Co.	IOU	0.0
Spokane	Avista Corp.	IOU	Avista Corp.	IOU	0.0

Sources: Savings and sales data are as reported for 2021 by utility staff except where noted. We include savings from the utilities as well as from statewide prog:am administrators (i.e., NYSERDA, TVA, Energy Trust of Oregon, Focus on Energy, Hawai'i Energy, and DCSEU) that are attributable to each utility. Savings converted from gross to net using 0.80 conversion factor. For utilities that did not respond to our data request, we used 2021 savings data from EIA-861 (EIA 2021a).

Table E15. Scores for natural gas efficiency efforts of energy utilities

City	Natural gas utility	Natural gas utility type	2021 Net incremental savings (Mmtherms)	2021 Net incremental savings (Mmtherms)	2021 Percentage of retail sales	Savings score
Boston	National Grid (Boston Gas & Colonial Gas Co.)	I	62,280,409	16,134	2.68%	2.0
San Francisco	PG&E	I	203,784,404	42.80	2.18%	2.0
San José	PG&E	I	203,784,404	42.80	2.18%	2.0
Oakland	PG&E	I	203,784,404	42.80	2.18%	2.0
Sacramento	PG&E	I	203,784,404	42.80	2.18%	2.0
Fresno	PG&E	I	203,784,404	42.80	2.18%	2.0
Minneapolis	CenterPoint Energy (MN)	I	117,788,647	18.72	1.65%	2.0
Los Angeles	SoCal Gas	I	290,230,864	43.70	1.56%	2.0
Riverside	SoCal Gas	I	290,230,864	43.70	1.56%	2.0
Oxnard	SoCal Gas	I	290,230,864	43.70	1.56%	2.0
San Diego	San Diego Gas & Electric	I	42,422,369	6.04	1.48%	2.0
Chula Vista	San Diego Gas & Electric	I	42,422,369	6.04	1.48%	2.0
Washington, DC	Washington Gas (DC SEU)	I	11,607,950	1.61	1.44%	2.0
Providence	National Grid RI (Narragansett)	I	24,442,951	3.16	1.34%	2.0
Denver	Xcel Energy (Public Service Co. of CO)	I	128,946,691	8.12	0.65%	1.0
Aurora	Xcel Energy (Public Service Co. of CO)	I	128,946,691	8.12	0.65%	1.0
Seattle	Puget Sound Energy	I	91,606,461	2.36	0.27%	1.0
Columbus	Columbia Gas of Ohio (NiSource)	I	168,233,040	10.90	0.67%	1.0
Madison	Madison Gas & Electric	I	17,777,026	0.91	0.53%	1.0
Toledo	Columbia Gas of Ohio (NiSource)	I	168,233,040	10.90	0.67%	1.0

Sources: All sales data are from 2021 EIA-176 (EIA 2021b). All 2021 savings data are from utility staff. We include savings from the utilities as well as statewide program administrators (i.e., Focus on Energy and DCSEU) that are attributable to each utility. †Savings converted from gross to net using 0.90 conversion factor.

Table E16. Scores for low-income and multifamily energy efficiency programs

City	Electric utility	Natural gas utility	Comprehensive program (2 pts)	Program portfolio (1 pt)	Braiding funding (1 pt)	Dedicated funds for reducing deferral rates (1 pt)	Dedicated programs to reduce deferral rates (1 pt)	Equity-related goals (2 pts)	Gap analysis (2 pts)
Boston	Eversource (MA)	National Grid (Boston Gas & Colonial Gas Co.)	2.0	1.0	1.0	1.0	2.0	2.0	2.0
Springfield	Eversource (MA)	Eversource (MA)	2.0	1.0	1.0	1.0	2.0	2.0	2.0
New York	Consolidated Edison Co.-NY, Inc.	National Grid (Brooklyn Union Gas Co.)/NYSERDA	2.0	1.0	1.0	1.0	2.0	2.0	2.0
Los Angeles	LADWP	SoCal Gas	2.0	1.0	1.0	1.0	2.0	2.0	2.0
Detroit	DTE Electric Company	DTE Energy	2.0	1.0	1.0	0.0	2.0	2.0	2.0
Durham	Duke Energy Carolinas, LLC	Duke Energy Carolinas, LLC	2.0	1.0	1.0	1.0	2.0	1.0	2.0
Charlotte	Duke Energy Carolinas, LLC	Piedmont Natural Gas	2.0	1.0	1.0	1.0	2.0	1.0	2.0
Raleigh	Duke Energy Progress	PSNC Energy	2.0	1.0	1.0	1.0	2.0	1.0	2.0
Atlanta	Georgia Power Co.	Atlanta Gas Light (Southern Company Gas)	2.0	1.0	1.0	1.0	2.0	2.0	1.0
Riverside	City of Riverside (CA)	SoCal Gas	2.0	1.0	1.0	0.0	2.0	2.0	1.0
Pittsburgh	Duquesne Light Co.	Peoples Natural Gas	2.0	1.0	1.0	1.0	2.0	0.0	2.0

City	Electric utility	Natural gas utility	Comprehensive program (2 pts)	Program portfolio (1 pt)	Braiding funding (1 pt)	Dedicated funds for reducing deferral rates (1 pt)	Dedicated programs to reduce deferral rates (1 pt)	Equity-related goals (2 pts)	Gap analysis (2 pts)
Hartford	Eversource (Connecticut Light & Power)	Connecticut Natural Gas	2.0	1.0	1.0	1.0	0.0	2.0	2.0
Providence	National Grid RI (Narragansett)	National Grid RI (Narragansett)	2.0	0.0	1.0	1.0	2.0	2.0	1.0
Oakland	PG&E	PG&E	2.0	1.0	1.0	1.0	0.0	2.0	2.0
Fresno	PG&E	PG&E	2.0	1.0	1.0	1.0	0.0	2.0	2.0
San Francisco	PG&E	PG&E	2.0	1.0	1.0	1.0	0.0	2.0	2.0
San José	PG&E	PG&E	2.0	1.0	1.0	1.0	0.0	2.0	2.0
San Diego	San Diego Gas & Electric Co.	San Diego Gas & Electric	2.0	1.0	1.0	1.0	2.0	0.0	2.0
Chula Vista	San Diego Gas & Electric Co.	San Diego Gas & Electric	2.0	1.0	1.0	1.0	2.0	0.0	2.0
Seattle	Seattle City Light	Puget Sound Energy	2.0	1.0	1.0	1.0	2.0	0.0	2.0
Sacramento	SMUD	PG&E	2.0	1.0	1.0	1.0	0.0	2.0	2.0
Minneapolis	Xcel Energy (Northern States Power)	CenterPoint Energy (MN)	2.0	1.0	1.0	1.0	2.0	0.0	2.0
Saint Paul	Xcel Energy (Northern States Power)	Xcel Energy (Northern States Power)	2.0	1.0	1.0	1.0	2.0	0.0	2.0
Austin	Austin Energy	Texas Gas Service	2.0	1.0	1.0	1.0	1.0	0.0	2.0

City	Electric utility	Natural gas utility	Comprehensive program (2 pts)	Program portfolio (1 pt)	Braiding funding (1 pt)	Dedicated funds for reducing deferral rates (1 pt)	Dedicated programs to reduce deferral rates (1 pt)	Equity-related goals (2 pts)	Gap analysis (2 pts)
Chicago	Commonwealth Edison Co.	Peoples Gas	2.0	1.0	1.0	1.0	2.0	0.0	1.0
Grand Rapids	Consumers	DTE Energy	2.0	1.0	1.0	1.0	2.0	1.0	0.0
Knoxville	Knoxville Utilities Board	Knoxville Utilities Board	2.0	1.0	0.0	1.0	2.0	2.0	0.0
Orlando	Orlando Utilities Commission	TECO Peoples Gas	2.0	1.0	0.0	1.0	0.0	2.0	2.0
Portland	Portland General Electric	NW Natural	2.0	1.0	1.0	0.0	0.0	2.0	2.0
Rochester	Rochester Gas & Electric	Rochester Gas & Electric	2.0	1.0	1.0	0.0	2.0	1.0	1.0
St. Louis	Ameren UE (Union Electric)	Spire Missouri	2.0	1.0	1.0	1.0	2.0	0.0	0.0
Honolulu	Hawaiian Electric Co.	Hawaii Gas	2.0	0.0	1.0	0.0	0.0	2.0	2.0
Philadelphia	PECO Energy Co.	PGW	2.0	1.0	1.0	0.0	2.0	0.0	1.0
Baltimore	Baltimore Gas & Electric Co.	Baltimore Gas & Electric	2.0	0.0	1.0	1.0	2.0	0.0	0.0
Richmond	Dominion Virginia Power	Richmond Department of Public Utilities	2.0	1.0	0.0	1.0	2.0	0.0	0.0
Kansas City	KCP&L (Evergy)	Spire Missouri	1.0	1.0	1.0	1.0	2.0	0.0	0.0
Lansing	Lansing BWL	Consumers	1.0	0.0	1.0	0.0	2.0	0.0	2.0

City	Electric utility	Natural gas utility	Comprehensive program (2 pts)	Program portfolio (1 pt)	Braiding funding (1 pt)	Dedicated funds for reducing deferral rates (1 pt)	Dedicated programs to reduce deferral rates (1 pt)	Equity-related goals (2 pts)	Gap analysis (2 pts)
Salt Lake City	Rocky Mountain Power (PacifiCorp)	Dominion Energy (Questar Gas)	2.0	1.0	1.0	1.0	0.0	0.0	1.0
Oxnard	Southern California Edison	SoCal Gas	2.0	1.0	1.0	1.0	0.0	0.0	1.0
Milwaukee	We Energies	We Energies	2.0	1.0	0.0	1.0	0.0	0.0	2.0
Columbus	American Electric Power (Ohio Power)	Columbia Gas of Ohio (NiSource)	1.0	1.0	0.0	1.0	2.0	0.0	0.0
Madison	Madison Gas & Electric	Madison Gas & Electric	2.0	0.0	0.0	1.0	2.0	0.0	0.0
Memphis	Memphis Light, Gas & Water	Memphis Light, Gas & Water	2.0	0.0	0.0	1.0	2.0	0.0	0.0
Des Moines	MidAmerican Energy Co.	MidAmerican Energy	2.0	1.0	1.0	1.0	0.0	0.0	0.0
Nashville	Nashville Electric Service	Piedmont Natural Gas	2.0	0.0	0.0	1.0	2.0	0.0	0.0
Washington, DC	PEPCO	Washington Gas (DC SEU)	2.0	1.0	1.0	0.0	0.0	1.0	0.0
Albuquerque	Public Service Co. of NM	New Mexico Gas	2.0	1.0	0.0	1.0	0.0	1.0	0.0
New Haven	United Illuminating Co.	Southern Connecticut Gas	2.0	0.0	0.0	0.0	0.0	2.0	1.0
Bridgeport	United Illuminating Co.	Southern Connecticut Gas	2.0	0.0	0.0	0.0	0.0	2.0	1.0

City	Electric utility	Natural gas utility	Comprehensive program (2 pts)	Program portfolio (1 pt)	Braiding funding (1 pt)	Dedicated funds for reducing deferral rates (1 pt)	Dedicated programs to reduce deferral rates (1 pt)	Equity-related goals (2 pts)	Gap analysis (2 pts)
Denver	Xcel Energy (Public Service Co. of CO)	Xcel Energy (Public Service Co. of CO)	2.0	1.0	1.0	1.0	0.0	0.0	0.0
Aurora	Xcel Energy (Public Service Co. of CO)	Xcel Energy (Public Service Co. of CO)	2.0	1.0	1.0	1.0	0.0	0.0	0.0
Phoenix	Arizona Public Service Co.	Southwest Gas	2.0	0.0	0.0	0.0	2.0	0.0	0.0
Toledo	First Energy (Toledo Edison)	Columbia Gas of Ohio (NiSource)	1.0	0.0	0.0	1.0	2.0	0.0	0.0
Long Beach	Southern California Edison	Long Beach Energy Resources	2.0	0.0	0.0	1.0	0.0	0.0	1.0
Cleveland	First Energy (Cleveland Electric Illuminating)	Dominion Energy Ohio	2.0	0.0	0.0	1.0	0.0	0.0	0.0
Akron	First Energy (Ohio Edison)	Dominion Energy Ohio	2.0	0.0	0.0	1.0	0.0	0.0	0.0
Las Vegas	NV Energy	Southwest Gas	1.0	0.0	0.0	0.0	0.0	0.0	2.0
Reno	NV Energy	NV Energy	1.0	0.0	0.0	0.0	0.0	0.0	2.0
Indianapolis	AES Indiana	Citizens Energy Group	2.0	0.0	0.0	0.0	0.0	0.0	0.0
Houston	CenterPoint Energy (TX)	CenterPoint Energy (TX)	0.0	1.0	1.0	0.0	0.0	0.0	0.0
San Antonio	CPS Energy (City of San Antonio)	CPS Energy (San Antonio PSB)	2.0	0.0	0.0	0.0	0.0	0.0	0.0

City	Electric utility	Natural gas utility	Comprehensive program (2 pts)	Program portfolio (1 pt)	Braiding funding (1 pt)	Dedicated funds for reducing deferral rates (1 pt)	Dedicated programs to reduce deferral rates (1 pt)	Equity-related goals (2 pts)	Gap analysis (2 pts)
Charleston	Dominion Energy South Carolina, Inc.	Dominion Energy South Carolina	2.0	0.0	0.0	0.0	0.0	0.0	0.0
New Orleans	Entergy New Orleans, LLC	Entergy New Orleans	2.0	0.0	0.0	0.0	0.0	0.0	0.0
Dallas	ONCOR	ATMOS Energy	2.0	0.0	0.0	0.0	0.0	0.0	0.0
Tampa	Tampa Electric Co.	TECO Peoples Gas	2.0	0.0	0.0	0.0	0.0	0.0	0.0
Tucson	Tucson Electric Power Co.	Southwest Gas	1.0	0.0	0.0	0.0	0.0	0.0	0.0
Fayetteville	AEP / SWEPCO	SWEPCO	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Spokane	Avista	AVISTA	0.0	0.0	0.0	0.0	0.0	0.0	0.0
St. Petersburg	Duke Energy Florida, LLC	TECO Peoples Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cincinnati	Duke Energy Ohio	Duke Energy Ohio	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chattanooga	EPB	Chattanooga Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Miami	Florida Power & Light Co.	TECO Peoples Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Boise	Idaho Power Co.	Intermountain Natural Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Louisville	Louisville Gas & Electric Co.	Louisville Gas & Electric	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mesa	Salt River Project	Southwest Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table E17. Scores for the provision of energy data by utilities

City	Automated benchmarking (1 pt)	Community energy data (1 pt)	Advocacy or request for data* (0.5 pt each 1 pt max)	Total (2 pts max)
San Francisco	1.0	1.0	0.0	2.0
Seattle	1.0	1.0	0.0	2.0
Washington, DC	1.0	1.0	0.0	2.0
Minneapolis	1.0	1.0	0.0	2.0
Boston	1.0	1.0	0.0	2.0
New York	1.0	1.0	0.0	2.0
Denver	1.0	1.0	0.0	2.0
Los Angeles	1.0	1.0	0.0	2.0
Oakland	1.0	1.0	0.0	2.0
Chicago	1.0	1.0	0.0	2.0
Austin	1.0	1.0	0.0	2.0
Atlanta	1.0	1.0	0.0	2.0
San Diego	1.0	1.0	0.0	2.0
Chula Vista	1.0	1.0	0.0	2.0
Hartford	1.0	1.0	0.0	2.0
Sacramento	1.0	1.0	0.0	2.0
Saint Paul	1.0	1.0	0.0	2.0
Pittsburgh	1.0	1.0	0.0	2.0

City	Automated benchmarking (1 pt)	Community energy data (1 pt)	Advocacy or request for data* (0.5 pt each 1 pt max)	Total (2 pts max)
Baltimore	1.0	1.0	0.0	2.0
Columbus	1.0	1.0	0.0	2.0
St. Louis	1.0	1.0	0.0	2.0
Aurora	1.0	1.0	0.0	2.0
Salt Lake City	1.0	1.0	0.0	2.0
Madison	1.0	1.0	0.0	2.0
Riverside	1.0	1.0	0.0	2.0
Fresno	1.0	1.0	0.0	2.0
Springfield	1.0	1.0	0.0	2.0
New Haven	1.0	1.0	0.0	2.0
Des Moines	0.0	1.0	1.0	2.0
Bridgeport	1.0	1.0	0.0	2.0
San José	1.0	1.0	0.0	2.0
Portland	1.0	0.5	0.0	1.5
Orlando	0.0	1.0	0.5	1.5
Grand Rapids	0.0	0.5	1.0	1.5
Kansas City	0.0	1.0	0.5	1.5
Nashville	0.0	1.0	0.5	1.5
Miami	0.0	1.0	0.5	1.5
Indianapolis	0.0	1.0	0.5	1.5
Phoenix	0.0	1.0	0.0	1.0

City	Automated benchmarking (1 pt)	Community energy data (1 pt)	Advocacy or request for data* (0.5 pt each 1 pt max)	Total (2 pts max)
Honolulu	0.5	0.5	0.0	1.0
Providence	1.0	0.0	0.0	1.0
Long Beach	0.0	1.0	0.0	1.0
Albuquerque	0.0	1.0	0.0	1.0
Las Vegas	0.0	1.0	0.0	1.0
Houston	0.0	1.0	0.0	1.0
San Antonio	0.0	1.0	0.0	1.0
Cleveland	0.0	1.0	0.0	1.0
Boise	0.0	1.0	0.0	1.0
Knoxville	0.0	1.0	0.0	1.0
Memphis	0.0	1.0	0.0	1.0
Detroit	1.0	0.0	0.0	1.0
Oxnard	1.0	0.0	0.0	1.0
Raleigh	0.0	1.0	0.0	1.0
New Orleans	1.0	0.0	0.0	1.0
Lansing	0.0	1.0	0.0	1.0
Charlotte	0.0	0.0	0.5	0.5
Dallas	0.0	0.0	0.5	0.5
Milwaukee	0.0	0.0	0.5	0.5
Reno	0.0	0.0	0.5	0.5
Tampa	0.0	0.5	0.0	0.5

City	Automated benchmarking (1 pt)	Community energy data (1 pt)	Advocacy or request for data* (0.5 pt each 1 pt max)	Total (2 pts max)
Philadelphia	0.0	0.0	0.0	0.0
Cincinnati	0.0	0.0	0.0	0.0
Richmond	0.0	0.0	0.0	0.0
Rochester	0.0	0.0	0.0	0.0
St. Petersburg	0.0	0.0	0.0	0.0
Louisville	0.0	0.0	0.0	0.0
Mesa	0.0	0.0	0.0	0.0
Tucson	0.0	0.0	0.0	0.0
Toledo	0.0	0.0	0.0	0.0
Charleston	0.0	0.0	0.0	0.0
Akron	0.0	0.0	0.0	0.0
Durham	0.0	0.0	0.0	0.0
Fayetteville	0.0	0.0	0.0	0.0
Spokane	0.0	0.0	0.0	0.0
Chattanooga	0.0	0.0	0.0	0.0

***Utilities that had community energy data could not earn additional points for advocacy.**

Table E18. Scores for city-led efforts to decarbonize the electric grid (IOUs only)

City	Electric utility	PUC comments (1 pt)	Formal partnership (1 pt)	City planning efforts (1 pt)	Involvement in utility planning efforts (1 pt)	Community choice aggregation (3 pts)	Total (max 3 pts*)
San Francisco	PG&E	0.0	0.0	0.0	0.0	3.0	3.0
Minneapolis	Xcel Energy (Northern States Power)	1.0	1.0	1.0	1.0	0.0	3.0
Boston	Eversource (MA)	1.0	0.0	0.0	0.0	3.0	3.0
New York	Consolidated Edison Co.-NY, Inc.	1.0	0.0	1.0	1.0	0.0	3.0
Denver	Xcel Energy (Public Service Co. of CO)	1.0	1.0	1.0	1.0	0.0	3.0
Oakland	PG&E	1.0	0.0	0.0	0.0	3.0	3.0
Portland	Portland General Electric	1.0	1.0	1.0	1.0	2.0	3.0
Chicago	Commonwealth Edison Co.	1.0	1.0	1.0	0.0	0.0	3.0
Atlanta	Georgia Power Co.	1.0	0.0	1.0	1.0	0.0	3.0
San Diego	San Diego Gas & Electric Co.	1.0	0.0	0.0	0.0	3.0	3.0
Chula Vista	San Diego Gas & Electric Co.	1.0	0.0	0.0	0.0	3.0	3.0

City	Electric utility	PUC comments (1 pt)	Formal partnership (1 pt)	City planning efforts (1 pt)	Involvement in utility planning efforts (1 pt)	Community choice aggregation (3 pts)	Total (max 3 pts*)
Hartford	Eversource (Connecticut Light & Power)	1.0	1.0	1.0	1.0	0.0	3.0
Saint Paul	Xcel Energy (Northern States Power)	1.0	1.0	0.0	1.0	0.0	3.0
Phoenix	Arizona Public Service Co.	1.0	1.0	1.0	1.0	0.0	3.0
Baltimore	Baltimore Gas & Electric Co.	1.0	0.0	1.0	0.0	2.0	3.0
Honolulu	Hawaiian Electric Co.	1.0	1.0	0.0	1.0	0.0	3.0
Providence	National Grid RI (Narragansett)	1.0	0.0	0.0	0.0	2.0	3.0
Columbus	American Electric Power (Ohio Power)	0.0	0.0	0.0	0.0	3.0	3.0
Albuquerque	Public Service Co. of NM	1.0	0.0	1.0	1.0	0.0	3.0
Grand Rapids	Consumers Energy Co.	1.0	1.0	1.0	1.0	0.0	3.0
Las Vegas	NV Energy	1.0	0.0	1.0	1.0	0.0	3.0
Cleveland	First Energy (Cleveland	1.0	0.0	0.0	0.0	3.0	3.0

City	Electric utility	PUC comments (1 pt)	Formal partnership (1 pt)	City planning efforts (1 pt)	Involvement in utility planning efforts (1 pt)	Community choice aggregation (3 pts)	Total (max 3 pts*)
	Electric Illuminating)						
Madison	Madison Gas & Electric	1.0	1.0	1.0	0.0	0.0	3.0
Boise	Idaho Power Co.	1.0	0.0	1.0	1.0	0.0	3.0
Charlotte	Duke Energy Carolinas, LLC	1.0	1.0	1.0	1.0	0.0	3.0
Cincinnati	Duke Energy Ohio	1.0	0.0	0.0	0.0	3.0	3.0
Dallas	ONCOR	0.0	1.0	1.0	1.0	0.0	3.0
Miami	Florida Power & Light Co.	1.0	1.0	0.0	1.0	0.0	3.0
Springfield	Eversource (MA)	0.0	0.0	0.0	1.0	2.0	3.0
Rochester	Rochester Gas & Electric	0.0	0.0	0.0	0.0	3.0	3.0
Milwaukee	We Energies	1.0	1.0	1.0	1.0	0.0	3.0
Oxnard	Southern California Edison	0.0	0.0	0.0	0.0	3.0	3.0
Des Moines	MidAmerican Energy Co.	0.0	1.0	1.0	1.0	0.0	3.0
Akron	First Energy (Ohio Edison)	0.0	0.0	0.0	0.0	3.0	3.0

City	Electric utility	PUC comments (1 pt)	Formal partnership (1 pt)	City planning efforts (1 pt)	Involvement in utility planning efforts (1 pt)	Community choice aggregation (3 pts)	Total (max 3 pts*)
San José	PG&E	1.0	0.0	0.0	0.0	3.0	3.0
Pittsburgh	Duquesne Light Co.	1.0	0.0	0.0	1.0	0.0	2.0
Long Beach	Southern California Edison	0.0	1.0	0.0	1.0	0.0	2.0
Houston	CenterPoint Energy (TX)	1.0	0.0	0.0	1.0	0.0	2.0
Kansas City	KCP&L (Evergy)	1.0	1.0	0.0	0.0	0.0	2.0
New Haven	United Illuminating Co.	0.0	0.0	1.0	0.0	1.0	2.0
Louisville	Louisville Gas & Electric Co.	1.0	0.0	0.0	1.0	0.0	2.0
Indianapolis	AES Indiana	0.0	1.0	0.0	1.0	0.0	2.0
Tucson	Tucson Electric Power Co.	0.0	1.0	0.0	1.0	0.0	2.0
Philadelphia	PECO Energy Co.	0.0	0.0	0.0	1.0	0.0	1.0
St. Louis	Ameren UE (Union Electric)	0.0	0.0	1.0	0.0	0.0	1.0
Salt Lake City	Rocky Mountain Power (PacifiCorp)	1.0	0.0	0.0	0.0	0.0	1.0

City	Electric utility	PUC comments (1 pt)	Formal partnership (1 pt)	City planning efforts (1 pt)	Involvement in utility planning efforts (1 pt)	Community choice aggregation (3 pts)	Total (max 3 pts*)
St. Petersburg	Duke Energy Florida, LLC	0.0	0.0	0.0	1.0	0.0	1.0
Reno	NV Energy	1.0	0.0	0.0	0.0	0.0	1.0
Raleigh	Duke Energy Progress	0.0	0.0	0.0	1.0	0.0	1.0
Durham	Duke Energy Carolinas	0.0	1.0	0.0	0.0	0.0	1.0
Fayetteville	AEP / SWEPCO	0.0	0.0	0.0	1.0	0.0	1.0
Spokane	Avista Corp.	0.0	0.0	0.0	1.0	0.0	1.0
Seattle	Seattle City Light	N/A	N/A	N/A	N/A	N/A	0.0
Washington, DC	PEPCO	N/A	N/A	N/A	N/A	N/A	0.0
Los Angeles	LADWP	N/A	N/A	N/A	N/A	N/A	0.0
Austin	Austin Energy	N/A	N/A	N/A	N/A	N/A	0.0
Sacramento	SMUD	N/A	N/A	N/A	N/A	N/A	0.0
Orlando	Orlando Utilities Commission	N/A	N/A	N/A	N/A	N/A	0.0
Aurora	Xcel Energy (Public Service Co. of CO)	0.0	0.0	0.0	0.0	0.0	0.0

City	Electric utility	PUC comments (1 pt)	Formal partnership (1 pt)	City planning efforts (1 pt)	Involvement in utility planning efforts (1 pt)	Community choice aggregation (3 pts)	Total (max 3 pts*)
San Antonio	CPS Energy (City of San Antonio)	N/A	N/A	N/A	N/A	N/A	0.0
Riverside	City of Riverside (CA)	N/A	N/A	N/A	N/A	N/A	0.0
Knoxville	Knoxville Utilities Board	N/A	N/A	N/A	N/A	N/A	0.0
Nashville	Nashville Electric Service	N/A	N/A	N/A	N/A	N/A	0.0
Fresno	PG&E	0.0	0.0	0.0	0.0	0.0	0.0
Richmond	Dominion Virginia Power	N/A	N/A	N/A	N/A	N/A	0.0
Memphis	Memphis Light, Gas & Water	N/A	N/A	N/A	N/A	N/A	0.0
Detroit	DTE Electric Company	0.0	0.0	0.0	0.0	0.0	0.0
New Orleans	Entergy New Orleans, LLC	N/A	N/A	N/A	N/A	N/A	0.0
Bridgeport	United Illuminating Co.	0.0	0.0	0.0	0.0	0.0	0.0
Mesa	Salt River Project	N/A	N/A	N/A	N/A	N/A	0.0

City	Electric utility	PUC comments (1 pt)	Formal partnership (1 pt)	City planning efforts (1 pt)	Involvement in utility planning efforts (1 pt)	Community choice aggregation (3 pts)	Total (max 3 pts*)
Toledo	First Energy (Toledo Edison)	0.0	0.0	0.0	0.0	0.0	0.0
Charleston	Dominion Energy South Carolina, Inc.	0.0	0.0	0.0	0.0	0.0	0.0
Tampa	Tampa Electric Co.	0.0	0.0	0.0	0.0	0.0	0.0
Chattanooga	EPB	0.0	0.0	0.0	0.0	0.0	0.0
Lansing	Lansing BWL	N/A	N/A	N/A	N/A	N/A	0.0

***Only IOUs could earn points for this metric**

Table E19. Scores for GHG emissions from electric generation (scopes 1 and 2) per capita in 2021

City	Electric utility	Year of baseline emissions	Emissions target year	Target GHG reduction percentage	Average annual emissions reduction required	Scoring
Seattle	Seattle City Light	N/A	2005	100%	FULL CREDIT	2.0
Minneapolis	Xcel Energy (Northern States Power)	2005	2030	80%	6.00%	2.0
Boston	Eversource (MA)	1990	2030	100%	9.09%	2.0
Denver	Xcel Energy (Public Service Co. of CO)	2005	2030	80%	5.77%	2.0
Los Angeles	LADWP	1990	2035	100%	6.25%	2.0
Portland	Portland General Electric	2010	2030	80%	6.85%	2.0
Austin	Austin Energy	2005	2035	100%	6.67%	2.0
Hartford	Eversource (Connecticut Light & Power)	1990	2030	100%	9.09%	2.0
Sacramento	SMUD	2013	2030	100%	8.33%	2.0
Saint Paul	Xcel Energy (Northern States Power)	2005	2030	80%	6.00%	2.0
Aurora	Xcel Energy (Public Service Co. of CO)	2005	2030	80%	5.72%	2.0
Salt Lake City	Rocky Mountain Power (PacifiCorp)	2005	2030	60%	5.70%	2.0
Madison	Madison Gas & Electric	2005	2030	80%	6.86%	2.0
Miami	Florida Power & Light Co.	2005	2025	67%	8.30%	2.0
Springfield	Eversource (MA)	1990	2030	100%	9.09%	2.0

City	Electric utility	Year of baseline emissions	Emissions target year	Target GHG reduction percentage	Average annual emissions reduction required	Scoring
Rochester	Rochester Gas & Electric	2017	2035	100%	5.88%	2.0
Milwaukee	We Energies	2005	2025	60%	7.52%	2.0
New Haven	United Illuminating Co.	2017	2035	100%	5.88%	2.0
Indianapolis	AES Indiana	2016	2030	70%	5.03%	2.0
Bridgeport	United Illuminating Co.	2017	2035	100%	5.88%	2.0
Baltimore	Baltimore Gas & Electric Co.	2015	2022	15%	3.85%	1.5
San Francisco	PG&E	2017	2040	100%	4.55%	1.5
Washington, DC	PEPCO	2015	2022	15%	3.85%	1.5
New York	Consolidated Edison Co.-NY, Inc.	2014	2040	100%	4.76%	1.5
Oakland	PG&E	2017	2040	100%	4.55%	1.5
Chicago	Commonwealth Edison Co.	2015	2022	15%	3.85%	1.5
Philadelphia	PECO Energy Co.	2015	2022	15%	3.85%	1.5
San Diego	San Diego Gas & Electric Co.	2016	2045	100%	3.85%	1.5
Chula Vista	San Diego Gas & Electric Co.	2016	2045	100%	3.85%	1.5
Phoenix	Arizona Public Service Co.	2005	2050	100%	3.23%	1.5
Long Beach	Southern California Edison	2017	2045	100%	3.70%	1.5
St. Louis	Ameren UE (Union Electric)	2005	2030	50%	3.58%	1.5
Albuquerque	Public Service Co. of NM	2017	2040	100%	4.76%	1.5
Grand Rapids	Consumers	2005	2040	100%	4.76%	1.5

City	Electric utility	Year of baseline emissions	Emissions target year	Target GHG reduction percentage	Average annual emissions reduction required	Scoring
Houston	CenterPoint Energy (TX)	2005	2035	70%	3.57%	1.5
San Antonio	CPS Energy (City of San Antonio)	2016	2040	80%	3.92%	1.5
Boise	Idaho Power Co.	2005	2045	100%	3.85%	1.5
Knoxville	Knoxville Utilities Board	2005	2030	70%	3.51%	1.5
Nashville	Nashville Electric Service	2005	2030	70%	3.51%	1.5
Fresno	PG&E	2017	2040	100%	4.55%	1.5
Richmond	Dominion Virginia Power	2005	2050	100%	3.23%	1.5
Memphis	Memphis Light, Gas & Water	2005	2030	70%	3.51%	1.5
Detroit	DTE Electric Company	2005	2023	32%	4.16%	1.5
Oxnard	Southern California Edison	2017	2045	100%	3.70%	1.5
Des Moines	MidAmerican Energy Co.	2005	2050	100%	3.45%	1.5
New Orleans	Entergy New Orleans, LLC	2000	2030	50%	3.01%	1.5
San José	PG&E	2017	2040	100%	4.55%	1.5
Atlanta	Georgia Power Co.	2007	2030	50%	1.80%	1.0
Orlando	Orlando Utilities Commission	2005	2030	50%	2.35%	1.0
Providence	National Grid RI (Narragansett)	1990	2030	80%	1.89%	1.0
Columbus	American Electric Power (Ohio Power)	2000	2030	80%	2.46%	1.0
Kansas City	KCP&L (Evergy)	2005	2050	80%	1.41%	1.0

City	Electric utility	Year of baseline emissions	Emissions target year	Target GHG reduction percentage	Average annual emissions reduction required	Scoring
Cleveland	First Energy (Cleveland Electric Illuminating)	2019	2030	30%	2.77%	1.0
Riverside	City of Riverside (CA)	1990	2030	486,277 MMT CO2[9]	2.82%	1.0
Charlotte	Duke Energy Carolinas, LLC	2005	2030	50%	1.74%	1.0
Cincinnati	Duke Energy Ohio	2005	2030	50%	1.74%	1.0
St. Petersburg	Duke Energy Florida, LLC	2005	2030	50%	1.74%	1.0
Louisville	Louisville Gas & Electric Co.	2010	2040	70%	1.76%	1.0
Raleigh	Duke Energy Progress	2005	2030	50%	1.74%	1.0
Toledo	First Energy (Toledo Edison)	2019	2030	30%	2.77%	1.0
Charleston	Dominion Energy South Carolina, Inc.	2005	2050	80%	2.13%	1.0
Akron	First Energy (Ohio Edison)	2019	2030	30%	2.77%	1.0
Durham	Duke Energy Carolinas, LLC	2005	2030	50%	1.74%	1.0
Fayetteville	Southwestern Electric Power Co.	2000	2030	80%	#N/A	1.0

This table excludes utilities that have not adopted a goal, or for which emissions data were not available to calculate stringency. We used CDP data to determine GHG goals and emissions data for 2021 where possible.

[9] Reduction target not in percentage.

Table E20. Scores for electricity utility GHG emissions goal stringency

City	Electric utility	Near adoption emissions per capita	Munis only (3 pts)
Seattle	Seattle City Light	N/A	3.0
Los Angeles	LADWP	4.87	3.0
Sacramento	SMUD	3.12	3.0
Knoxville	Knoxville Utilities Board	5.70	2.0
Nashville	Nashville Electric Service	5.70	2.0
Memphis	Memphis Light, Gas & Water	5.70	2.0
Riverside	City of Riverside (CA)	9.66	2.0
Austin	Austin Energy	19.09	1.0
San Antonio	CPS Energy (City of San Antonio)	12.77	1.0
Washington, DC	PEPCO	47.23	0.0
New Orleans	Entergy New Orleans, LLC	20.03	0.0
Orlando	Orlando Utilities Commission	22.55	0.0

Table E21. Scores for distributed energy resources

City	District energy integration (0.5 pt)	District energy equity (0.5 pt)	Microgrid integration (0.5 pt)	Microgrid equity (0.5 pt)	Community solar support (0.5 pt)	Community solar equity (0.5 pt)	Total (3 pts)
New York	0.5	0.5	0.5	0.5	0.5	0.5	3.0
San José	0.5	0.5	0.5	0.5	0.5	0.5	3.0
Denver	0.5	0.0	0.5	0.0	0.5	0.5	2.0
Austin	0.5	0.0	0.0	0.0	0.5	0.5	1.0.5
Saint Paul	0.5	0.0	0.0	0.0	0.5	0.5	1.0.5
Springfield	0.0	0.0	0.5	0.0	0.5	0.5	1.0.5
Aurora	0.0	0.0	0.0	0.0	0.5	0.5	1.0
Boston	0.5	0.0	0.5	0.0	0.0	0.0	1.0
Fresno	0.0	0.0	0.0	0.0	0.5	0.5	1.0

City	District energy integration (0.5 pt)	District energy equity (0.5 pt)	Microgrid integration (0.5 pt)	Microgrid equity (0.5 pt)	Community solar support (0.5 pt)	Community solar equity (0.5 pt)	Total (3 pts)
Hartford	0.0	0.0	0.5	0.0	0.5	0.0	1.0
Houston	0.0	0.0	0.0	0.0	0.5	0.5	1.0
Las Vegas	0.0	0.0	0.0	0.0	0.5	0.5	1.0
Los Angeles	0.0	0.0	0.0	0.0	0.5	0.5	1.0
Minneapolis	0.0	0.0	0.0	0.0	0.5	0.5	1.0
Nashville	0.0	0.0	0.0	0.0	0.5	0.5	1.0
New Orleans	0.0	0.0	0.0	0.0	0.5	0.5	1.0
Oakland	0.0	0.0	0.5	0.5	0.0	0.0	1.0
Pittsburgh	0.5	0.0	0.5	0.0	0.0	0.0	1.0
Reno	0.0	0.0	0.0	0.0	0.5	0.5	1.0
Sacramento	0.0	0.0	0.0	0.0	0.5	0.5	1.0
Seattle	0.0	0.0	0.5	0.0	0.5	0.0	1.0
Washington, DC	0.0	0.0	0.0	0.0	0.5	0.5	1.0
Akron	0.5	0.0	0.0	0.0	0.0	0.0	0.5
Albuquerque	0.0	0.0	0.0	0.0	0.0	0.5	0.5
Boise	0.5	0.0	0.0	0.0	0.0	0.0	0.5
Bridgeport	0.0	0.0	0.5	0.0	0.0	0.0	0.5
Charlotte	0.0	0.0	0.5	0.0	0.0	0.0	0.5
Chattanooga	0.0	0.0	0.5	0.0	0.0	0.0	0.5
Chicago	0.0	0.0	0.0	0.0	0.5	0.0	0.5
Cleveland	0.5	0.0	0.0	0.0	0.0	0.0	0.5
Columbus	0.0	0.0	0.5	0.0	0.0	0.0	0.5
Fayetteville	0.0	0.0	0.0	0.0	0.5	0.0	0.5
Indianapolis	0.5	0.0	0.0	0.0	0.0	0.0	0.5
Kansas City	0.0	0.0	0.0	0.0	0.5	0.0	0.5
Knoxville	0.0	0.0	0.0	0.0	0.5	0.0	0.5
Long Beach	0.0	0.0	0.5	0.0	0.0	0.0	0.5
Madison	0.0	0.0	0.0	0.0	0.5	0.0	0.5
Milwaukee	0.0	0.0	0.5	0.0	0.0	0.0	0.5
Orlando	0.0	0.0	0.0	0.0	0.5	0.0	0.5

City	District energy integration (0.5 pt)	District energy equity (0.5 pt)	Microgrid integration (0.5 pt)	Microgrid equity (0.5 pt)	Community solar support (0.5 pt)	Community solar equity (0.5 pt)	Total (3 pts)
Philadelphia	0.0	0.0	0.5	0.0	0.0	0.0	0.5
Phoenix	0.5	0.0	0.0	0.0	0.0	0.0	0.5
Portland	0.0	0.0	0.5	0.0	0.0	0.0	0.5
San Diego	0.0	0.0	0.5	0.0	0.0	0.0	0.5
St. Louis	0.0	0.0	0.0	0.0	0.5	0.0	0.5
St. Petersburg	0.0	0.0	0.0	0.0	0.5	0.0	0.5
Atlanta	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Baltimore	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Charleston	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chula Vista	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cincinnati	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dallas	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Des Moines	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detroit	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Durham	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Grand Rapids	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Honolulu	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lansing	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Louisville	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Memphis	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mesa	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Miami	0.0	0.0	0.0	0.0	0.0	0.0	0.0
New Haven	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Oxnard	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Providence	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Raleigh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Richmond	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Riverside	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rochester	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salt Lake City	0.0	0.0	0.0	0.0	0.0	0.0	0.0

City	District energy integration (0.5 pt)	District energy equity (0.5 pt)	Microgrid integration (0.5 pt)	Microgrid equity (0.5 pt)	Community solar support (0.5 pt)	Community solar equity (0.5 pt)	Total (3 pts)
San Antonio	0.0	0.0	0.0	0.0	0.0	0.0	0.0
San Francisco	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Spokane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tampa	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Toledo	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tucson	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table E22. Scores for municipal carbon-free electricity procurement and renewable energy incentive and financing programs

City	Municipal carbon-free electricity procurement (2 pts)	Renewable energy incentives (2 pts)	Low-income renewable energy incentives (2 pts)
Akron	0.0	0.0	0.0
Albuquerque	2.0	2.0	1.0
Atlanta	1.0	2.0	0.0
Aurora	0.0	1.0	0.0
Austin	0.0	2.0	0.0
Baltimore	2.0	2.0	1.0
Boise	0.0	1.0	0.0
Boston	0.0	2.0	0.0
Bridgeport	0.0	1.0	0.0
Charleston	1.0	0.0	0.0
Charlotte	0.0	2.0	0.0
Chattanooga	2.0	0.0	0.0
Chicago	0.0	2.0	0.0
Chula Vista	2.0	2.0	0.0
Cincinnati	2.0	2.0	0.0
Cleveland	0.0	2.0	1.0
Columbus	0.0	1.0	1.0
Dallas	0.0	2.0	0.0
Denver	2.0	2.0	1.0
Des Moines	1.0	0.0	0.0
Detroit	0.0	1.0	0.0
Durham	2.0	0.0	0.0
Fayetteville	2.0	0.0	0.0
Fresno	2.0	1.0	1.0
Grand Rapids	1.0	2.0	0.0
Hartford	2.0	2.0	1.0
Honolulu	1.0	1.0	1.0
Houston	2.0	2.0	0.0

City	Municipal carbon-free electricity procurement (2 pts)	Renewable energy incentives (2 pts)	Low-income renewable energy incentives (2 pts)
Indianapolis	0.0	0.0	0.0
Kansas City	2.0	2.0	0.0
Knoxville	1.0	2.0	1.0
Lansing	0.0	2.0	0.0
Las Vegas	2.0	1.0	0.0
Long Beach	1.0	0.0	0.0
Los Angeles	2.0	2.0	2.0
Louisville	2.0	2.0	0.0
Madison	2.0	2.0	2.0
Memphis	0.0	2.0	0.0
Mesa	1.0	0.0	0.0
Miami	0.0	2.0	0.0
Milwaukee	1.0	2.0	0.0
Minneapolis	2.0	2.0	1.0
Nashville	1.0	2.0	0.0
New Haven	2.0	2.0	0.0
New Orleans	0.0	2.0	0.0
New York	0.0	2.0	0.0
Oakland	1.0	2.0	0.0
Orlando	2.0	2.0	0.0
Oxnard	0.0	0.0	0.0
Philadelphia	0.0	2.0	1.0
Phoenix	2.0	2.0	1.0
Pittsburgh	0.0	2.0	0.0
Portland	0.0	2.0	1.0
Providence	2.0	1.0	0.0
Raleigh	0.0	1.0	0.0
Reno	0.0	1.0	0.0
Richmond	0.0	1.0	0.0
Riverside	2.0	2.0	0.0

City	Municipal carbon-free electricity procurement (2 pts)	Renewable energy incentives (2 pts)	Low-income renewable energy incentives (2 pts)
Rochester	2.0	2.0	0.0
Sacramento	2.0	2.0	0.0
Saint Paul	0.0	1.0	0.0
Salt Lake City	2.0	2.0	0.0
San Antonio	0.0	2.0	0.0
San Diego	1.0	2.0	1.0
San Francisco	2.0	2.0	1.0
San José	1.0	2.0	1.0
Seattle	0.0	2.0	0.0
Spokane	0.0	0.0	0.0
Springfield	0.0	0.0	0.0
St. Louis	0.0	1.0	0.0
St. Petersburg	1.0	2.0	0.0
Tampa	0.0	2.0	0.0
Toledo	0.0	1.0	0.0
Tucson	2.0	0.0	0.0
Washington, DC	2.0	2.0	1.0

Table E23. Scores for efficiency efforts in water services

City	Joint water–energy program (1 pt)	Water utility energy efficiency strategies (1 pt)	Water utility energy recovery and renewables (1 pt)	Total score (3 pts)
San Francisco	1.0	1.0	1.0	3.0
Seattle	1.0	1.0	1.0	3.0
Washington, DC	1.0	0.0	1.0	2.0
Minneapolis	1.0	0.0	1.0	2.0
Boston	1.0	1.0	1.0	3.0
New York	1.0	1.0	1.0	3.0
Denver	1.0	1.0	1.0	3.0
Los Angeles	1.0	1.0	1.0	3.0
Oakland	1.0	1.0	1.0	3.0
Portland	1.0	1.0	1.0	3.0
Chicago	1.0	1.0	1.0	3.0
Philadelphia	1.0	1.0	1.0	3.0
Austin	1.0	1.0	1.0	3.0
Atlanta	0.0	1.0	1.0	2.0
San Diego	1.0	1.0	1.0	3.0
Chula Vista	1.0	1.0	1.0	3.0
Hartford	1.0	1.0	1.0	3.0
Sacramento	1.0	0.0	1.0	2.0
Saint Paul	1.0	1.0	1.0	3.0
Pittsburgh	0.0	1.0	1.0	2.0
Orlando	1.0	1.0	1.0	3.0
Phoenix	0.0	1.0	1.0	2.0
Baltimore	1.0	0.0	1.0	2.0
Honolulu	1.0	0.0	1.0	2.0
Providence	0.0	1.0	1.0	2.0
Long Beach	0.0	1.0	1.0	2.0
Columbus	0.0	1.0	1.0	2.0
St. Louis	0.0	0.0	0.0	0.0

City	Joint water–energy program (1 pt)	Water utility energy efficiency strategies (1 pt)	Water utility energy recovery and renewables (1 pt)	Total score (3 pts)
Aurora	1.0	1.0	1.0	3.0
Albuquerque	1.0	1.0	1.0	3.0
Grand Rapids	0.0	1.0	1.0	2.0
Las Vegas	0.0	1.0	1.0	2.0
Houston	0.0	1.0	0.0	1.0
Salt Lake City	0.0	0.0	1.0	1.0
Kansas City	1.0	1.0	0.0	2.0
San Antonio	1.0	0.0	1.0	2.0
Cleveland	0.0	1.0	1.0	2.0
Madison	1.0	1.0	1.0	3.0
Riverside	1.0	1.0	1.0	3.0
Boise	1.0	1.0	1.0	3.0
Charlotte	0.0	1.0	1.0	2.0
Cincinnati	0.0	0.0	1.0	1.0
Dallas	1.0	0.0	1.0	2.0
Knoxville	1.0	1.0	1.0	3.0
Nashville	0.0	1.0	1.0	2.0
Fresno	1.0	1.0	1.0	3.0
Richmond	0.0	0.0	0.0	0.0
Miami	0.0	1.0	1.0	2.0
Springfield	0.0	0.0	0.0	0.0
Rochester	0.0	0.0	0.0	0.0
St. Petersburg	1.0	0.0	1.0	2.0
Milwaukee	0.0	1.0	1.0	2.0
New Haven	0.0	1.0	1.0	2.0
Louisville	0.0	1.0	1.0	2.0
Memphis	0.0	0.0	1.0	1.0
Detroit	0.0	0.0	1.0	1.0
Oxnard	1.0	0.0	0.0	1.0

City	Joint water–energy program (1 pt)	Water utility energy efficiency strategies (1 pt)	Water utility energy recovery and renewables (1 pt)	Total score (3 pts)
Reno	0.0	0.0	0.0	0.0
Indianapolis	1.0	0.0	0.0	1.0
Raleigh	0.0	1.0	1.0	2.0
Des Moines	0.0	1.0	1.0	2.0
New Orleans	0.0	1.0	1.0	2.0
Bridgeport	0.0	0.0	0.0	0.0
Mesa	1.0	0.0	0.0	1.0
Tucson	0.0	0.0	0.0	0.0
Toledo	1.0	0.0	0.0	1.0
Charleston	0.0	0.0	0.0	0.0
Tampa	0.0	0.0	0.0	0.0
Akron	0.0	0.0	1.0	1.0
San José	1.0	1.0	1.0	3.0
Chattanooga	1.0	1.0	1.0	3.0
Durham	0.0	1.0	0.0	1.0
Fayetteville	0.0	0.0	0.0	0.0
Lansing	0.0	1.0	0.0	1.0
Spokane	1.0	0.0	0.0	1.0

LOCAL GOVERNMENT OPERATIONS

Table E24. Scores for local government climate change mitigation and energy goals

City	Energy reduction goal (1 pt)	Carbon-free electricity goal stringency (1 pt)	Climate goal stringency (1 pt)	Climate goal progress (2 pts)	Total (5 pts)
Las Vegas	0.0	1.0	0.5	2.0	3.5
Portland	0.0	1.0	0.5	2.0	3.5
Washington, DC	0.5	1.0	0.0	2.0	3.5
Los Angeles	0.5	0.0	0.5	2.0	3.0
Seattle	1.0	1.0	0.5	0.0	2.5
Boise	1.0	0.0	1.0	0.0	2.0
Cleveland	0.0	0.0	0.0	2.0	2.0
Houston	0.0	1.0	1.0	0.0	2.0
Kansas City	0.0	1.0	1.0	0.0	2.0
Pittsburgh	1.0	1.0	0.0	0.0	2.0
Atlanta	0.0	1.0	0.5	0.0	1.5
Austin	0.0	1.0	0.5	0.0	1.5
Honolulu	0.0	0.5	1.0	0.0	1.5
Minneapolis	0.0	0.5	1.0	0.0	1.5
Oakland	0.0	1.0	0.5	0.0	1.5
Orlando	0.0	0.5	1.0	0.0	1.5
Grand Rapids	0.0	0.5	1.0	0.0	1.5
Charleston	0.0	0.0	1.0	0.0	1.0
Charlotte	0.0	0.0	1.0	0.0	1.0
Chula Vista	0.0	1.0	0.0	0.0	1.0
Cincinnati	1.0	0.0	0.0	0.0	1.0
Columbus	0.0	0.5	0.5	0.0	1.0
Denver	0.0	1.0	0.0	0.0	1.0
Madison	0.0	0.0	1.0	0.0	1.0
New Haven	0.0	1.0	0.0	0.0	1.0
Phoenix	0.5	0.0	0.5	0.0	1.0

City	Energy reduction goal (1 pt)	Carbon-free electricity goal stringency (1 pt)	Climate goal stringency (1 pt)	Climate goal progress (2 pts)	Total (5 pts)
Salt Lake City	0.0	0.5	0.5	0.0	1.0
San Diego	0.0	1.0	0.0	0.0	1.0
San Francisco	0.0	1.0	0.0	0.0	1.0
Tucson	0.0	0.0	1.0	0.0	1.0
San Antonio	0.0	0.0	0.5	0.0	0.5
Albuquerque	0.0	0.5	0.0	0.0	0.5
Baltimore	0.5	0.0	0.0	0.0	0.5
Boston	0.0	0.0	0.5	0.0	0.5
Dallas	0.0	0.0	0.5	0.0	0.5
Fayetteville	0.0	0.0	0.5	0.0	0.5
Knoxville	0.0	0.0	0.5	0.0	0.5
Memphis	0.0	0.0	0.5	0.0	0.5
Nashville	0.0	0.5	0.0	0.0	0.5
Philadelphia	0.0	0.5	0.0	0.0	0.5
Providence	0.0	0.0	0.5	0.0	0.5
Sacramento	0.0	0.0	0.5	0.0	0.5
St. Louis	0.0	0.0	0.5	0.0	0.5
Akron	0.0	0.0	0.0	0.0	0.0
Aurora	0.0	0.0	0.0	0.0	0.0
Bridgeport	0.0	0.0	0.0	0.0	0.0
Chattanooga	0.0	0.0	0.0	0.0	0.0
Chicago	0.0	0.0	0.0	0.0	0.0
Des Moines	0.0	0.0	0.0	0.0	0.0
Detroit	0.0	0.0	0.0	0.0	0.0
Durham	0.0	0.0	0.0	0.0	0.0
Fresno	0.0	0.0	0.0	0.0	0.0
Hartford	0.0	0.0	0.0	0.0	0.0
Indianapolis	0.0	0.0	0.0	0.0	0.0
Lansing	0.0	0.0	0.0	0.0	0.0

City	Energy reduction goal (1 pt)	Carbon-free electricity goal stringency (1 pt)	Climate goal stringency (1 pt)	Climate goal progress (2 pts)	Total (5 pts)
Long Beach	0.0	0.0	0.0	0.0	0.0
Louisville	0.0	0.0	0.0	0.0	0.0
Mesa	0.0	0.0	0.0	0.0	0.0
Miami	0.0	0.0	0.0	0.0	0.0
Milwaukee	0.0	0.0	0.0	0.0	0.0
New Orleans	0.0	0.0	0.0	0.0	0.0
New York	0.0	0.0	0.0	0.0	0.0
Oxnard	0.0	0.0	0.0	0.0	0.0
Raleigh	0.0	0.0	0.0	0.0	0.0
Reno	0.0	0.0	0.0	0.0	0.0
Richmond	0.0	0.0	0.0	0.0	0.0
Riverside	0.0	0.0	0.0	0.0	0.0
Rochester	0.0	0.0	0.0	0.0	0.0
Saint Paul	0.0	0.0	0.0	0.0	0.0
San José	0.0	0.0	0.0	0.0	0.0
Spokane	0.0	0.0	0.0	0.0	0.0
Springfield	0.0	0.0	0.0	0.0	0.0
St. Petersburg	0.0	0.0	0.0	0.0	0.0
Tampa	0.0	0.0	0.0	0.0	0.0
Toledo	0.0	0.0	0.0	0.0	0.0

Table E25. Scores for procurement and construction policies

City	Fleet procurement (1 pt)	Fleet composition (2 pts)	Lighting policy (1 pt)	Lighting composition (2 pts)	Existence of inclusive procurement process (2 pts)	Use of inclusive procurement (2 pts)	Disparity study and tracking (2 pts)	Actions to advance high-quality jobs (2 pts)	Total (14 pts)
Boston	1.0	2.0	1.0	2.0	1.0	2.0	1.0	1.0	11
Madison	0.0	2.0	1.0	0.0	2.0	2.0	2.0	2.0	11
Oakland	1.0	2.0	1.0	2.0	1.0	1.0	1.0	2.0	11
Seattle	1.0	2.0	0.0	2.0	2.0	2.0	0.0	2.0	11
Chicago	1.0	0.0	1.0	2.0	2.0	1.0	1.0	2.0	10
Portland	1.0	2.0	1.0	2.0	2.0	0.0	2.0	0.0	10
San Francisco	1.0	2.0	0.0	2.0	2.0	0.0	2.0	1.0	10
Columbus	1.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	9.0
Houston	1.0	0.0	0.0	2.0	1.0	2.0	2.0	1.0	9.0
New York	1.0	2.0	0.0	1.0	2.0	0.0	1.0	2.0	9.0
Pittsburgh	1.0	2.0	1.0	0.0	1.0	0.0	2.0	2.0	9.0
Indianapolis	1.0	0.0	1.0	2.0	2.0	0.0	2.0	0.0	8.0
Nashville	1.0	2.0	1.0	0.0	2.0	2.0	0.0	0.0	8.0
San Antonio	1.0	2.0	0.0	1.0	2.0	0.0	2.0	0.0	8.0
Atlanta	1.0	0.0	1.0	2.0	1.0	0.0	1.0	1.0	7.0
Baltimore	0.0	0.0	1.0	1.0	1.0	2.0	2.0	0.0	7.0
Cleveland	0.0	0.0	0.0	2.0	2.0	1.0	0.0	2.0	7.0
Denver	1.0	0.0	0.0	1.0	2.0	1.0	2.0	0.0	7.0

City	Fleet procurement (1 pt)	Fleet composition (2 pts)	Lighting policy (1 pt)	Lighting composition (2 pts)	Existence of inclusive procurement process (2 pts)	Use of inclusive procurement (2 pts)	Disparity study and tracking (2 pts)	Actions to advance high-quality jobs (2 pts)	Total (14 pts)
Charlotte	1.0	0.0	0.0	0.0	1.0	1.0	2.0	1.0	6.0
Cincinnati	1.0	0.0	0.0	0.0	2.0	1.0	0.0	2.0	6.0
Dallas	1.0	0.0	0.0	0.0	1.0	0.0	2.0	2.0	6.0
Knoxville	1.0	0.0	0.0	2.0	1.0	1.0	1.0	0.0	6.0
Los Angeles	1.0	2.0	0.0	2.0	0.0	0.0	0.0	1.0	6.0
New Orleans	1.0	0.0	0.0	1.0	1.0	0.0	2.0	1.0	6.0
Akron	0.0	0.0	0.0	0.0	1.0	0.0	2.0	2.0	5.0
Durham	1.0	0.0	0.0	2.0	2.0	0.0	0.0	0.0	5.0
Grand Rapids	0.0	0.0	1.0	1.0	2.0	0.0	0.0	1.0	5.0
Honolulu	1.0	0.0	1.0	2.0	0.0	0.0	0.0	1.0	5.0
Kansas City	1.0	0.0	0.0	0.0	2.0	0.0	1.0	1.0	5.0
Long Beach	1.0	2.0	0.0	2.0	0.0	0.0	0.0	0.0	5.0
New Haven	0.0	0.0	1.0	2.0	1.0	0.0	0.0	1.0	5.0
Philadelphia	1.0	2.0	0.0	0.0	1.0	0.0	1.0	0.0	5.0
San José	1.0	2.0	0.0	2.0	0.0	0.0	0.0	0.0	5.0
St. Petersburg	1.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	5.0
Washington	1.0	2.0	0.0	0.0	0.0	0.0	2.0	0.0	5.0
Albuquerque	1.0	0.0	1.0	2.0	0.0	0.0	0.0	0.0	4.0
Chula Vista	1.0	0.0	1.0	2.0	0.0	0.0	0.0	0.0	4.0

City	Fleet procurement (1 pt)	Fleet composition (2 pts)	Lighting policy (1 pt)	Lighting composition (2 pts)	Existence of inclusive procurement process (2 pts)	Use of inclusive procurement (2 pts)	Disparity study and tracking (2 pts)	Actions to advance high-quality jobs (2 pts)	Total (14 pts)
Detroit	1.0	0.0	0.0	2.0	0.0	0.0	0.0	1.0	4.0
Hartford	0.0	0.0	1.0	2.0	0.0	0.0	0.0	1.0	4.0
Memphis	0.0	0.0	0.0	0.0	2.0	0.0	2.0	0.0	4.0
Miami	1.0	0.0	0.0	2.0	0.0	0.0	0.0	1.0	4.0
Orlando	0.0	0.0	1.0	2.0	1.0	0.0	0.0	0.0	4.0
Phoenix	1.0	0.0	1.0	2.0	0.0	0.0	0.0	0.0	4.0
Providence	1.0	0.0	0.0	2.0	1.0	0.0	0.0	0.0	4.0
Raleigh	1.0	0.0	0.0	2.0	0.0	0.0	1.0	0.0	4.0
Riverside	1.0	0.0	1.0	2.0	0.0	0.0	0.0	0.0	4.0
Sacramento	1.0	2.0	0.0	0.0	0.0	0.0	0.0	1.0	4.0
Saint Paul	1.0	0.0	0.0	0.0	1.0	0.0	0.0	2.0	4.0
San Diego	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	4.0
Toledo	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	4.0
Austin	1.0	0.0	1.0	1.0	0.0	0.0	0.0	0.0	3.0
Lansing	1.0	0.0	1.0	1.0	0.0	0.0	0.0	0.0	3.0
Las Vegas	0.0	0.0	1.0	2.0	0.0	0.0	0.0	0.0	3.0
Milwaukee	1.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	3.0
Minneapolis	1.0	0.0	1.0	1.0	0.0	0.0	0.0	0.0	3.0
Rochester	0.0	0.0	0.0	1.0	2.0	0.0	0.0	0.0	3.0

City	Fleet procurement (1 pt)	Fleet composition (2 pts)	Lighting policy (1 pt)	Lighting composition (2 pts)	Existence of inclusive procurement process (2 pts)	Use of inclusive procurement (2 pts)	Disparity study and tracking (2 pts)	Actions to advance high-quality jobs (2 pts)	Total (14 pts)
Salt Lake City	1.0	0.0	1.0	1.0	0.0	0.0	0.0	0.0	3.0
Boise	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	2.0
Bridgeport	0.0	0.0	0.0	1.0	1.0	0.0	0.0	0.0	2.0
Chattanooga	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	2.0
Fresno	0.0	0.0	1.0	0.0	0.0	0.0	0.0	1.0	2.0
Mesa	0.0	0.0	1.0	1.0	0.0	0.0	0.0	0.0	2.0
Spokane	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	2.0
St. Louis	1.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	2.0
Tucson	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	2.0
Aurora	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0
Des Moines	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
Fayetteville	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0
Louisville	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0
Oxnard	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
Richmond	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0
Tampa	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0
Charleston	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reno	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Springfield	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table E26. Scores for asset management

City	Benchmarking (1 pt)	Retrofit strategy (2 pts)	Retrofit funding (2 pts)	Transportation benefit (1 pt)	Total (6 pts)
Boston	1.0	2.0	2.0	1.0	6.0
Charlotte	1.0	2.0	2.0	1.0	6.0
Madison	1.0	2.0	2.0	1.0	6.0
Nashville	1.0	2.0	2.0	1.0	6.0
San Antonio	1.0	2.0	2.0	1.0	6.0
Denver	1.0	2.0	2.0	0.5	5.5
Orlando	1.0	2.0	2.0	0.5	5.5
Philadelphia	1.0	2.0	2.0	0.5	5.5
Portland	1.0	2.0	2.0	0.5	5.5
Saint Paul	1.0	2.0	2.0	0.5	5.5
San Francisco	1.0	2.0	2.0	0.5	5.5
Seattle	1.0	2.0	2.0	0.5	5.5
Albuquerque	1.0	2.0	2.0	0.0	5.5
Boise	1.0	1.0	2.0	1.0	5.5
Chula Vista	1.0	2.0	2.0	0.0	5.5
New Orleans	1.0	2.0	2.0	0.0	5.5
Atlanta	1.0	1.0	2.0	0.5	4.5
Las Vegas	1.0	1.0	2.0	0.5	4.5
New York	1.0	1.0	2.0	0.5	4.5
Oakland	1.0	1.0	2.0	0.5	4.5
Sacramento	1.0	1.0	2.0	0.5	4.5
Hartford	1.0	1.0	2.0	0.0	4.0
Houston	0.0	1.0	2.0	1.0	4.0
Knoxville	1.0	0.0	2.0	1.0	4.0
Phoenix	1.0	0.0	2.0	1.0	4.0
San Diego	0.0	1.0	2.0	1.0	4.0
Chicago	1.0	0.0	2.0	0.5	3.5
Cincinnati	1.0	2.0	0.0	0.5	3.5

City	Benchmarking (1 pt)	Retrofit strategy (2 pts)	Retrofit funding (2 pts)	Transportation benefit (1 pt)	Total (6 pts)
Honolulu	1.0	2.0	0.0	0.5	3.5
Long Beach	1.0	2.0	0.0	0.5	3.5
Milwaukee	1.0	0.0	2.0	0.5	3.5
Minneapolis	1.0	2.0	0.0	0.5	3.5
Pittsburgh	1.0	2.0	0.0	0.5	3.5
St. Petersburg	1.0	0.0	2.0	0.5	3.5
Charleston	0.0	0.0	2.0	1.0	3.0
Dallas	0.0	1.0	2.0	0.0	3.0
Durham	1.0	2.0	0.0	0.0	3.0
Grand Rapids	1.0	2.0	0.0	0.0	3.0
Reno	1.0	2.0	0.0	0.0	3.0
Salt Lake City	1.0	2.0	0.0	0.0	3.0
San José	1.0	1.0	0.0	1.0	3.0
Washington, DC	1.0	1.0	0.0	1.0	3.0
Cleveland	1.0	1.0	0.0	0.5	2.5
Columbus	1.0	1.0	0.0	0.5	2.5
Los Angeles	1.0	1.0	0.0	0.5	2.5
Mesa	1.0	1.0	0.0	0.5	2.5
Baltimore	0.0	2.0	0.0	0.0	2.0
Louisville	1.0	1.0	0.0	0.0	2.0
Providence	1.0	1.0	0.0	0.0	2.0
Raleigh	1.0	1.0	0.0	0.0	2.0
Springfield	0.0	0.0	2.0	0.0	2.0
Kansas City	1.0	0.0	0.0	0.5	1.5
Memphis	1.0	0.0	0.0	0.5	1.5
Rochester	1.0	0.0	0.0	0.5	1.5
Austin	1.0	0.0	0.0	0.0	1.0
Bridgeport	1.0	0.0	0.0	0.0	1.0
Richmond	1.0	0.0	0.0	0.0	1.0
Spokane	0.0	0.0	0.0	1.0	1.0

City	Benchmarking (1 pt)	Retrofit strategy (2 pts)	Retrofit funding (2 pts)	Transportation benefit (1 pt)	Total (6 pts)
Des Moines	0.0	0.0	0.0	0.5	0.5
Detroit	0.0	0.0	0.0	0.5	0.5
Indianapolis	0.0	0.0	0.0	0.5	0.5
Akron	0.0	0.0	0.0	0.0	0.0
Aurora	0.0	0.0	0.0	0.0	0.0
Chattanooga	0.0	0.0	0.0	0.0	0.0
Fayetteville	0.0	0.0	0.0	0.0	0.0
Fresno	0.0	0.0	0.0	0.0	0.0
Lansing	0.0	0.0	0.0	0.0	0.0
Miami	0.0	0.0	0.0	0.0	0.0
New Haven	0.0	0.0	0.0	0.0	0.0
Oxnard	0.0	0.0	0.0	0.0	0.0
Riverside	0.0	0.0	0.0	0.0	0.0
St. Louis	0.0	0.0	0.0	0.0	0.0
Tampa	0.0	0.0	0.0	0.0	0.0
Toledo	0.0	0.0	0.0	0.0	0.0
Tucson	0.0	0.0	0.0	0.0	0.0

Appendix F. Additional Tables on Policies and Results

COMMUNITY-WIDE INITIATIVES

Table F1. Community-wide goals to reduce energy use, increase carbon-free electricity, and mitigate climate change.

City	Energy reduction goal	Carbon-free electricity goal	Annual carbon-free kWh per household targeted	Progress toward carbon-free electricity goal	Climate change mitigation goal	Annual % decrease targeted	Projected progress toward GHG goal
Akron	None	None			Reduce community-wide GHG emissions 20% by 2025, using a 2005 baseline	0.5%	
Albuquerque	None	None			Reduce community-wide GHG emissions 26% by 2025, using a 2017 baseline	5.5%	
Atlanta	None	Generate 100% clean energy by 2035	2,023		Reduce community-wide GHG emissions 40% by 2030, using a 2009 baseline	3%	35.8%
Aurora	None	None			Reduce community-wide GHG emissions 10% by 2025, using a 2007 baseline	1.9%	100%
Austin	Reduce natural gas emissions 30% in existing building stock	Generate 55% renewable electricity by 2025	266	On track	Reduce community-wide GHG emissions 75% by 2030, using a 2019 baseline	7.1%	52.4%

City	Energy reduction goal	Carbon-free electricity goal	Annual carbon-free kWh per household targeted	Progress toward carbon-free electricity goal	Climate change mitigation goal	Annual % decrease targeted	Projected progress toward GHG goal
Baltimore	None	None			Reduce community-wide GHG emissions 30% by 2025, using a 2007 baseline	2.8%	0%
Boise	Electrify building heating 100% by 2050	Generate 100% renewable electricity by 2035	508		Reduce community-wide GHG emissions 100% by 2050	3.5%	
Boston	None	None			Reduce community-wide GHG emissions 50% by 2030, using a 2005 baseline	3.3%	90%
Bridgeport	None	None			Reduce community-wide GHG emissions 30% by 2030, using a 2007 baseline	1.5%	
Charleston	None	None			Reduce community-wide GHG emissions 56% by 2030, using a 2018 baseline	5.3%	
Charlotte	None	None			Reduce community-wide GHG emissions by 2 tons CO_2e per capita by 2050, using a 2015 baseline	2.5%	0%

City	Energy reduction goal	Carbon-free electricity goal	Annual carbon-free kWh per household targeted	Progress toward carbon-free electricity goal	Climate change mitigation goal	Annual % decrease targeted	Projected progress toward GHG goal
Chattanooga	None	None			Reduce community-wide GHG emissions 100% by 2050	3.1%	
Chicago	Electrify 30% of total existing residential buildings, 20% of total existing industrial buildings, 10% of total existing commercial buildings by 2035	Generate 100% renewable energy by 2035	1,069		Reduce community-wide GHG emissions 26% by 2025, using a 2005 baseline	0.9%	100%
Chula Vista	Retrofit 20% of single-family and multifamily homes and 20% of commercial building floor area to reduce energy use by 50% by 2035	Generate 100% renewable electricity by 2035	17		Reduce community-wide GHG emissions 57% by 2030, using a 2018 baseline	5.2%	20.8%
Cincinnati	Electrify 20,000 households by 2030	Generate 40% renewable energy by 2030	450		Reduce community-wide GHG emissions 40% by 2028, using a 2006 baseline	1.9%	100%

City	Energy reduction goal	Carbon-free electricity goal	Annual carbon-free kWh per household targeted	Progress toward carbon-free electricity goal	Climate change mitigation goal	Annual % decrease targeted	Projected progress toward GHG goal
Cleveland	Reduce residential and commercial energy use 50% and industrial energy use 30% by 2030, using a 2010 baseline	Generate 100% renewable electricity by 2050	689		Reduce community-wide GHG emissions 40% by 2030, using a 2010 baseline	1.9%	100%
Columbus	Reduce commercial energy use by 15% and residential energy use by 20% by 2030, using a 2013 baseline	Generate 100% renewable electricity by 2050	460		Reduce community-wide GHG emissions 45% by 2030, using a 2013 baseline	5%	72.8%
Dallas	None	None			Reduce GHG emissions 43% by 2030, using a 2015 baseline	3.1%	
Dayton	None	Generate 100% renewable electricity by 2040	1,217		None		
Denver	Reduce building energy use 30% by 2030	Generate 100% renewable electricity by 2030	1,210		Reduce community-wide GHG emissions 30% by 2025, using a 2005 baseline	4.6%	100%
Des Moines	None	Generate 100% renewable electricity by 2035	575		Reduce community-wide GHG emissions 45% by 2030, using a 2010 baseline	4.3%	0%

City	Energy reduction goal	Carbon-free electricity goal	Annual carbon-free kWh per household targeted	Progress toward carbon-free electricity goal	Climate change mitigation goal	Annual % decrease targeted	Projected progress toward GHG goal
Detroit	Reduce average industrial and commercial energy consumption per square foot 10% by 2024, using a 2016 baseline	Increase solar generation capacity to 6.6 MW by 2024	3		Reduce community-wide GHG emissions 30% by 2025, using a 2012 baseline	1.6%	
Durham	None	None			Reduce community-wide GHG emissions 30% by 2030, using a 2005 baseline	1.9%	
Fayetteville	Reduce building energy use 3% annually	Generate 50% renewable energy by 2030			Reduce community-wide GHG emissions 40% by 2030, using a 2010 baseline	3.9%	
Fresno	None	Generate 100% renewable electricity by 2050	80		Reduce community-wide GHG emissions 80% by 2050, using a 1990 baseline	2.1%	
Grand Rapids	None	None			Reduce community-wide GHG emissions 62.8% per capita by 2030, using a 2019 baseline	5.7%	

City	Energy reduction goal	Carbon-free electricity goal	Annual carbon-free kWh per household targeted	Progress toward carbon-free electricity goal	Climate change mitigation goal	Annual % decrease targeted	Projected progress toward GHG goal
Hartford	None	Increase renewable energy capacity to 4 MW by 2025	6		Reduce community-wide GHG emissions 45% by 2030, using a 2001 baseline	3.5%	
Honolulu	None	Generate 100% renewable energy by 2045	634	On track	Reduce community-wide GHG emissions 45% by 2025, using a 2015 baseline	6.8%	0%
Houston	None	Install 5 million MWh of rooftop and community solar by 2050	151		Reduce community-wide GHG emissions 40% by 2030, using a 2014 baseline	4.6%	
Indianapolis	None	Generate 20% renewable energy by 2025	384		Reduce community-wide per capita GHG emissions 62.8% by 2030, using a 2016 baseline	4.65%	
Kansas City	Reduce community-wide energy use 50% by 2050, using a 2008 baseline	Generate 50% renewable energy by 2050	330		Reduce community-wide GHG emissions 30% by 2025, using a 2000 baseline	2.2%	100%
Knoxville	None	None			Reduce community-wide GHG emissions 80% by 2050, using a 2005 baseline	2.7%	100%

City	Energy reduction goal	Carbon-free electricity goal	Annual carbon-free kWh per household targeted	Progress toward carbon-free electricity goal	Climate change mitigation goal	Annual % decrease targeted	Projected progress toward GHG goal
Lansing	None	None			Reduce community-wide GHG emissions 59% by 2030, using a 2019 baseline	5.2%	
Las Vegas	Reduce regional energy consumption 80% by 2050, using a 2019 baseline	Generate 50% renewable electricity by 2030	453		Reduce community-wide GHG emissions 28% by 2025, using a 2019 baseline	5.5%	
Long Beach	None	None			Reduce community-wide GHG emissions to 3.04 MTCO2e per capita by 2030	2.6%	
Los Angeles	Reduce the energy use intensity of all buildings 22% by 2025, using a 2015 baseline	Generate 55% renewable electricity by 2025	571		Reduce community-wide GHG emissions 50% by 2025, using a 1990 baseline	4.4%	100%
Louisville	Reduce community-wide energy use 25% per capita by 2025, using a 2012 baseline	Generate 100% clean energy by 2040	1,402		Reduce community-wide GHG emissions 80% by 2050, using a 2016 baseline	2.5%	
Madison	Reduce community-wide energy use 50% per capita by 2030, using a 2008 baseline	Generate 25% clean energy by 2025	319		Reduce community-wide GHG emissions 80% by 2050, using a 2010 baseline	2.2%	0%

City	Energy reduction goal	Carbon-free electricity goal	Annual carbon-free kWh per household targeted	Progress toward carbon-free electricity goal	Climate change mitigation goal	Annual % decrease targeted	Projected progress toward GHG goal
Memphis	None	Generate 80% carbon-free energy by 2035	661		Reduce community-wide GHG emissions 51% by 2035, using a 2016 baseline	2.9%	
Mesa	None	Generate 100% renewable electricity by 2050	943		Reduce community-wide GHG emissions 100% by 2050, using a 2018 baseline	3.1%	
Miami	Reduce onsite natural gas consumption 35% by 2035, using a 2018 baseline	Generate 100% renewable energy by 2035	1,207		Reduce community-wide GHG emissions 60% by 2035, using a 2018 baseline	4.2%	89.6%
Milwaukee	None	None			Reduce community-wide GHG emissions 45% by 2030, using a 2018 baseline	3.8%	
Minneapolis	Improve energy efficiency of commercial and residential buildings by 20% and 15%, respectively, by 2025 relative to a growth baseline	Generate 100% renewable energy by 2030	1,253		Reduce community-wide GHG emissions 100% by 2050	2.7%	100%

City	Energy reduction goal	Carbon-free electricity goal	Annual carbon-free kWh per household targeted	Progress toward carbon-free electricity goal	Climate change mitigation goal	Annual % decrease targeted	Projected progress toward GHG goal
Nashville	None	None			Reduce community-wide GHG emissions 80% by 2050, using a 2014 baseline	2.7%	
New Haven	None	None			Reduce community-wide GHG emissions 55% by 2030, using a 1999 baseline	2.9%	65%
New Orleans	Reduce community-wide energy use 3.3% annually through 2030	Generate 100% low-carbon electricity by 2030	716		Reduce community-wide GHG emissions 50% by 2035, using a 2014 baseline	2.4%	0%
New York	None	Generate 100% carbon-free electricity by 2050	332		Reduce community-wide GHG emissions 30% by 2025, using a 2005 baseline	1.8%	17.1%
Oakland	Reduce natural gas use 100% by 2040	Generates 90% or more of electricity from carbon-free sources			Reduce community-wide GHG emissions 56% by 2030, using a 2005 baseline	3.8 %	100%
Orlando	Reduce community-wide energy use 25% by 2040, using a 2010 baseline	Generate 100% renewable electricity by 2050	855		Reduce community-wide GHG emissions 90% by 2040, using a 2007 baseline	3.4%	100%

City	Energy reduction goal	Carbon-free electricity goal	Annual carbon-free kWh per household targeted	Progress toward carbon-free electricity goal	Climate change mitigation goal	Annual % decrease targeted	Projected progress toward GHG goal
Oxnard	None	None			Reduce community-wide GHG emissions 40% by 2030, using a 2010 baseline	2.9%	
Philadelphia	None	Generate 100% carbon-free electricity by 2050	340		Reduce community-wide GHG emissions 100% by 2050, using a 2006 baseline	2.9%	100%
Phoenix	None	Generate 15% renewable energy by 2025	203		Reduce community-wide GHG emissions 30% by 2025, using a 2012 baseline	4.1%	100%
Pittsburgh	Reduce community-wide energy use 50% by 2030, using a 2003 baseline	Generate 50% renewable energy by 2030	408		Reduce community-wide GHG emissions 20% by 2023, using a 2003 baseline	2.5%	0%
Portland	Reduce energy use in buildings built before 2010 25% by 2030	Generate 100% renewable electricity by 2035	1,315		Reduce community-wide GHG emissions 50% by 2030, using a 1990 baseline	4.5%	27.3%
Providence	None	Generate 50% carbon-free electricity by 2035	120		Reduce community-wide GHG emissions 100% by 2050, using a 2015 baseline	2.9%	36.3%

City	Energy reduction goal	Carbon-free electricity goal	Annual carbon-free kWh per household targeted	Progress toward carbon-free electricity goal	Climate change mitigation goal	Annual % decrease targeted	Projected progress toward GHG goal
Raleigh	None	None			Reduce community-wide GHG emissions 80% by 2050, using a 2007 baseline	2.5%	
Reno	Increase commercial, industrial, and multifamily efficiency 20% by 2025	Generate 50% renewable electricity by 2030	413		Reduce community-wide GHG emissions 28% by 2025, using a 2008 baseline	3.3%	0%
Richmond	None	None			Reduce community-wide GHG emissions 45% by 2030, using a 2008 baseline	2.6%	100%
Riverside	Reduce community-wide energy use 1% annually, using a 2004 baseline	Generate 100% renewable electricity by 2040	547	On track	Reduce community-wide GHG emissions 49% by 2035, using a 2007 baseline	2.1%	
Rochester	None	None			Reduce community-wide GHG emissions 40% by 2030, using a 2010 baseline	1.8%	
Sacramento	Reduce community-wide energy use 25% by 2030, using a 2005 baseline	Generate 100% renewable electricity by 2030	614		Reduce community-wide GHG emissions 49% by 2035, using a 2005 baseline	2.2%	77%

City	Energy reduction goal	Carbon-free electricity goal	Annual carbon-free kWh per household targeted	Progress toward carbon-free electricity goal	Climate change mitigation goal	Annual % decrease targeted	Projected progress toward GHG goal
Salt Lake City	None	Generate 100% renewable electricity by 2032	2,112		Reduce community-wide GHG emissions 50% by 2030, using a 2009 baseline	3.6%	27.5%
San Antonio	Reduce community-wide energy use from 116 kBtu per square foot to 90 kBtu per square foot by 2040	Generate 50% renewable electricity by 2040	474	On track	Reduce community-wide GHG emissions 41% by 2030, using a 2016 baseline	3.8%	0%
San Diego	Reduce natural gas use in residential and commercial buildings 45% by 2030	Generate 100% renewable energy by 2035	510		Reduce community-wide GHG emissions 61% by 2030, using a 2019 baseline	4%	100%
San Francisco	None	Generate 100% renewable electricity by 2030	465		Reduce community-wide GHG emissions 40% by 2025, using a 1990 baseline	2.6%	100%
San José	Reduce per household energy use 50% by 2022, using a 2008 baseline; increase number of all-electric homes to 47% by 2030	Generate more than 90% of electricity from carbon-free energy sources, achieving 2021 goal			Reduce community-wide GHG emissions 36% by 2030, using a 1990 baseline	3.4%	100%

City	Energy reduction goal	Carbon-free electricity goal	Annual carbon-free kWh per household targeted	Progress toward carbon-free electricity goal	Climate change mitigation goal	Annual % decrease targeted	Projected progress toward GHG goal
Seattle	Reduce commercial energy use 10% and residential use 20% by 2030, using a 2008 baseline	Generate more than 90% of electricity from renewable energy sources			Reduce community-wide GHG emissions 58% by 2030, using a 2008 baseline	3.92%	66.6%
Spokane	None	None			Reduce community-wide GHG emissions 45% by 2030, using a 2016 baseline	3.6%	
Springfield	None	Install solar to generate 10% of energy by 2030	238		Reduce community-wide GHG emissions 80% by 2050, using a 2015 baseline	2.3%	
St. Louis	None	Generate 100% renewable electricity by 2035	1,466		Reduce community-wide GHG emissions 100% by 2050, using a 2005 baseline	3.1%	97%
Saint Paul	Reduce overall building energy consumption 50% by 2050	Install 50 MW of residential and 150 MW of commercial solar by 2030.	298		Reduce community-wide GHG emissions 50% below a 2030 business-as-usual projection	5.7%	
St. Petersburg	None	Generate 100% renewable electricity by 2035	1,295		Reduce community-wide GHG emissions 80% by 2050, using a 2016 baseline	2.5%	

City	Energy reduction goal	Carbon-free electricity goal	Annual carbon-free kWh per household targeted	Progress toward carbon-free electricity goal	Climate change mitigation goal	Annual % decrease targeted	Projected progress toward GHG goal
Tampa	None	Install renewable energy systems in 20% of existing residential and commercial buildings by 2025			Reduce community-wide GHG emissions to 1990 levels by 2025	2%	58.8%
Toledo	None	None			Reduce community-wide GHG emissions 40% by 2030, using a 2012 baseline	2.2%	
Tucson	None	None			Reduce community-wide GHG emissions 100% by 2045	3.9%	
Washington, DC	Reduce community-wide energy use 50% by 2032, using a 2012 baseline	Generate 100% renewable energy by 2032	2,397		Reduce community-wide GHG emissions 45% by 2025, using a 2006 baseline	4.3%	52.6%

Sources: We collected information regarding city goals from city ordinances; mayoral executive orders; and city climate action, sustainability, energy, resilience, and comprehensive community plans. Targeted changes in energy use were calculated using data from these sources as well as online data portals, GHG emissions inventories, and correspondence with city staff. Targeted and projected changes in GHG emissions were calculated using city greenhouse gas emissions inventories. Targeted changes in carbon-free electricity generation were calculated using data from city GHG emissions inventories, online data portals, correspondence with city staff, and utility public reporting.

Table F2. Community-wide equity-driven clean energy planning strategies

City	Equity-driven community engagement	Equity-driven decision making	Accountability to equity
Albuquerque	None	City has created a Climate Action Plan Task Force consisting of representatives from marginalized communities and community-based organizations.	Resolution 20-75 requires the city to operationalize equity in all decision-making processes and use racial equity tool kits to understand the distribution of benefits and burdens of policies, programs, and budgeting decisions.
Atlanta	None	None	City adopted a goal to reduce energy burdens for 10% of households with tracking metrics focused on those with low incomes.
Austin	None	City created a steering committee to enable marginalized community residents and community-based organizations to lead the development of the Climate Equity Plan.	City used an equity tool to develop its Climate Equity Plan.
Baltimore	None	None	Baltimore's Equity Assessment Program requires city agencies to assess existing and proposed policies and practices for disparate outcomes based on race, gender, or income.
Boston	City held engagement sessions in disadvantaged communities for its building performance standard policy and community choice electricity program.	None	Resilient Boston plan sets specific goals and indicators to improve transportation access and increase proximity to parks for marginalized residents.
Charleston	None	None	Charleston tracks metrics related to extreme heat and health.

City	Equity-driven community engagement	Equity-driven decision making	Accountability to equity
Charlotte	Charlotte's Corridors of Opportunity initiative focuses on six areas that have experienced historic disinvestment. Each corridor has co-created a playbook that includes ways to better the corridors via community engagement, sustainability and resilience, and economic development.	None	City requires departments to use an equity lens to justify budget enhancements. Departments must analyze which groups would benefit from and be burdened by the enhancements.
Chicago	None	None	Resilient Chicago plan includes specific goals and indicators to improve transit service to underserved areas and install efficient lighting in low-income communities.
Chula Vista	None	None	The City Council adopted the Climate Equity Index, which must be updated every five years. The index uses 39 indicators to analyze each of the city's census tracts and assigns each tract a climate equity index score.
Cincinnati	City held Green Cincinnati Plan development meetings in Spanish and in communities of color.	None	City adopted a goal to reduce household energy burdens 10% by 2023.
Cleveland	None	None	City uses a racial equity tool to plan implementation for its climate action plan.
Dallas	City offered transportation reimbursement to residents attending community meetings on the Comprehensive Environmental & Climate Action Plan.	None	Resilient Dallas adopted specific time-limited goals and metrics to track how energy efficiency and climate action initiatives are achieving positive environmental justice and social equity outcomes.

City	Equity-driven community engagement	Equity-driven decision making	Accountability to equity
Denver	The city's Climate Task Force promoted access to Wi-Fi for community to attend virtual community meetings and provided direct phone support. Half of these efforts were in Spanish.	None	The Climate Protection Fund has a goal to spend at least 50% of its budget on equity-related projects.
Des Moines	None	None	The city requires city staff and individual departments to use its equity toolkit to evaluate existing and proposed policies and programs.
Detroit	The city hosted four town hall meetings and seven focus groups with populations that are historically underrepresented in planning processes.	None	None
Grand Rapids	None	Members of the Community Collaboration on Climate Change represent disadvantaged communities.	None
Hartford	The city's Climate Action Meetings focused on implementation of its Climate Action Plan. These meetings were co-hosted by local grassroots nonprofits and were held in neighborhoods across the city, after traditional working hours. They were intentionally family-friendly to attract as many residents as possible.	None	The city uses the Sustainable Connecticut Equity Toolkit to inform how events are held and work is conducted.

City	Equity-driven community engagement	Equity-driven decision making	Accountability to equity
Honolulu	None	None	Pillar I of the city's resilience strategy has several specific time-limited goals focused on energy and housing affordability. Pillar IV has several goals related to city coordination with marginalized communities. City staff hold weekly meetings to report on progress toward these goals.
Houston	The Complete Communities initiative developed unique planning documents for 10 under-resourced neighborhoods. The city held multiple community meetings in each neighborhood to identify goals, projects, and partners.	None	None
Indianapolis	In planning Thrive Indianapolis, the city held specialized focus groups and training for returning citizens, veterans, and low-income and homeless populations in convenient locations.	None	None
Kansas City	While drafting the Climate Preparedness and Response Plan, the city conducted engagement in disadvantaged communities.	None	None
Knoxville	The Equity Working Group conducted direct outreach, surveying community members to inform its discussions and recommendations. This outreach targeted Knoxville's lower-income zip codes.	City created the Climate Council Equity Working Group, which consists mostly of representatives from community-based organizations serving marginalized communities.	None

City	Equity-driven community engagement	Equity-driven decision making	Accountability to equity
Las Vegas	The city conducted special area planning efforts to ensure public engagement with all groups in East Las Vegas, a majority Latino area of Las Vegas. The city conducted engagement in both English and Spanish.	None	None
Long Beach	In the city's Climate Action and Adaptation Plan outreach process, there has been direct outreach in communities that are home to marginalized groups. In addition to English, the outreach has also been conducted in Spanish and Khmer.	None	None
Los Angeles	City conducted focus groups in disadvantaged communities to inform its building decarbonization efforts.	City has created formal partnerships with organizations in marginalized communities to apply for grants to support climate action in south LA and the Watts neighborhood.	The LA Green New Deal adopted specific time-limited goals to track how energy efficiency and climate action initiatives are achieving positive environmental justice outcomes.

City	Equity-driven community engagement	Equity-driven decision making	Accountability to equity
Miami	Marginalized community residents were invited to a series of community meetings to get their input on what issues and initiatives should be prioritized in the Miami Forever Climate Ready strategy. Each of the eight workshops had information specific to the neighborhood where it took place. Light bites and childcare were provided. Meetings had in-person translation services available in Spanish and Haitian Creole.	None	None
Milwaukee	None	Council Resolution 190445 established the Climate and Economic Equity Task Force. The task force is composed mostly of members of marginalized communities and staff from the community-based organizations serving them.	None
Minneapolis	Green Zone Task Forces develop and lead outreach work plans to engage community members in planning their initiatives.	City has created community driven Northern and Southside Green Zones. Residents of these communities sit on task forces that advise the City Council and mayor on implementation and evaluation of their climate action work plans, which were also developed by community members.	Minneapolis requires city staff to complete a racial equity impact analysis for new policies, programs, and budgeting decisions. The city and Green Zone Task Forces track numerous indicators to monitor the outcomes of sustainability initiatives that serve the two zones. Additionally, the Minneapolis Division of Race and Equity is charged with directing departments to create equity goals and include them in annual staff evaluations.

City	Equity-driven community engagement	Equity-driven decision making	Accountability to equity
Nashville	None	None	The city's annual budgeting process requires each Metro department to complete a budget equity evaluation that documents how department expenses and activities will further diversity, equity, and inclusion throughout their department and the community.
New Orleans	The city launched the Climate Equity Project in 2018, an extensive community outreach strategy to gather marginalized resident input on how climate change impacts New Orleanians at the neighborhood level. An oversight committee consisting of subject matter experts and community leaders incorporated the findings of these meetings into a summary document listing recommendations on energy, waste, transportation, and culture/workforce issues.	None	None
New York	None	New York City's Environmental Justice Advisory Board consists of residents of environmental justice communities and experts from environmental justice groups. The board is conducting research and will create a citywide environmental justice plan.	Executive Order 45 of 2019 requires agencies to report annually on key equity indicators.

City	Equity-driven community engagement	Equity-driven decision making	Accountability to equity
Oakland	The city held community-wide town hall meetings to receive in-depth community feedback on the draft Equitable Climate Action Plan. More than 200 residents participated using a democratic, deliberative decision-making process. These events were held in Oakland's most climate-impacted neighborhoods at varying times and dates to expand accessibility. Simultaneous language interpretation services, free meals, and childcare services were provided.	None	The city uses Equity Indicators Reports to track both pollution and energy cost burdens.
Orlando	Parramore is a historically Black community in Orlando. In developing the Parramore Comprehensive Plan, the city held public meetings in the neighborhood at community centers. People were given the opportunity to speak out during the meetings, provide feedback on comment cards, vote, place sticky dots on a map, and talk to community leaders.	None	The Parramore Comprehensive Plan includes several metrics to track outcomes related to energy and health. With guidance and materials from the Urban Sustainability Directors Network and the American Cities Climate Challenge equity training, Orlando has conducted monthly workshops in which sustainability programs are evaluated through a social equity and climate justice lens. This work continues across the Offices of Sustainability and Community Affairs, with a goal to develop a training program that will augment the current inclusivity training required for all city employees.

City	Equity-driven community engagement	Equity-driven decision making	Accountability to equity
Philadelphia	The Office of Sustainability conducted community outreach in high-energy-burden neighborhoods. The city is using the feedback in multiple initiatives related to housing and energy.	Philadelphia's Environmental Justice Advisory Commission comprises residents from overburdened communities as defined by environmental, health, and socioeconomic characteristics. Input from the commission will inform the equitable implementation of climate actions.	Philadelphia requires city staff to use a racial equity budget tool to justify new spending. Philadelphia Energy Authority programs track and annually report several metrics related to outcomes for low-income households.
Phoenix	For the C40 Climate Action Plan, the city conducted outreach in marginalized communities and held some sessions in Spanish.	The city established a Village Planning Committee in each of its 16 urban "villages" to enable community residents to review all projects in their neighborhood on a monthly basis. These committees review and approve sustainability action plans in their communities.	None
Pittsburgh	None	None	The city recently released *Pittsburgh Equity Indicators: A Baseline Measurement for Enhancing Equity in Pittsburgh*. The metrics in this report will be reviewed annually.

City	Equity-driven community engagement	Equity-driven decision making	Accountability to equity
Portland	In June 2018, Portland became one of 12 U.S. cities to receive funding from the Urban Sustainability Directors Network to develop a zero-carbon building policy road map through a community collaboration process that centers on equity and is informed by technical analysis. Several community-based organizations representing marginalized communities are facilitating a community-led engagement process that will result in a road map, report, and resolution to the City Council.	The Portland Clean Energy Fund (PCEF) makes investments in communities living on the front lines of climate change with clean energy funding, job training programs, and green infrastructure projects. All PCEF projects prioritize Portland's underserved populations and neighborhoods, including communities of color and low-income residents. Projects are chosen based on scoring. Each scoring panel consists of three to five people drawing from PCEF Committee members, program staff, community members, and subject matter experts. Each panel has a minimum of one Committee member and one staff member and the PCEF aims to include a majority people of color and gender balance in the panel composition.	City uses the Budget Equity Assessment Tool to analyze how budget allocations benefit and burden marginalized communities. For the city's energy, sustainability, and climate work, there are multiple staff responsible for advancing equity through their work, guided by the Bureau of Planning and Sustainability's Equity and Vision. Annual performance reviews evaluate how well employees have advanced equity through their work and track whether they completed equity trainings.
Providence	The Racial and Environmental Justice Committee (REJC) led the community engagement process for developing Providence's Climate Justice Plan.	The city facilitated the creation of the REJC. It is made up of frontline community members of color and guides the Office of Sustainability to better incorporate equity into its work.	The city released its Climate Justice Plan in 2019. It includes seven key objectives, more than 20 targets, and more than 50 strategies aiming to create a truly equitable, low-carbon, climate-resilient city. Every recommendation proposed for the city's climate strategy was evaluated via the Principles and Values for a Racially Equitable and Just Providence, which was created by the REJC.

City	Equity-driven community engagement	Equity-driven decision making	Accountability to equity
Raleigh	None	None	City used the Equity Impacts Tool to guide development of its Community Climate Action Plan.
Richmond	None	The city's RVAgreen 2050 Racial Equity and Environmental Roundtable is a group of residents from historically disenfranchised communities who are paid for their time and lived-experience expertise to help with both the planning process and the outreach and engagement around RVAgreen 2050.	The city uses an equity screening tool to plan implementation for its climate action plan.
Sacramento	In conducting community engagement for Sacramento's General Plan, staff conducted Environmental Justice Listening Sessions. These workshops provided a space for city staff to listen to members of underserved communities articulate their lived experiences in neighborhoods that carry a disproportionate environmental burden. To encourage hard-to-reach groups to participate in community planning meetings, the project team also provided translation, food, and family-friendly activities. Further, the planning team hosted various pop-up meetings to reach marginalized residents at community events and gathering places to engage discussion on specific components of the General Plan.	The city has convened an Environmental Justice Working Group made up of community leaders, advocates, and organizations that serve Sacramento's marginalized communities. The working group is charged with developing an appropriate plan for moving forward with engagement and informing policy and implementation recommendations for the environmental justice element of the General Plan.	None

City	Equity-driven community engagement	Equity-driven decision making	Accountability to equity
San Antonio	None	The Climate Equity Technical Working Group for the Climate Action and Adaptation Plan (CAAP) consisted of 15 marginalized community members who identified barriers and solutions to climate challenges specific to San Antonio. The working group aimed to increase equity while strategically reducing greenhouse gas emissions. In December 2019, the city passed an ordinance that created two committees to oversee the implementation of the CAAP. One of them, the Climate Equity Advisory Committee, will provide input on implementation of the CAAP to ensure an equity-centered approach and equitable outcomes.	The city requires departments to complete a budget equity assessment using a tool designed to include explicit considerations of racial and economic equity in the budgeting process. San Antonio's Climate Equity Screening Mechanism was designed with the help of the Climate Equity Technical Working Group as a framework for the intentional consideration of equity issues in the implementation of climate action strategies (i.e., policies, programs, and budget decisions). It is intended as a practical tool for applying an equity lens to all actions related to climate mitigation and adaptation. Currently, the city is monitoring three climate equity indicators: median wages, asthma rates, and neighborhood poverty. With the creation of the Climate Equity Advisory Committee, San Antonio is hoping to track more climate equity indicators.

City	Equity-driven community engagement	Equity-driven decision making	Accountability to equity
San Diego	None	None	San Diego's climate action plan committed city staff to develop a methodology for reporting on equity every five years. San Diego's Climate Equity Index (CEI) was developed to measure the level of access to opportunity available to residents within a given census tract and assess the degree of potential impact from climate change to these areas. This allows the city to prioritize areas with the least access to opportunity and begin dismantling historic barriers that have caused disparities in Communities of Concern. The CEI can also be used to identify other areas that should be included in the Communities of Concern definition.

San Francisco	The city has held community climate action planning meetings in Spanish and Chinese. These meetings inform the development of the city's Climate Action Plan.	San Francisco's Department of the Environment has convened an Anchor Partners Network (APN) to work directly with marginalized communities to establish equitable zero-emissions residential building strategies that will inform the city's 2020 Climate Action Strategy (CAS) update. The APN is co-led by Emerald Cities–San Francisco and PODER, organizations committed to equity in the clean energy sector. These groups organize with frontline communities, including low-income people and people of color, those most burdened by the impacts of the climate crisis, and they are at the forefront of promoting genuine climate solutions. Through a series of stakeholder meetings, the APN will share the twin goals of residential building decarbonization and racial equity and will collect and incorporate community feedback to prioritize key strategies for the upcoming CAS update in order to meet both goals.	SF Administrative Code 12A.19(c)(4) directs the Office of Racial Equity to conduct a racial and social equity assessment on all legislation. All new legislation must be referred to the Office of Racial Equity within eight days of its introduction.

City	Equity-driven community engagement	Equity-driven decision making	Accountability to equity
San José	In developing its climate action plan, the city partnered with community-based organizations to conduct 38 outreach events in Spanish- and Vietnamese-speaking neighborhoods.	The city established the Community Co-Creation Consultants to allow two community-based organizations serving marginalized communities to guide the engagement processes for and the development of city policies on equitable residential building electrification.	The Move San José plan includes 40 key performance indicators on improving transit and transportation access in disadvantaged communities.
Seattle	The city created the Duwamish Valley Action Plan in collaboration with marginalized residents living in the South Park area of Seattle. The city employed several approaches to increase participation from these residents.	The city created the Environmental Justice Committee (EJC) in 2017. The EJC gives those most affected by environmental inequities an opportunity to direct implementation of the city's Equity & Environment Agenda. The EJC oversees the Environmental Justice Fund, a new grant opportunity for community-led projects that improve environmental conditions, respond to impacts of climate change, and work toward environmental justice.	The city, through its Race and Social Justice Initiative (RSJI), requires all city departments, including the utility and the Office of Sustainability and Environment, to develop equity goals and to use an RSJI tool kit prior to and throughout development and implementation of an initiative.
Springfield	The city held two of its three climate action plan community workshops in socially vulnerable communities. The two nongovernmental entities leading the community engagement process were organizations focused on climate justice. The city provided childcare at all community workshops.	None	Springfield's resilience plan has a goal to ensure that 50% of all low-income utility accounts have a 50% or greater discount from community shared solar projects by 2022.

City	Equity-driven community engagement	Equity-driven decision making	Accountability to equity
Saint Paul	In the spring of 2019, the city held five community forums to share the draft Climate Action and Resilience Plan with residents and to solicit feedback. Four of the five meetings were held in areas of concentrated poverty where most of the residents are people of color. Each event was cohosted by a community-based organization partner.	The Climate Justice Advisory Board was created to advise the city on developing policies and programs related to the Climate Action and Resilience Plan. Half of the board consists of Black, indigenous, and people of color (BIPOC) members.	City adopted a goal that within 10 years the energy burden will be reduced so that no Saint Paul household spends more than 4% of household income on energy costs.
Toledo	None	None	The Toledo–Lucas County Going Beyond Green plan includes a goal to improve the area's housing and transportation affordability index by 11 index points (a 15% reduction) between 2012 and 2030.
Washington, DC	Two of the three main goals in updating the District's sustainability plans are to focus the planning process on underserved communities and to make the plan more relevant to people who have not participated in sustainability in the past, particularly people of color. To make the planning process most convenient for residents from underserved communities, Washington, DC, partnered with community organizations to help recruit new participants, held meetings in familiar, transit-accessible venues in communities of focus, and restructured meeting formats to be more casual and accessible.	In 2017 and 2018, the District and the Georgetown Climate Center convened an Equity Advisory Group of community leaders and residents of Far Northeast Ward 7 to develop recommendations on the Department of Energy and Environment's implementation of its Climate Ready DC and Clean Energy DC plans. The District's climate vulnerability analysis showed that communities in Far Northeast Ward 7 face disproportionate flooding and other climate-related risks relative to other parts of the District.	The Racial Equity Achieves Results Act requires the city to develop and use equity tools to better integrate equity into policies, programs, budgets, rules, and regulations.

We include only those cities that received points for these metrics in this table. Sources: We collected information regarding cities' equity-driven strategies for clean energy planning through correspondence with city staff and from city climate action, energy, sustainability, and resilience planning documents.

TRANSPORTATION POLICIES

Table F3. Summary of scoring on transportation plans and targets

City	Sustainable transportation policy	Total (9 pts)
Seattle	Seattle's 2035 Comprehensive Plan was updated in 2022 and includes sustainable transportation strategies. It also includes strategies specifically benefitting disadvantaged communities. The city's Climate Action Plan, adopted in 2013, contains a goal to reduce GHG emissions from transportation 82% by 2030 from 2008 levels.	9.0
Austin	The Austin Strategic Mobility Plan was adopted in 2019 and amended in 2022, and includes sustainable transportation strategies. It also includes strategies specifically benefitting disadvantaged communities. The plan contains a goal to reduce VMT by 20% by 2039.	8.0
Portland	Portland's Transportation System Plan was updated in 2020 and includes sustainable transportation strategies. It also includes strategies specifically benefitting disadvantaged communities. The city's Climate Action Plan, adopted in 2015, contains a goal to reduce VMT 30% from 2008 levels by 2030.	8.0
Cleveland	The Cleveland Climate Action Plan was updated in 2018 and includes sustainable transportation strategies. The plan contains a goal to reduce GHG emissions from transportation by 400,000 metric tons from a 2010 baseline by 2030.	7.0
San Diego	San Diego's Climate Action Plan was adopted in 2022 and includes sustainable transportation strategies. It also includes strategies specifically benefitting disadvantaged communities. The 2015 version of the plan contains a goal to reduce GHG emissions from transportation by 264,120 metrics tons from a 2010 baseline by 2030.	7.0
Spokane	Spokane's Sustainability Action Plan was adopted in 2021 and includes sustainable transportation strategies. It also includes strategies specifically benefitting disadvantaged communities. The plan contains a goal to reduce GHG emissions from transportation 50% by 2030, 90% by 2040, and 100% by 2050 from 2016 levels.	6.0
Washington, DC	moveDC was updated in 2021 and includes sustainable transportation strategies. It also includes strategies specifically benefitting disadvantaged communities. The plan contains a goal to reduce GHG emissions from transportation 60% by 2032 from 2006 levels.	6.0
Charleston	Charleston's Climate Action Plan was adopted in 2021 and includes sustainable transportation strategies. The plan also contains a goal to reduce emissions by 73,142 $MtCO_2$ by 2025 and reduce VMT by 4% by 2025.	5.0

City	Sustainable transportation policy	Total (9 pts)
Kansas City	The Climate Protection and Resiliency Plan was released in 2023 and includes sustainable transportation strategies. It also includes strategies specifically benefitting disadvantaged communities. The plan contains a goal to reduce GHG emissions from transportation by 787,300 metric tons by 2025, 1.49 million tons by 2030, and 2.67 million tons by 2040.	5.0
Memphis	The Memphis Climate Action Plan was released in 2020 and includes sustainable transportation strategies. It also includes strategies specifically benefitting disadvantaged communities. The plan contains a goal to reduce GHG emissions from transportation 51% by 2035 and 71% by 2050 from 2016 levels.	5.0
Boston	The Go Boston 2030 plan was released in 2017 and includes sustainable transportation strategies. The plan contains a goal of reducing GHG emissions from transportation by 50% by 2030 from 2005 levels.	4.5
Chicago	The Chicago Strategic Plan for Transportation was released in 2021 and includes sustainable transportation strategies. It also includes strategies specifically benefitting disadvantaged communities. The city's Climate Action Plan, updated in 2022, contains a goal of reducing emissions from passenger transportation by 6% and reducing emissions from freight transportation by 3% by 2040.	4.0
Columbus	The Columbus Climate Action Plan was released in 2021 and includes sustainable transportation strategies. The plan also contains a goal of reducing VMT 15% by 2030 and 40% by 2050.	4.0
Indianapolis	Thrive Indianapolis was adopted in 2019 and includes sustainable transportation strategies. The plan also contains a goal of reducing 3,957,835 metric tons of CO_2 from transportation in 2025, with a baseline of 4.9 million metric tons in 2016.	4.0
Long Beach	Long Beach's Climate Action Plan was adopted in 2022 and contains sustainable transportation strategies. The plan also contains a goal of reducing GHG emissions from transportation by 30,480 metric tons by 2030.	4.0
Los Angeles	The Los Angeles Department of Transportation Strategic Plan Update was released in 2021 and includes sustainable transportation strategies. It also includes strategies specifically benefitting disadvantaged communities. The Los Angeles Green New Deal Sustainable City pLAn, released in 2019, includes a goal to reduce VMT 13% by 2025, 39% by 2035, and 45% by 2045.	4.0
Madison	Madison's Vision Zero Action Plan was adopted in 2022 and contains sustainable transportation strategies. It also includes strategies specifically benefitting disadvantaged communities. The plan contains a goal to reduce VMT 15% by 2050.	4.0

City	Sustainable transportation policy	Total (9 pts)
Milwaukee	Milwaukee's Climate and Equity Plan was adopted in 2023 and contains sustainable transportation strategies. It also includes strategies specifically benefitting disadvantaged communities. The plan contains a goal to reduce daily average VMT 20% by 2030.	4.0
New York	PlaNYC was released in 2023 and includes sustainable transportation strategies. It also includes strategies specifically benefitting disadvantaged communities. The plan contains a goal to reduce GHG emissions from transportation 50% by 2030.	4.0
Oxnard	Oxnard's Climate Action and Adaptation Plan was released in 2022 and includes sustainable transportation strategies. It also includes strategies specifically benefitting disadvantaged communities. The plan contains a goal to reduce GHG emissions from transportation by 15,657 metric tons by 2030.	4.0
Pittsburgh	The 2070 Mobility Vision was released in 2021 and includes sustainable transportation strategies. It also includes strategies specifically benefitting disadvantaged communities. Pittsburgh's Climate Action Plan, adopted in 2018, contains a goal to reduce on-road transportation emissions 50% from 2013 levels by 2030.	4.0
Providence	Providence's Climate Justice Plan was released in 2019 and includes sustainable transportation strategies. It also includes strategies specifically benefitting disadvantaged communities. The plan contains a goal to reduce VMT 11% by 2035 and 20% by 2050.	4.0
Saint Paul	Saint Paul's Climate Action and Resilience Plan was adopted in 2019 and includes sustainable transportation strategies. It also contains a goal of reducing per capita VMT 2.5% per year through 2050.	4.0
San José	Move San José was adopted in 2022 and includes sustainable transportation strategies. It also includes strategies specifically benefitting disadvantaged communities. The Climate Smart Plan, adopted in 2018, contains a goal to reduce VMT per capita 21% by 2030, 43% by 2040, and 57% by 2050 from 2017 levels.	4.0
Fayetteville	Fayetteville's Energy Action Plan was released in 2018 and includes sustainable transportation strategies. The plan also contains a goal to reduce VMT back to 2010 levels by 2030.	3.5
Atlanta	The One Atlanta Strategic Transportation Plan was released in 2019 and includes sustainable transportation strategies. Additionally, the city's Climate Action Plan, released in 2015, contains a goal of reducing greenhouse gas emissions from the transportation sector 40% by 2030 from a 2009 baseline.	3.0
Boise	The Boise Climate Action Roadmap was adopted in 2021 and includes sustainable transportation strategies. The plan contains a goal of reducing VMT by 1% annually.	3.0

City	Sustainable transportation policy	Total (9 pts)
Houston	Houston's Climate Action Plan was released in 2020 and includes sustainable transportation strategies. The plan also contains a goal of reducing VMT per capita 20% by 2050.	3.0
Las Vegas	The Las Vegas 2050 Master Plan was adopted in 2021 and includes sustainable transportation strategies. The plan also contains a goal of reducing VMT by 0.5% annually beginning in 2025.	3.0
Minneapolis	The Transportation Action Plan was adopted in 2020 and contains sustainable transportation strategies. The plan contains a goal to reduce VMT 1.8% per year between 2018 and 2030.	3.0
Philadelphia	Connect Philadelphia was released in 2018 and includes sustainable transportation strategies. It also contains a goal to reduce GHG emissions from transportation 10% by 2025.	3.0
San Antonio	San Antonio's Climate Ready Plan was adopted in 2019 and includes sustainable transportation strategies. The plan also contains a goal of reducing GHG emissions from transportation 47% from 2016 levels by 2030, and 75% by 2040.	3.0
Charlotte	The Strategic Mobility Plan was adopted in 2022 and includes sustainable transportation strategies. It also includes strategies specifically benefitting disadvantaged communities.	2.0
Chattanooga	The Chattanooga Climate Action Plan was released in 2023 and includes sustainable transportation strategies. It also includes strategies specifically benefitting disadvantaged communities.	2.0
Denver	The Denver Moves Everyone Plan was released in 2023 and includes sustainable transportation strategies. The plan also includes strategies specifically benefitting disadvantaged communities.	2.0
Des Moines	The Des Moines Moves DSM Plan was released in 2018 and includes sustainable transportation strategies. It also includes strategies specifically benefitting disadvantaged communities.	2.0
Mesa	The Mesa Climate Action Plan was released in 2022 and includes sustainable transportation strategies. It also includes strategies specifically benefitting disadvantaged communities.	2.0
Oakland	Oakland's Zero Emission Vehicle Action Plan was released in 2022 and includes sustainable transportation strategies. It also includes strategies specifically benefitting disadvantaged communities.	2.0
Orlando	Orlando's 2030 E-Mobility Roadmap was released in 2022 and includes sustainable transportation strategies. It also includes strategies specifically benefitting disadvantaged communities.	2.0
Phoenix	Phoenix's Transportation Electrification Action Plan was adopted in 2022 and includes sustainable transportation strategies. It also includes strategies specifically benefitting disadvantaged communities.	2.0

City	Sustainable transportation policy	Total (9 pts)
Richmond	The Richmond 300 Master Plan was adopted in 2020 and includes sustainable transportation strategies. It also includes strategies specifically benefitting disadvantaged communities.	2.0
Sacramento	The Climate Implementation Work Plan was released in 2021 and includes sustainable transportation strategies. It also includes strategies specifically benefitting disadvantaged communities.	2.0
San Francisco	The San Francisco Transportation Plan 2050 was released in 2022 and includes sustainable transportation strategies. It also includes strategies specifically benefitting disadvantaged communities.	2.0
Tampa	Tampa's Climate Action and Equity Plan was released in 2023 and includes sustainable transportation strategies. It also includes strategies specifically benefitting disadvantaged communities.	2.0
Tucson	Tucson's Climate Action and Adaptation Plan was adopted in 2023 and includes sustainable transportation strategies. It also includes strategies specifically benefitting disadvantaged communities.	2.0
Aurora	The Aurora Places Comprehensive Plan was adopted in 2018 and includes sustainable transportation strategies.	1.0
Baltimore	The Baltimore Sustainability Plan was adopted in 2019 and includes sustainable transportation strategies.	1.0
Bridgeport	Plan Bridgeport was released in 2019 and includes sustainable transportation strategies.	1.0
Chula Vista	Chula Vista's Active Transportation Plan was adopted in 2020 and includes sustainable transportation strategies.	1.0
Cincinnati	The Green Cincinnati Plan was adopted in 2023 and includes sustainable transportation strategies.	1.0
Dallas	Connect Dallas was adopted in 2021 and includes sustainable transportation strategies.	1.0
Detroit	Detroit's Sustainability Action Agenda was released in 2019 and includes sustainable transportation strategies.	1.0
Grand Rapids	The Equitable Economic Development and Mobility Strategic Plan was released in 2020 and includes sustainable transportation strategies.	1.0
Honolulu	Honolulu's Climate Action Plan was released in 2021 and includes sustainable transportation strategies.	1.0
Knoxville	Knoxville's Energy and Sustainability Work Plan was released in 2021 and includes sustainable transportation strategies.	1.0
Lansing	Lansing's Sustainability Action Plan was released in 2022 and includes sustainable transportation strategies.	1.0

City	Sustainable transportation policy	Total (9 pts)
Louisville	Plan 2040 was adopted in 2018 and includes sustainable transportation strategies.	1.0
Nashville	The Metro Nashville Transportation Plan was released in 2020 and includes sustainable transportation strategies.	1.0
New Haven	New Haven's Climate and Sustainability Framework was released in 2018 and includes sustainable transportation strategies.	1.0
New Orleans	New Orleans' Climate Action Plan was adopted in 2022 and includes sustainable transportation strategies.	1.0
Raleigh	Raleigh's Community Climate Action Plan was released in 2021 and includes sustainable transportation strategies.	1.0
Reno	Reno's Sustainability and Climate Action Plan was adopted in 2019 and includes sustainable transportation strategies.	1.0
Riverside	Riverside's Active Transportation Master Plan was released in 2021 and includes sustainable transportation strategies.	1.0
St. Petersburg	The Integrated Sustainability Action Plan was adopted in 2019 and includes sustainable transportation strategies.	1.0
Hartford	Hartford's Climate Action Plan was adopted in 2017 and includes sustainable transportation strategies.	0.5
Miami	Miami's Comprehensive Neighborhood Plan was adopted in 2017 and includes sustainable transportation strategies.	0.5
Rochester	Rochester's Climate Action Plan was released in 2017 and includes sustainable transportation strategies.	0.5
Salt Lake City	The city's Climate Positive Plan was released in 2017 and includes sustainable transportation strategies.	0.5
Springfield	Springfield's Climate Action and Resilience Plan was released in 2017 and includes sustainable transportation strategies.	0.5
St. Louis	St. Louis's Climate Action and Adaptation Plan was released in 2017 and includes sustainable transportation strategies.	0.5

We include only those cities that received points for this metrics in the table. Sources: We collected information regarding city goals from city ordinances; mayoral executive orders; and city climate action, sustainability, energy, resilience, and comprehensive community plans. Targeted changes in vehicle miles traveled or transportation-specific GHGs were calculated using data from these sources, online data portals, greenhouse gas emissions inventories, and correspondence with city staff.

Table F4. Freight system efficiency

City	Freight plan or strategy	Total (6 pts)
Los Angeles	The San Pedro Bay Ports Clean Air Action Plan contains several sustainable freight strategies for the Port of Los Angeles, including emissions standards for trucks, incentives for ships with emission-reduction technologies and cleaner engines, and investing in on-dock rail support facilities to increase the proportion of cargo leaving by rail. The city is also pursuing a zero-emission delivery curb designation to incentivize zero-emission freight. Finally, the Port of Los Angeles hosts an open data portal that displays truck turn times by terminal, container tracking data, terminals accepting empty containers, and current vessel activity in real time.	6.0
Oakland	The Seaport Air Quality 2020 and Beyond Plan contains sustainable freight strategies for the Port of Oakland, including expanding electric vehicle charging infrastructure at the port. The city is also pursuing curbside management strategies to improve freight efficiency. Finally, the Port of Oakland hosts an open data portal, updated in real-time, displaying average truck turn times for the last 30 minutes and the current truck count at each terminal.	6.0
Atlanta	Atlanta does not have a sustainable freight plan or freight mobility plan. However, the city is pursuing multiple sustainable freight strategies, including improved freight efficiency through curbside management and off-peak deliveries. Additionally, the city's Hartsfield-Jackson Airport hosts an open data portal that allows truckers to see available docks and average truck dwell time in real time.	4.0
Long Beach	The San Pedro Bay Ports Clean Air Action Plan contains several sustainable freight strategies for the Port of Long Beach, including emissions standards for trucks, incentives for ships with emission-reduction technologies and cleaner engines, and investing in on-dock rail support facilities to increase the proportion of cargo leaving by rail. Additionally, the Port of Long Beach hosts an open data portal showing current vessels at berth.	4.0

City	Freight plan or strategy	Total (6 pts)
New York	Freight NYC, the city's freight plan, contains several sustainable freight strategies, including developing barge terminals in New York Harbor to shift truck miles to barge miles, constructing new transloading facilities to expand businesses' access to the rail network, and supporting the deployment of EV charging infrastructure in freight hubs. New York City is also piloting a last-mile delivery program with over 200 cargo bikes. Finally, the Port of New York and New Jersey hosts an open data portal displaying a real-time map of vessels' locations in the port.	4.0
Portland	Portland's 2040 Freight Plan contains several sustainable freight strategies, including piloting low emissions zones, piloting urban consolidation hubs, exploring cargo bike delivery strategies, and improving intermodal freight facilities to encourage the use of more efficient modes.	3.0
Seattle	Seattle's Freight Master Plan contains several sustainable freight strategies, including strategies to enable bike and non-truck deliveries in urban areas, piloting off-peak deliveries, exploring the use of freight demand management to consolidate freight trips, and implementing urban consolidation centers.	3.0
Washington, DC	The 2020 District Department of Transportation Freight Plan Addendum contains several sustainable freight strategies, including exploring and potentially implementing e-bike deliveries and curbside distribution hubs as well as curbside management to improve freight efficiency.	3.0
Miami	Miami does not have a sustainable freight plan or freight mobility plan. However, the city is partnering with DHL and REEF technology to pilot e-cargo bike deliveries. Additionally, PortMiami hosts an open data portal displaying data on docked vessels.	2.0
Charleston	Charleston does not have a sustainable freight plan or freight mobility plan. However, South Carolina Ports Authority, which operates the Port of Charleston, hosts an open data portal displaying current terminal acceptance with equipment availability that is updated every half hour.	1.5
Denver	Denver does not have a sustainable freight plan or freight mobility plan. However, the city is pursuing multiple sustainable freight strategies, including cargo bike and e-bike delivery solutions, off-peak deliveries, and urban consolidation centers.	1.5
Pittsburgh	Pittsburgh does not have a sustainable freight plan or freight mobility plan. However, the city is pursuing multiple sustainable freight strategies, including off-peak deliveries, urban freight consolidation hubs, e-bike deliveries, and curbside management.	1.5

City	Freight plan or strategy	Total (6 pts)
San José	San José does not have a sustainable freight plan or freight mobility plan. However, the city is pursuing multiple sustainable freight strategies, including encouraging goods movement by rail, exploring cargo bike deliveries and pickup lockers, and implementing a zero-emissions freight pilot in the Santee neighborhood.	1.5
Charlotte	Charlotte does not have a sustainable freight plan or freight mobility plan. However, the city is pursuing multiple sustainable freight strategies, including dynamic curbside management and encouraging multimodal last-mile deliveries.	1.0
Chattanooga	Chattanooga does not have a sustainable freight plan or freight mobility plan. However, the city is pursuing multiple sustainable freight strategies, including exploring the establishment of low- or no-emission zones and incentivizing the adoption of electric commercial vehicles.	1.0
Chicago	Chicago does not have a sustainable freight plan or freight mobility plan. However, the city is pursuing multiple sustainable freight strategies, including curbside management and promoting rail efficiency through the CREATE program.	1.0
Saint Paul	St. Paul does not have a sustainable freight plan or freight mobility plan. However, the city is pursuing multiple sustainable freight strategies, including curbside management and prioritizing investments in multimodal freight hubs.	1.0
Tucson	Tucson does not have a sustainable freight plan or freight mobility plan. However, the city is pursuing multiple sustainable freight strategies, including adopting a zero-emissions delivery zone and encouraging delivery companies to utilize electric vehicles.	1.0
Boston	Boston does not have a sustainable freight plan or freight mobility plan. However, the city is pursuing curbside management to improve freight efficiency.	0.5
Columbus	Columbus does not have a sustainable freight plan or freight mobility plan. However, the city is pursuing curbside management to improve freight efficiency.	0.5
Houston	Houston does not have a sustainable freight plan or freight mobility plan. However, the city is promoting and improving freight rail transportation through the Gulf Coast Rail District.	0.5
Milwaukee	Milwaukee does not have a sustainable freight plan or freight mobility plan. However, Port Milwaukee provides incentives for vessels with low-emissions technologies.	0.5

City	Freight plan or strategy	Total (6 pts)
Minneapolis	Minneapolis does not have a sustainable freight plan or freight mobility plan. However, the city is pursuing the encouragement of off-peak deliveries.	0.5
Nashville	Nashville does not have a sustainable freight plan or freight mobility plan. However, the city is pursuing curbside management strategies through a smart loading zone pilot program in downtown Nashville.	0.5
Orlando	Orlando does not have a sustainable freight plan or freight mobility plan. However, the city is pursuing dynamic curbside management to improve freight efficiency.	0.5
Richmond	Richmond does not have a sustainable freight plan or freight mobility plan. However, the city is expanding maritime freight capacity in partnership with the Richmond Marine Terminal.	0.5
San Antonio	San Antonio does not have a sustainable freight plan or freight mobility plan. However, according to the SA Climate Ready Plan, city is aiming to incentivize the adoption of electric freight vehicles.	0.5
San Francisco	San Francisco does not have a sustainable freight plan or freight mobility plan. However, the city is pursuing the transition of deliveries to off-peak hours on Market Street.	0.5
Spokane	Spokane does not have a sustainable freight plan or freight mobility plan. However, according to the Spokane Sustainability Action Plan, the city plans to encourage deliveries to shift to bikes, e-bikes, and cargo bikes.	0.5

Table F5. Transit funding and performance

City	Transit funding average (2017–2021)	AllTransit score (max 10 pts)
Akron	$45,830,316.60	5.3
Albuquerque	$75,150,162.20	4.9
Atlanta	$681,372,262.00	8
Aurora	---	6.4
Austin	$275,290,476.40	5.2
Baltimore	$84,370,318.80	8.4
Boise	$1,048,317.60	3.8
Boston	$876,550,580.40	9.3
Bridgeport	$4,288,248.00	6.9
Charleston	---	3.2
Charlotte	$152,175,354.00	5
Chattanooga	$15,468,754.00	3.3
Chicago	$1,174,703,252.20	9.1
Chula Vista	---	5.7
Cincinnati	$86,359,710.80	6.8
Cleveland	$277,645,786.60	8.8
Columbus	$127,780,431.00	5.2
Dallas	$686,149,687.40	6.8
Denver	$765,346,933.60	7.8
Des Moines	$27,825,363.40	5
Detroit	$146,559,889.00	6.9
Durham	$45,603,296.80	4.8
Fayetteville	$2,259,449.00	3.9
Fresno	$21,181,015.40	5
Grand Rapids	$22,621,734.80	6.5
Hartford	$1,170,069.60	8.5
Honolulu	$370,607,029.40	7.9
Houston	$519,833,553.00	5.9
Indianapolis	$87,895,015.80	4.9
Kansas City	$90,675,214.60	4.8

City	Transit funding average (2017–2021)	AllTransit score (max 10 pts)
Knoxville	$10,566,381.80	4.4
Lansing	$32,527,284.80	5.8
Las Vegas	$162,043,487.40	5.1
Long Beach	$57,732,683.60	8
Los Angeles	$2,423,488,784.40	7.7
Louisville	$66,659,761.80	6.3
Madison	$35,719,587.00	6.3
Memphis	$33,187,544.00	4.1
Mesa	$0.00	4.6
Miami	$584,860,668.40	8.5
Milwaukee	$66,060,874.60	7.7
Minneapolis	$357,354,337.80	8.3
Nashville	$76,182,752.80	3.7
New Haven	---	7.9
New Orleans	$86,838,624.40	7.4
New York	$1,876,479,204.20	9.6
Oakland	$1,164,082,750.00	8.3
Orlando	$102,534,601.80	6
Oxnard	$17,520,174.40	5.5
Philadelphia	$618,586,604.60	9
Phoenix	$339,934,789.60	6.1
Pittsburgh	$132,975,904.00	8.3
Portland	$550,936,907.00	8.9
Providence	$73,715,383.40	7.4
Raleigh	$38,228,448.00	4.9
Reno	$26,689,020.60	4.3
Richmond	$32,943,506.80	7.7
Riverside	$55,635,645.00	5.2
Rochester	$29,456,673.40	6.5
Sacramento	$132,498,614.80	6.3
Saint Paul	---	7.7

City	Transit funding average (2017–2021)	AllTransit score (max 10 pts)
Salt Lake City	$306,367,026.00	8.4
San Antonio	$202,608,326.40	6.6
San Diego	$164,086,520.60	6
San Francisco	$731,123,099.00	9.6
San José	$459,146,419.80	7
Seattle	$1,737,136,403.40	8.5
Spokane	$63,634,364.80	6
Springfield	$15,652,356.60	6.9
St. Louis	$273,497,100.00	8.4
St. Petersburg	$62,398,534.20	5.6
Tampa	$57,227,490.00	5.3
Toledo	$16,231,208.80	3.9
Tucson	$60,143,430.40	5.8
Washington, DC	$1,657,751,333.40	9.3

Sources: FTA 2021; CNT 2023

COMMUNITY ENERGY INSTRASTRUCTURE

Table F6. Distributed energy resources

City	District energy integration	District energy (equity-related)	Microgrid integration	Microgrid (equity-related)	Community solar support	Community solar (equity-related)
Akron	City Council approved a $25 million renovation grant to incorporate renewable energy	None	None	None	None	None
Aurora	None	None	None	None	City hosts three community solar projects on city property	Colorado Community Solar Gardens Act
Austin	City integrated energy storage into an existing district energy system	None	None	None	Austin Energy offers a community solar program to customers	Austin Energy provides direct utility bill discounts for income-eligible customers who subscribe to its community solar program
Boise	City operates a geothermal steam distribution plant	None	None	None	None	None

City	District energy integration	District energy (equity-related)	Microgrid integration	Microgrid (equity-related)	Community solar support	Community solar (equity-related)
Boston	Smart Utilities Policies requires developments over 1.5 million square feet to conduct a district energy feasibility study that integrates energy storage, renewable energy, and/or combined heat and power	None	Smart Utilities Policies requires developments over 1.5 million square feet to conduct a microgrid feasibility study that integrates energy storage, renewable energy, and/or combined heat and power	None	None	None
Bridgeport	None	None	Bridgeport microgrid integrates combined heat and power	None	None	None
Charlotte	None	None	Microgrid at fire station integrates solar and storage	None	None	None

City	District energy integration	District energy (equity-related)	Microgrid integration	Microgrid (equity-related)	Community solar support	Community solar (equity-related)
Chattanooga	None	None	Microgrid at fire and police station integrates renewable energy	None	None	None
Chicago	None	None	None	None	City issued a request for proposals for community solar projects	None
Cleveland	Cleveland Thermal district energy system was retrofit to include combined heat and power	None	None	None	None	None
Columbus	None	None	City signed an agreement with AEP Ohio to construct a solar-plus-storage microgrid	None	None	None
Denver	Energy Future Collaboration highlights energy storage for use in district energy systems	None	Energy Future Collaboration highlights energy storage for use in microgrids	None	City supported the creation of Arapahoe and SunShare community solar projects	Colorado Community Solar Gardens Act

City	District energy integration	District energy (equity-related)	Microgrid integration	Microgrid (equity-related)	Community solar support	Community solar (equity-related)
Fresno	None	None	None	None	City supported the creation of a community solar project for disadvantaged community residents	The project will contribute to direct utility bill reductions for disadvantaged communities
Hartford	None	None	Ordinance enabling an Energy Improvement District allows microgrids to incorporate clean energy technology	None	Energy Improvement District issued a request for proposals for community solar	None
Houston	None	None	None	None	City supported the creation of the Sunnyside Community Solar Farm	The Sunnyside Community Solar Farm is sited in an environmental justice community
Indianapolis	District energy system was converted from coal to natural gas CHP	None	None	None	None	None
Kansas City	None	None	None	None	City has entered into an agreement with Kansas City Power and Light to site community solar systems on city property	None

City	District energy integration	District energy (equity-related)	Microgrid integration	Microgrid (equity-related)	Community solar support	Community solar (equity-related)
Knoxville	None	None	None	None	City partnered with Knoxville Utilities Board to support the creation of a 1-MW community solar project	None
Long Beach	None	None	Port of Long Beach is constructing a microgrid that includes renewables and electric vehicle charging stations	None	None	None
Los Angeles	None	None	None	None	The Department of Water and Power operates a community solar program	AB 2316 requires LMI households to make up a majority of community solar subscribers
Madison	None	None	None	None	Madison entered into an agreement with OneEnergy for the installation of five community solar farms	None
Milwaukee	None	None	City constructed a solar array that connected into an existing microgrid	None	None	None

City	District energy integration	District energy (equity-related)	Microgrid integration	Microgrid (equity-related)	Community solar support	Community solar (equity-related)
Minneapolis	None	None	None	None	City provided low-cost land lease for a community solar farm	City reserved a percentage of shares of the community solar garden for low-income households
Nashville	None	None	None	None	City provided no-cost land lease for the Music City Community Solar farm	City reserved a percentage of shares of the community solar garden for low-income households
New Orleans	None	None	None	None	City opened docket UD-18-03 to support the creation of community solar	The community solar rules require at least 50% of community solar projects have a minimum of 30% of low-income subscribers.
New York	At the Red Hook East and West public housing complexes, city is building a district heating system and microgrid that integrate combined heat and power	City is siting the district energy system in a public housing project	At the Red Hook East and West public housing complexes, city is building a district heating system and microgrid that integrate combined heat and power	City is siting the microgrid in a public housing project	NYC Housing Authority has supported the creation of community solar farms	City requires city-supported community solar projects to provide direct bill discounts to low-income residents

City	District energy integration	District energy (equity-related)	Microgrid integration	Microgrid (equity-related)	Community solar support	Community solar (equity-related)
Oakland	None	None	EcoBlock project includes renewable energy and electric vehicle charging stations	EcoBlock project is sited in an environmental justice community	None	None
Orlando	None	None	None	None	Orlando Utilities Commission operates a community solar program	None
Philadelphia	None	None	Navy Yard microgrid project integrates renewable energy and fuel cell technology	None	None	None
Phoenix	Clearway Community Energy district energy system includes storage	None	None	None	None	None

City	District energy integration	District energy (equity-related)	Microgrid integration	Microgrid (equity-related)	Community solar support	Community solar (equity-related)
Pittsburgh	Uptown Energy District includes combined heat and power; city signed an MOU with the Danish Energy and Climate Agency to develop the Pittsburgh District Energy Initiative	None	City constructed microgrids that integrate renewable energy and electric vehicle charging stations for District Energy Initiative	None	None	None
Portland	None	None	Fire station microgrid integrated solar and storage	None	None	None
Reno	None	None	None	None	Reno partnered with its utility to construct a community solar project.	The community solar project is specifically for disadvantaged community residents.
Sacramento	None	None	None	None	SMUD operates a community solar program	AB 2316 requires LMI households to make up a majority of community solar subscribers
Saint Paul	City integrated renewable biomass into district energy system	None	None	None	City supported creation of a community solar farm by subscribing as an anchor	Community solar shares are reserved for low-income residents

City	District energy integration	District energy (equity-related)	Microgrid integration	Microgrid (equity-related)	Community solar support	Community solar (equity-related)
San Diego	None	None	City entered into an agreement to host eight microgrids on city facilities with integrated renewable energy, energy storage, and electric vehicle charging	None	None	None
San José	As part of the city's Downtown West Mixed-Use Project, the city entered into an agreement to integrate renewable energy into a district energy system	City is siting the district energy system in an affordable housing project	As part of the city's Downtown West Mixed-Use Project, the city entered into an agreement to integrate renewable energy and energy storage into a microgrid	City is siting the microgrid system in an affordable housing project	San José Clean Energy supported the creation of a 1.4-MW community solar project	None
Seattle	None	None	Seattle City Light built a microgrid that integrates renewable energy and energy storage	None	Seattle City Light operates a community solar program	None

City	District energy integration	District energy (equity-related)	Microgrid integration	Microgrid (equity-related)	Community solar support	Community solar (equity-related)
Springfield	None	None	None	None	City supported the creation of the Citizens Energy community solar farm	Citizens Energy community solar farm provides direct bill discounts to low-income households
St. Louis	None	None	None	None	City is piloting a community solar program	None
St. Petersburg	None	None	None	None	City supported the creation of community solar through its participation in Duke Energy's CEC program	None
Washington, DC	None	None	None	None	DC Solar for All program supports the creation of community solar	City reserved a percentage of shares of the Oxon Run community solar garden for low-income households

LOCAL GOVERNMENT OPERATIONS

Table F7. Local government goals to reduce energy use, increase carbon-free electricity, and mitigate climate change

City	Energy reduction goal	Annual decrease targeted (%)	Carbon-free electricity goal	Annual increase targeted (kWh per household)	Climate change mitigation goal	Annual decrease targeted (%)	Projected progress toward goal
Akron	None		None		Reduce local government GHG emissions 20% by 2025, using a 2005 baseline	0.01%	
Albuquerque	Reduce local government building energy use 65% by 2025, using a 2018 baseline		Use renewable energy to power 100% of city operations by 2025	52.76	Reduce local government GHG emissions 26–28% by 2025, using a 2005 baseline		
Atlanta	None		Continue using clean energy to power 100% of city operations	157.42	Reduce local government GHG emissions 40% by 2030, using a 2009 baseline	3.4%	49%
Aurora	None		None		Reduce local government GHG 10% by 2025, using a 2007 baseline		
Austin	None		Continue using renewable energy to power 100% of city-owned building operations		Reduce local government GHG emissions 5% annually, using a 2015 baseline	3%	57%

City	Energy reduction goal	Annual decrease targeted (%)	Carbon-free electricity goal	Annual increase targeted (kWh per household)	Climate change mitigation goal	Annual decrease targeted (%)	Projected progress toward goal
Baltimore	Reduce local government electricity use 30% by 2030, using a 2006 baseline	2.6%	None		Reduce local government GHG emissions 30% by 2025, using a 2007 baseline	0%	0%
Boise	Reduce local government energy use 50% by 2030, using a 2015 baseline	5%	Use renewable energy to power 100% of city operations by 2030	42.59	Reduce local government GHG emissions 100% by 2035	7.14%	
Boston	Reduce energy use in municipal buildings 20% by 2023, using a 2011 baseline	1.9%	None		Reduce local government GHG emissions 60% by 2030, using a 2005 baseline	4.16%	23%
Bridgeport	None		None		Reduce local government GHG emissions 30% by 2030, using a 2007 baseline	1.54%	
Charleston	Completed an ESPC in 2020 that targets a 46.6% reduction in citywide energy use		None		Reduce local government GHG emissions 56% by 2030, using a 2018 baseline	5.3%	
Charlotte	None		Use 100% zero-carbon energy for city buildings and fleet by 2030		Reduce local government GHG emissions 100% by 2030, using a 2015 baseline	6.67%	50.3%
Chattanooga	None		None		Reduce local government GHG emissions 100% by 2040		

City	Energy reduction goal	Annual decrease targeted (%)	Carbon-free electricity goal	Annual increase targeted (kWh per household)	Climate change mitigation goal	Annual decrease targeted (%)	Projected progress toward goal
Chicago	None		Use renewable energy to power 100% of city-owned buildings by 2035		Reduce local government GHG emissions 26% by 2025, using a 2005 baseline		
Chula Vista	Reduce energy use in municipal buildings 50% by 2023, using a 2010 baseline		Renewable energy powers 100% of municipal accounts		None		
Cincinnati	Reduce energy use in municipal buildings 50% by 2030, using a 2022 baseline	1.5%	Use renewable energy to power 100% of city operations by 2035		None		
Cleveland	Reduce local government energy use 20% by 2030, using a 2010 baseline	0.7%	Use onsite renewable energy to meet 5% of city energy needs by 2030		Reduce local government GHG emissions 45% by 2030, using a 2010 baseline	2.48%	100%
Columbus	None		Use renewable energy to supply 100% of city electricity by 2030	45.4 kWh	Reduce local government emissions 45% by 2030, using 2013 baseline	4.78%	12.6%
Dallas	None		None		Reduce local government emissions 43% by 2030, using a 2015 baseline	3.03%	57%
Denver	None		Use renewable energy to power 100% of city operations by 2025	272.58 kWh per household	None		
Des Moines	None		None		None		

City	Energy reduction goal	Annual decrease targeted (%)	Carbon-free electricity goal	Annual increase targeted (kWh per household)	Climate change mitigation goal	Annual decrease targeted (%)	Projected progress toward goal
Detroit	None		None		Reduce local government GHG emissions 25% by 2025, using a 2012 baseline	1.2%	
Durham	None		None		Reduce local government GHG emissions 50% by 2030, using a 2005 baseline	0.2%	
Fayetteville	Reduce municipal energy use 3% annually		None		Reduce local government GHG emissions 40% by 2030, using a 2010 baseline	4.05%	
Fresno	None		Use renewable energy to supply 50% of city electricity needs by 2025		Reduce local government GHG emissions 80% below 1990 levels by 2050		
Grand Rapids	None		Use renewable energy to power 100% of city operations by 2025	63.34	Reduce local government GHG emissions 85% by 2030, using a 2008 baseline	7.31%	
Hartford	None		None		Reduce local government GHG emissions 26–28% by 2025, using a 2005 baseline		
Honolulu	None		Use renewable energy to power 100% of city operations by 2045	69.5	Reduce local government GHG emissions 45% by 2025, using a 2015 baseline	10.07%	

City	Energy reduction goal	Annual decrease targeted (%)	Carbon-free electricity goal	Annual increase targeted (kWh per household)	Climate change mitigation goal	Annual decrease targeted (%)	Projected progress toward goal
Houston	Reduce local government building energy use 20% by 2021, using a 2008 baseline		Continue using renewable energy to power 100% of city operations	15.3	Reduce local government GHG emissions 40% by 2030, using a 2014 baseline	5.34%	
Indianapolis	None		Use renewable energy to power 25% of city operations by 2025		Reduce local government GHG emissions 100% by 2050	2.94%	
Kansas City	Reduce local government energy use 50% by 2050		None`		Reduce local government GHG emissions 70% by 2025, using a 2000 baseline	6.63%	44.52%
Knoxville	None		None		Reduce local government GHG emissions 50% by 2030, using a 2005 baseline	3.15%	25.08%
Lansing	None		None		Reduce local government emissions 100% by 2040		
Las Vegas	Reduce local government energy use 2% annually	0.7%	Continue using renewable energy to power 100% of city operations		Reduce local government emissions 100% by 2050	3.03%	100%
Long Beach	None		None		None		
Los Angeles	Reduce local government energy use 18% by 2025, using a 2015 baseline	2.53%	Install 3 MW of solar energy on city facilities by 2025		Reduce local government GHG emissions 55% by 2025, using a 2008 baseline	3.44%	100%

City	Energy reduction goal	Annual decrease targeted (%)	Carbon-free electricity goal	Annual increase targeted (kWh per household)	Climate change mitigation goal	Annual decrease targeted (%)	Projected progress toward goal
Louisville	None		Use renewable energy to power 100% of city operations by 2035		None		
Madison	Reduce local government energy use 25% by 2030, using a 2010 baseline		Use renewable energy to power 100% of city operations by 2030		Achieve net-zero carbon for city operations by 2030	7.14%	7.06%
Memphis	None		None		Reduce local government building GHG emissions 55% and fleet GHG emissions 45% by 2035, using a 2016 baseline	3.06%	
Mesa	None		None		None		
Miami	None		None		None		
Milwaukee	None		Use renewable energy to power 25% of city operations by 2025		None		
Minneapolis	None		Use renewable energy to power 100% of city operations by 2023	47.97	Reduce local government GHG emissions 100% by 2040	5.26%	30%
Nashville	Reduce local government building resource use 40% by 2030, using a 2014 baseline		Use renewable energy to power 100% of city operations by 2041	105.53	Reduce local government GHG emissions 80% by 2050, using a 2014 baseline	2.65%	

City	Energy reduction goal	Annual decrease targeted (%)	Carbon-free electricity goal	Annual increase targeted (kWh per household)	Climate change mitigation goal	Annual decrease targeted (%)	Projected progress toward goal
New Haven	None		Continue using renewable energy to power 100% of city operations		Reduce local government GHG emissions 55% by 2030, using a 1999 baseline	2.95%	
New Orleans	None		None		None		
New York	None		Install 100 MW of solar on city-owned property by 2025	5.70	Reduce local government GHG emissions 40% by 2025, using a 2005 baseline	2.81%	42.93%
Oakland	None		Continue using 100% zero-carbon energy to power city operations		Reduce local government GHG emissions 56% by 2030, using a 2005 baseline	3.15%	69%
Orlando	Reduce local government energy use 50% by 2030, using a 2010 baseline	1.3%	Use renewable energy to power 100% of city operations by 2030	99.41	Reduce local government GHG emissions 100% by 2030, using a 2010 baseline	5%	42.89%
Oxnard	None		None		Reduce local government GHG emissions 40% by 2030, using a 2010 baseline	2.33%	
Philadelphia	Reduce local government energy use 20% by 2030, using a 2016 baseline	1.7%	Use renewable energy to power 100% of city operations by 2030	29.3	Reduce local government GHG emissions 50% by 2030, using a 2006 baseline	2.17%	17.88%

City	Energy reduction goal	Annual decrease targeted (%)	Carbon-free electricity goal	Annual increase targeted (kWh per household)	Climate change mitigation goal	Annual decrease targeted (%)	Projected progress toward goal
Phoenix	Reduce local government energy use 30% by 2030, using a 2012 baseline	2.8%	Use renewable energy to power 15% of city operations by 2025	9.11	Reduce local government GHG emissions 40% by 2025, using a 2005 baseline	3.93%	25.7%
Pittsburgh	Reduce local government energy use 50% by 2030, using a 2010 baseline	4.2%	Use renewable energy to power 100% of city operations by 2030.	150.66	Reduce local government GHG emissions 20% by 2023, using a 2003 baseline	0.46%	46.42%
Portland	Reduce local government energy use 2% annually by 2030, using a 2007 baseline	2.26%	Continue using renewable electricity to power 100% of city operations		Reduce local government GHG emissions 53% by 2030, using a 2007 baseline	4.03%	32.92%
Providence	Reduce local government energy use 30% by 2030, using a 2010 baseline	2.39%	Use renewable energy to power 100% of city operations by 2030.	18.54	Reduce local government GHG emissions 100% by 2040, using a 2015 baseline	4.17%	21.8%
Raleigh	None		Use renewable energy to meet 20% of peak load by 2030		Reduce local government GHG emissions 80% by 2050, using a 2007 baseline		
Reno	Reduce local government energy use 20% by 2025, using a 2014 baseline		None		None		
Richmond	Reduce local government energy use 1% annually, using a 2008 baseline		None		Reduce local government GHG emissions 45% by 2035, using a 2008 baseline		

City	Energy reduction goal	Annual decrease targeted (%)	Carbon-free electricity goal	Annual increase targeted (kWh per household)	Climate change mitigation goal	Annual decrease targeted (%)	Projected progress toward goal
Riverside	None		None		Reduce local government GHG emissions 49% by 2035, using a 2007 baseline	1.62%	
Sacramento	Reduce local government building energy use 25% by 2030, using a 2005 baseline		None		Reduce local government GHG emissions 49% by 2035, using a 2005 baseline	3.13%	18.6%
Salt Lake City	Reduce local government building energy use 20% by 2025, using a 2012 baseline		Use renewable energy to power 100% of city operations by 2032	87.6	Reduce local government GHG emissions 50% by 2030, using a 2009 baseline	3.88%	0%
San Antonio	Reduce local government energy use 5% by 2025, using a 2020 baseline	2.4%	Use renewable energy to power 100% of city operations by 2040		Reduce local government GHG emissions 41% by 2030, using a 2016 baseline	3.77%	60%
San Diego	Reduce local government energy use 25% by 2035, using a 2010 baseline	2.0%	Continue using renewable electricity to power 100% of city facilities		Reduce local government GHG emissions 40% by 2030, using a 2010 baseline		
San Francisco	None		Continue using renewable electricity to power 100% of city facilities		Reduce local government GHG emissions 40% by 2025, using a 1990 baseline	2.83%	37.9%
San José	None		Install 28 MW of solar energy on city buildings by 2030		Reduce local government GHG emissions 36% by 2030, using a 1990 baseline		

City	Energy reduction goal	Annual decrease targeted (%)	Carbon-free electricity goal	Annual increase targeted (kWh per household)	Climate change mitigation goal	Annual decrease targeted (%)	Projected progress toward goal
Seattle	Reduce local government energy use 40% by 2025, using a 2008 baseline	4.2%	Continue using renewable electricity to power 100% of city facilities		Reduce local government GHG emissions 40% by 2025, using a 2008 baseline	3.79%	
Springfield	None		None		None		
St. Louis	None		Use renewable electricity to power 100% of city operations by 2035		Reduce local government GHG emissions 100% by 2050, using a 2005 baseline	3.1%	51.10%
Saint Paul	None		Use renewable energy to power 50% of city operations by 2025	9.42	Reduce local government building GHG emissions 100% by 2030		
St. Petersburg	None		Use renewable energy to power 100% of city operations by 2035		Reduce local government GHG emissions 80% by 2050, using a 2016 baseline	2.51%	
Tampa	None		Use renewable energy to power 25% of city operations by 2025		None		
Toledo	None		None		None		
Tucson	None		None		Reduce local government GHG emissions 100% by 2030	9.1%	

City	Energy reduction goal	Annual decrease targeted (%)	Carbon-free electricity goal	Annual increase targeted (kWh per household)	Climate change mitigation goal	Annual decrease targeted (%)	Projected progress toward goal
Washington, DC	Reduce local government energy use 50% by 2032, using a 2012 baseline	3.40%	Use renewable energy to power 50% of city operations by 2032	764.96	Reduce local government GHG emissions 50% by 2032, using a 2006 baseline	2.78%	100%

Table F8. Percentage composition of vehicle fleet of cities

City	Internal combustion engine	Hybrid	Plug-in hybrid	Battery electric	Fuel cell	Compressed natural gas	Other	Total efficient vehicles
Albuquerque	0.812	0.046	0.007	0.003	0.000	0.000	0.132	0.056
Austin	0.716	0.027	0.022	0.046	0.000	0.006	0.184	0.095
Boise	0.887	0.089	0.004	0.018	0.000	0.002	0.000	0.111
Boston	0.807	0.135	0.012	0.038	0.000	0.000	0.008	0.185
Bridgeport	0.986	0.009	0.000	0.001	0.000	0.004	0.000	0.010
Charlotte	0.923	0.018	0.000	0.020	0.000	0.000	0.040	0.038
Cincinnati	0.922	0.057	0.000	0.007	0.000	0.000	0.014	0.064
Cleveland	0.980	0.011	0.000	0.002	0.000	0.000	0.000	0.013
Dallas	0.880	0.040	0.005	0.005	0.000	0.080	0.000	0.050
Hartford	0.923	0.054	0.000	0.000	0.000	0.022	0.000	0.054
Honolulu	0.970	0.021	0.000	0.001	0.000	0.000	0.000	0.022
Knoxville	0.965	0.005	0.005	0.000	0.000	0.000	0.025	0.010
Las Vegas	0.880	0.100	0.010	0.010	0.000	0.000	0.000	0.120
Louisville	0.973	0.025	0.001	0.001	0.000	0.001	0.000	0.026
Madison	0.430	0.120	0.010	0.060	0.000	0.001	0.370	0.190
Miami	0.897	0.100	0.000	0.004	0.000	0.000	0.000	0.103
Milwaukee	0.928	0.029	0.000	0.005	0.000	0.038	0.000	0.000
Nashville	0.781	0.151	0.000	0.018	0.000	0.000	0.050	0.169
New York	0.747	0.150	0.055	0.045	0.000	0.003	0.000	0.250
Oakland	0.670	0.130	0.000	0.000	0.000	0.150	0.050	0.130
Orlando	0.820	0.033	0.000	0.039	0.000	0.015	0.090	0.072
Philadelphia	0.867	0.057	0.000	0.075	0.000	0.001	0.000	0.132
Phoenix	0.881	0.001	0.017	0.000	0.000	0.072	0.029	0.018
Portland	0.849	0.114	0.018	0.015	0.000	0.004	0.000	0.147
Providence	0.999	0.000	0.000	0.001	0.000	0.000	0.000	0.001
Raleigh	0.885	0.094	0.002	0.014	0.000	0.001	0.005	0.110
Richmond	0.973	0.000	0.000	0.001	0.000	0.025	0.000	0.001
Riverside	0.570	0.080	0.010	0.000	0.000	0.140	0.200	0.090
Saint Paul	0.970	0.020	0.000	0.010	0.000	0.000	0.000	0.030

City	Internal combustion engine	Hybrid	Plug-in hybrid	Battery electric	Fuel cell	Compressed natural gas	Other	Total efficient vehicles
San Diego	0.794	0.069	0.021	0.027	0.000	0.029	0.059	0.117
San José	0.500	0.130	0.000	0.120	0.000	0.000	0.250	0.250
Seattle	0.648	0.116	0.041	0.126	0.000	0.000	0.068	0.283
Spokane	0.920	0.021	0.000	0.020	0.000	0.036	0.000	0.041

Cities assessed in the Scorecard that do not appear in this table did not report data or did not report complete data.

Table F9. Percentage of streetlights converted to LEDs

City	LED composition
Albuquerque	100%
Atlanta	90%
Austin	76%
Baltimore	75%
Boston	86%
Bridgeport	83%
Charlotte	25%
Chicago	85%
Cincinnati	23%
Cleveland	88.1%
Columbus	6.5%
Dallas	18.5%
Denver	63%
Detroit	100%
Durham	95%
Grand Rapids	70%
Hartford	100%
Honolulu	100%
Houston	99%
Indianapolis	99.9%
Kansas City	42%
Knoxville	100%

City	LED composition
Lansing	75%
Las Vegas	95%
Long Beach	100%
Los Angeles	98%
Madison	49%
Memphis	37%
Mesa	66%
Miami	97%
Milwaukee	15%
Minneapolis	78%
New Haven	100%
New Orleans	75%
Oakland	95%
Orlando	100%
Philadelphia	2.5%
Phoenix	100%
Pittsburgh	11%
Portland	100%
Providence	100%
Raleigh	85%
Reno	47%
Riverside	100%
Rochester	50%
Sacramento	38%
Salt Lake City	60%
San Antonio	80%
San Diego	69%
San Francisco	100%
San José	95%
Seattle	86%
Spokane	100%
Springfield	3%

City	LED composition
St. Louis	45%
St. Petersburg	100%
Toledo	100%
Washington, DC	48.5%

Cities assessed in the Scorecard that do not appear in this table did not report data or did not report complete data.

Table F10. City procurement and construction disparity studies within the last five years

City	Disparity study within last five years
Akron	Disparity study with implementation evidence
Albuquerque	None
Atlanta	Disparity study
Aurora	None
Austin	None
Baltimore	Disparity study with implementation evidence
Boise	None
Boston	Disparity study
Bridgeport	None
Charleston	None
Charlotte	Disparity study with implementation evidence
Chattanooga	Disparity study
Chicago	Disparity study
Chula Vista	None
Cincinnati	None
Cleveland	None
Columbus	Disparity study with implementation evidence
Dallas	Disparity study with implementation evidence
Denver	Disparity study with implementation evidence
Des Moines	None
Detroit	None
Durham	None

City	Disparity study within last five years
Fayetteville	None
Fresno	None
Grand Rapids	None
Hartford	None
Honolulu	None
Houston	Disparity study with implementation evidence
Indianapolis	Disparity study with implementation evidence
Kansas City	Disparity study
Knoxville	Disparity study
Lansing	None
Las Vegas	None
Long Beach	None
Los Angeles	None
Louisville	None
Madison	Inclusive procurement and contract tracking and implementation evidence
Memphis	Disparity study with implementation evidence
Mesa	None
Miami	None
Milwaukee	None
Minneapolis	None
Nashville	None
New Haven	None
New Orleans	Disparity study with implementation evidence
New York	Disparity study
Oakland	Inclusive procurement and contract disparity study within larger equity study
Orlando	None
Oxnard	None
Philadelphia	Disparity study
Phoenix	None
Pittsburgh	Inclusive procurement and contract tracking and implementation evidence
Portland	Disparity study with implementation evidence

City	Disparity study within last five years
Providence	None
Raleigh	Disparity study
Reno	None
Richmond	None
Riverside	None
Rochester	None
Sacramento	None
Saint Paul	None
Salt Lake City	None
San Antonio	Disparity study with implementation evidence
San Diego	Disparity study
San Francisco	Inclusive procurement and contract tracking and implementation evidence
San José	None
Seattle	None
Spokane	None
Springfield	None
St. Louis	None
St. Petersburg	Disparity study with implementation evidence
Tampa	None
Toledo	Disparity study with implementation evidence
Tucson	None
Washington, DC	Disparity study with implementation evidence

Table F11. Actions taken in city procurement and construction processes to advance high-quality jobs

City	Screen contractors for a history of violating workplace laws or other regulatory protections	Ensure contractors allow returning citizens to apply to their work	Establish project labor agreements with contractors	Establish collective bargaining agreements with unions
Akron			x	x
Albuquerque				
Atlanta	x			
Aurora	x			

City	Screen contractors for a history of violating workplace laws or other regulatory protections	Ensure contractors allow returning citizens to apply to their work	Establish project labor agreements with contractors	Establish collective bargaining agreements with unions
Austin				
Baltimore				
Boise				
Boston		x		
Bridgeport				
Charleston				
Charlotte	x			
Chattanooga				
Chicago		x	x	
Chula Vista				
Cincinnati	x		x	
Cleveland	x	x		x
Columbus	x		x	x
Dallas	x	x		
Denver				
Des Moines				
Detroit		x		
Durham				
Fayetteville				
Fresno				
Grand Rapids		x		
Hartford	x			
Honolulu			x	
Houston	x			
Indianapolis				
Kansas City				x
Knoxville				
Lansing				
Las Vegas				

City	Screen contractors for a history of violating workplace laws or other regulatory protections	Ensure contractors allow returning citizens to apply to their work	Establish project labor agreements with contractors	Establish collective bargaining agreements with unions
Long Beach				
Los Angeles			x	
Louisville				
Madison	x	x		
Memphis				
Mesa				
Miami	x			
Milwaukee	x	x		
Minneapolis				
Nashville				
New Haven	x			
New Orleans	x			
New York	x	x	x	
Oakland		x	x	
Orlando				
Oxnard				
Philadelphia				
Phoenix				
Pittsburgh			x	x
Portland				
Providence				
Raleigh				
Reno				
Richmond				
Riverside				
Rochester				
Sacramento		x		
Saint Paul	x		x	
Salt Lake City				

City	Screen contractors for a history of violating workplace laws or other regulatory protections	Ensure contractors allow returning citizens to apply to their work	Establish project labor agreements with contractors	Establish collective bargaining agreements with unions
San Antonio				
San Diego				
San Francisco			x	
San José				
Seattle			x	x
Spokane				
Springfield				
St. Louis				
St. Petersburg				
Tampa		x		
Toledo				
Tucson				
Washington, DC				

Appendix G. Data Request Respondents and External Reviewers

Table G1. City, CBO, and utility data request respondents

City	Primary city government sustainability staff respondent(s)	CBO respondent(s)	Primary electric utility respondent(s)	Primary natural gas utility respondent(s)
Akron				
Albuquerque	Kelsey Rader and Denise Gonzalez		Sharon James, Public Service Company of New Mexico	
Atlanta	John Seydel, Chandra Farley, and Michelle Midanier		Natacha Val-Gonzalez, Georgia Power	
Aurora	Jeffrey Moore		Byron Boyle, Xcel Energy	Byron Boyle, Xcel Energy
Austin	Phil Duran		Jessica Galloway, Austin Energy	
Baltimore	Amy Gilder-Busatti		Doug Gargano, BG&E	Doug Gargano, BG&E
Boise	Alex Brooks and Steve Hubble	Karyn Levin, Global Gardens		
Boston	Abraham Ferrera		Matt Garavaglia, National Grid Brian Greenfield, Eversource	Matt Garavaglia, National Grid Brian Greenfield, Eversource
Bridgeport			Hannan Khan, United Illuminating	
Charleston	Katie McKain		John Raftery and Therese Griffin, Dominion Energy	John Raftery and Therese Griffin, Dominion Energy
Charlotte	Aaron Tauber		Melissa Adams, Duke Energy Carolinas	Melissa Adams, Duke Energy Carolinas
Chattanooga				
Chicago	Angela Tovar and Gavin Bowman			Thomas Manjarres, Peoples Gas
Chula Vista	Coleen Wisniewski			

City	Primary city government sustainability staff respondent(s)	CBO respondent(s)	Primary electric utility respondent(s)	Primary natural gas utility respondent(s)
Cincinnati	Robert McCracken		Melissa Adams, Duke Energy	Melissa Adams, Duke Energy
Cleveland	Brittany Montgomery, Anand Natarajan, Sarah O'Keeffe, and Tim Kovach	Divya Sridhar, Cleveland Neighborhood Progress		
Columbus	Alana Shockey, Erin Beck, and Grayson Hart		Brian Billing and Katie Mast, American Electric Power	
Dallas	Chris Morris	Evelyn Mayo, Downwinders at Risk		Chris Felan, ATMOS Energy
Denver	Elizabeth Babcock		Byron Boyle, Xcel Energy	Byron Boyle, Xcel Energy
Des Moines			David McCammant, MidAmerican Energy	David McCammant, MidAmerican Energy
Detroit		Erin Stanley, Eastside Community Network	Kevin Bilyeu, DTE Energy	Kevin Bilyeu, DTE Energy
Durham			Melissa Adams, Duke Energy	Melissa Adams, Duke Energy
Fayetteville				
Fresno				
Grand Rapids	Alison Sutter and Micah Huppert		David Zokoe, Consumers Energy	Kevin Bilyeu, DTE Energy
Hartford	Cecelia Drayton		Karlyn Lempa , Eversource Energy (Connecticut Light and Power)	Sheri Borrelli and Brian Sullivan, Connecticut Natural Gas
Honolulu			Zz Riford, Hawaii Energy	
Houston	Alisa Talley and Meredith Jennings			

City	Primary city government sustainability staff respondent(s)	CBO respondent(s)	Primary electric utility respondent(s)	Primary natural gas utility respondent(s)
Indianapolis	Morgan Mickelson			Brett McClellan, Citizens Energy Group
Kansas City	Andy Savastino			Shaylyn Dean, Lemartt Holman, and Scott Weitzel, Spire Missouri
Knoxville	Grace Levin		Laurie Mitchell, TVA	
Lansing	Lori Welch		Anna Munie, Lansing BWL	David Zokoe, Consumers Energy
Las Vegas	Marco Velotta		Patricia Rodriguez, Britteny Abad, and Chris Belcher, Nevada Energy	Patricia Rodriguez, Britteny Abad, and Chris Belcher, Nevada Energy
Long Beach	Anna Liu			Dennis Burke, Long Beach Energy Resources
Los Angeles	Steve Machese		Craig Tranby and Arash Saidi, LADWP	Tony Chun and Priscilla Hamilton, SoCal Gas
Louisville				
Madison	Jessica Price		Mark Lydon, Madison Gas and Electric Matt Bromley, Focus on Energy	Mark Lydon, Madison Gas and Electric Matt Bromley, Focus on Energy
Memphis			Margie Borrum-Smith, Memphis Light, Gas, and Water Laurie Mitchell, TVA	Margie Borrum-Smith, Memphis Light, Gas, and Water
Mesa				
Miami	Alissa Farina, Zac Cosner, and Sonia Brubaker			
Milwaukee	Erick Shambarger and Pamela Ritger	Keviea Guiden, Citizen Action of Wisconsin	Calleb Zyduck, WE Energies Matt Bromley, Focus on Energy	Calleb Zyduck, WE Energies Matt Bromley, Focus on Energy

City	Primary city government sustainability staff respondent(s)	CBO respondent(s)	Primary electric utility respondent(s)	Primary natural gas utility respondent(s)
Minneapolis	Luke Hollenkamp		Angela Smelser, Xcel Energy	Kat Knudson and Ethan Warner, CenterPoint Energy
Nashville	Kendra Abkowitz		Laurie Mitchell, TVA	
New Haven	Steve Winter and Max Teirstein		Hannan Khan, United Illuminating	
New Orleans	Zach Monroe		Derek Mills and Ross Thevenot, Entergy New Orleans	Derek Mills and Ross Thevenot, Entergy New Orleans
New York			Ken Chan, National Grid Robert Bergen, NYSERDA	Ken Chan, National Grid Robert Bergen, NYSERDA
Oakland	Jeffrey Wong			
Orlando	Brittany Sellers			Kevin Bramley and Charles Morgan, TECO Peoples Gas
Oxnard				
Philadelphia	Nidhi Krishen		Marina Geneles and Maria Mancuso, PECO	Zach Popkin, PGW
Phoenix	Mark Hartman		Katie Mailey, Arizona Public Service	
Pittsburgh	Rebecca Kiernan, Melany Arriola, and Flore Marion		Mark Wunderly, Duquesne Light	John Catalano, Peoples Natural Gas
Portland	Kyle Diesner and Andria Jacob		Jake Wise, Portland General Electric Ben Cartwright, Energy Trust of Oregon	Ben Cartwright, Energy Trust of Oregon
Providence	Kevin Proft and David Ruggiero		Brett Feldman, National Grid	Brett Feldman, National Grid
Raleigh	Nicole Goddard	Lisa Grele Barrie, Raleigh City Farm	Melissa Adams, Duke Energy Carolinas	Melissa Adams, Duke Energy Carolinas

City	Primary city government sustainability staff respondent(s)	CBO respondent(s)	Primary electric utility respondent(s)	Primary natural gas utility respondent(s)
Reno	Suzanne Groneman		Patricia Rodriguez, Britteny Abad, and Chris Belcher, Nevada Energy	Patricia Rodriguez, Britteny Abad, and Chris Belcher, Nevada Energy
Richmond			Michael Hubbard and Selma Cosic, Dominion Energy Virginia	
Riverside	Tracy Sato and Trisha Stull		Trish Stull, Riverside Public Service	Tony Chun and Priscilla Hamilton, SoCal Gas
Rochester			Tausha Wilson and Tiffany Sheffiel, Rochester Gas & Electric Robert Bergen, NYSERDA	Tausha Wilson and Tiffany Sheffiel, Rochester Gas & Electric Robert Bergen, NYSERDA
Sacramento	Jennifer Venema and Saurabh Harohalli			
Saint Paul	Kurt Schultz		Angela Smelser, Xcel Energy	Angela Smelser, Xcel Energy
Salt Lake City	Peter Nelson		Michael Snow, Rocky Mountain Power	Michael Snow, Rocky Mountain Power
San Antonio	Doug Melnick and Murray Myers		Justin Chamberlain and Nick Hooper, CPS Energy	Justin Chamberlain and Nick Hooper, CPS Energy
San Diego	Kenrick Tong, Breanne Pendergraft, and Shannon Sales			
San Francisco	Barry Hooper		Jake Richardson, PG&E	Jake Richardson, PG&E
San José	Yael Kisel and Julie Benebente		Jake Richardson, PG&E	Jake Richardson, PG&E
Seattle	Ani Krishnan, Christine Bunch, and Kristin Brown		Jennifer Finnigan and Ellen Smiley, Seattle City Light	Sarah Chan, Puget Sound Energy

City	Primary city government sustainability staff respondent(s)	CBO respondent(s)	Primary electric utility respondent(s)	Primary natural gas utility respondent(s)
Spokane	N/A	Naghmana Sherazi, APIC Spokane		
Springfield	N/A		Brian Greenfield, Eversource	Brian Greenfield, Eversource
St. Louis	Elysia Russell		Neil Graser, Ameren UE	Shaylyn Dean, Lemartt Holman, and Scott Weitzel, Spire Missouri
St. Petersburg	Whitney Blair			Kevin Bramley and Charles Morgan, TECO Peoples Gas
Tampa			Erica Perez and Mark Roche, Tampa Electric	Kevin Bramley and Charles Morgan, TECO Peoples Gas
Toledo				
Tucson	Michael Catanzaro and Fatima Luna	Bruce Plenk, Sustainable Tucson	Veronica Loeravarga, Tucson Electric Power	
Washington, DC	Brittany Whited		Dollie Banks, Pepco Ben Plotzker, DCSEU	Ben Plotzker, DCSEU

Table G2. City, CBO, and utility external reviewers

City	Primary city government sustainability staff reviewer(s)	CBO reviewer(s)	Primary electric utility reviewer(s)	Primary natural gas utility reviewer(s)
Akron				
Albuquerque				
Atlanta	John Seydel, Chandra Farley, and Michelle Midanier	Adrienne Rice, Sustainable Futures	Natacha Val-Gonzalez, Georgia Power	
Aurora				
Austin				

City	Primary city government sustainability staff reviewer(s)	CBO reviewer(s)	Primary electric utility reviewer(s)	Primary natural gas utility reviewer(s)
Baltimore			Doug Gargano, BG&E	Doug Gargano, BG&E
Boise	Alex Brooks and Steve Hubble			
Boston			Brian Greenfield, Eversource	Brian Greenfield, Eversource
Bridgeport				
Charleston				
Charlotte	Aaron Tauber			
Chattanooga			Laurie Mitchell, TVA	
Chicago				
Chula Vista				
Cincinnati		Tanner Yess, Groundwork Ohio River Valley	Melissa Adams, Duke Energy	Melissa Adams, Duke Energy
Cleveland	Brittany Montgomery, Anand Natarajan, Sarah O'Keeffe, and Tim Kovach	Divya Sridhar, Cleveland Neighborhood Progress		
Columbus	Alana Shockey, Erin Beck, and Grayson Hart			Sarah Poe, Columbia Gas of Ohio
Dallas		Evelyn Mayo, Downwinders at Risk		
Denver				
Des Moines	Jeremy Caron and Madeline Schmitt		David McCammant, MidAmerican Energy	David McCammant, MidAmerican Energy
Detroit				
Durham		Jodi Lasseter, NC Climate Justice Collective	Melissa Adams, Duke Energy	Melissa Adams, Duke Energy

City	Primary city government sustainability staff reviewer(s)	CBO reviewer(s)	Primary electric utility reviewer(s)	Primary natural gas utility reviewer(s)
Fayetteville				
Fresno				
Grand Rapids	Alison Sutter and Micah Huppert		David Zokoe, Consumers Energy	
Hartford			Eversource Energy	
Honolulu				
Houston	Alisa Talley and Meredith Jennings			
Indianapolis				
Kansas City	Andy Savastino			
Knoxville			Chasity Hobby, Knoxville Utilities Board Laurie Mitchell, TVA	Chasity Hobby, Knoxville Utilities Board
Lansing				David Zokoe, Consumers Energy
Las Vegas	Marco Velotta		Patricia Rodriguez, Britteny Abad, and Chris Belcher, Nevada Energy	Patricia Rodriguez, Britteny Abad, and Chris Belcher, Nevada Energy
Long Beach	Anna Liu			
Los Angeles	Steve Machese		Craig Tranby and Arash Saidi, LADWP	
Louisville				
Madison	Jessica Price		Mark Lydon, Madison Gas and Electric	Mark Lydon, Madison Gas and Electric
Memphis	Jared Darby		Laurie Mitchell, TVA	
Mesa				

City	Primary city government sustainability staff reviewer(s)	CBO reviewer(s)	Primary electric utility reviewer(s)	Primary natural gas utility reviewer(s)
Miami	Alissa Farina, Zac Cosner, and Sonia Brubaker			
Milwaukee	Erick Shambarger and Pamela Ritger			
Minneapolis	Luke Hollenkamp		Angela Smelser, Xcel Energy	
Nashville	Kendra Abkowitz		Laurie Mitchell, TVA	
New Haven	Steve Winter and Max Teirstein			
New Orleans	Zach Monroe			
New York				
Oakland				
Orlando	Brittany Sellers		Matthew Ferrer, Orlando Utilities Commission	
Oxnard	Kathleen Mallory			
Philadelphia				
Phoenix				
Pittsburgh	Rebecca Kiernan, Melany Arriola, and Flore Marion			
Portland	Kyle Diesner and Andria Jacob			
Providence			Brett Feldman, National Grid	Brett Feldman, National Grid
Raleigh		Lisa Grele Barrie, Raleigh City Farm		
Reno	Suzanne Groneman		Patricia Rodriguez, Britteny Abad, and Chris Belcher, Nevada Energy	Patricia Rodriguez, Britteny Abad, and Chris Belcher, Nevada Energy

City	Primary city government sustainability staff reviewer(s)	CBO reviewer(s)	Primary electric utility reviewer(s)	Primary natural gas utility reviewer(s)
Richmond				
Riverside	Tracy Sato and Trisha Stull			
Rochester	Shalini Beath and Scott Thompson			
Sacramento	Jennifer Venema and Saurabh Harohalli			
Saint Paul	Kurt Schultz		Angela Smelser, Xcel Energy	Angela Smelser, Xcel Energy
Salt Lake City				
San Antonio	Doug Melnick and Murray Myers			
San Diego	Kenrick Tong, Breanne Pendergraft, and Shannon Sales			
San Francisco	Barry Hooper			
San José				
Seattle	Ani Krishnan, Christine Bunch, and Kristin Brown			
Spokane				
Springfield			Brian Greenfield, Eversource	Brian Greenfield, Eversource
St. Louis	Elysia Russell		Neil Graser, Ameren UE	Shaylyn Dean, Lemartt Holman, and Scott Weitzel, Spire Missouri
St. Petersburg				
Tampa			Erica Perez and Mark Roche, Tampa Electric	
Toledo				

City	Primary city government sustainability staff reviewer(s)	CBO reviewer(s)	Primary electric utility reviewer(s)	Primary natural gas utility reviewer(s)
Tucson		Bruce Plenk, Sustainable Tucson	Veronica Loeravarga, Tucson Electric Power	
Washington, DC	Brittany Whited		Dollie Banks, Pepco	