

Supplementary Information

Supplementary Table 1: Measurable Equity Indicators in Analyzed Climate Action Plans

	Indicator	Equity Measurement	Metric Type	City
Transportation	Reduced biking deaths and injuries by neighborhood	Spatial	Health	New York, NY
	Expand electric car sharing options, including BlueLA, to all Los Angeles neighborhoods in the top 10% of the CalEnviroScreen	Vulnerability, Spatial	Infrastructure	Los Angeles, CA
	Reduce costs and barriers for alternative transportation among vulnerable populations	Vulnerability	Financial Investment, Infrastructure	Houston, TX
	Increase bike share trips by 100 percent and those taken by minority or low-income populations by 120 percent.	Income, Race/eth	Behavior	Philadelphia, PA
	Equitable installation of EV charging stations, including near affordable housing	Income	Infrastructure	Columbus, OH
	Income-based EV subsidies	Income	Financial Investment	Washington D.C.
	% Households 1/4 mile from bike route in East Portland compared to city	Spatial	Infrastructure	Portland, OR
	% Streets with at least one sidewalk fully paved in East Portland compared to city	Spatial	Infrastructure	Portland, OR
	% Households within 1/4 mile of frequent transit service in East Portland compared to city	Spatial	Infrastructure	Portland, OR
	ZEV (zero-emissions vehicle) adoption in frontline communities	Vulnerability	Behavior change	Oakland, CA
Total mobility infrastructure investment in frontline communities	Vulnerability	Financial Investment	Oakland, CA	
Housing	Create or preserve 50,000 income-restricted affordable housing units by 2035 and increase stability for renters	Income	Infrastructure	Los Angeles, CA
	# Retrofitted housing units in underserved communities	Vulnerability	Infrastructure	Chicago, IL
	Number of affordable housing units that meet energy standards	Income	Infrastructure	Phoenix, AZ
	Number of affordable housing units in TOD areas	Income	Infrastructure	Phoenix, AZ
	Provide critical long-term home repair in 25,000 low and moderate income single and multi-family homes by 2026	Income	Infrastructure	Philadelphia, PA
	# Of affordable housing units with 75% of new housing located within 1/2 mile of Imagine Austin activity centers and corridors	Income	Infrastructure	Austin, TX
	Incentive packages for developers of green social housing projects in LMI communities	Income	Financial Investment	Washington D.C

	Indicator	Equity Measurement	Metric Type	City
Air Quality	% Of new publicly funded affordable housing that follows zero net carbon construction guidelines	Income	Infrastructure	Boston, MA
	# Of affordable housing units built near transit	Income	Infrastructure	Oakland, CA
	# And type of building retrofits in frontline communities	Vulnerability	Infrastructure	Oakland, CA
	Decrease in PM2.5 emissions by neighborhood	Spatial	Environment	New York, NY
	Reduced truck traffic by neighborhood based on collection bins	Spatial	Infrastructure	New York, NY
	Reduce the number of annual childhood asthma-related emergency room visits in L.A.'s most contaminated neighborhoods to less than 14 per 1,000 children by 2025; and 8 per 1,000 children by 2035	Spatial	Health	Los Angeles, CA
	% asthma rates in minority communities	Race/eth	Health	San Antonio, TX
	Pollution levels and localized health impacts among vulnerable residents	Vulnerability	Ecological, Health	Oakland, CA
	50% decrease in childhood asthma-related hospital admissions in target neighborhoods, reduce disparities between neighborhoods	Vulnerability, Spatial	Health	Oakland, CA
	Disaster Risk	Number of Cool Roofs buildings by heat vulnerability index	Vulnerability	Infrastructure
Heat vulnerability index		Vulnerability	Index Score	Chicago, IL
Average temperatures by income/race		Income, race/eth	Ecological	Dallas, TX
Flood exposure by income/race		Income, race/eth	Ecological	Dallas, TX
Food & Water	Ensure all low-income Angelenos live within 1/2 mile of fresh food by 2035	Income	Infrastructure	Los Angeles, CA
	Achieve 100% enrollment of eligible households in CalFresh/SNAP	Income	Behavior	Los Angeles, CA
	Provide drinking water access at 5 sites of highest need and install or retrofit hydration stations at municipal buildings	Vulnerability	Infrastructure	Los Angeles, CA
	Funds for local food systems that feed food insecure	Vulnerability	Financial Investment	Phoenix, AZ
	tons of edible food recovered and redistributed in frontline communities	Vulnerability	Behavior	Oakland, CA
	Increased # of grocery stores in food deserts	Vulnerability	Infrastructure	Tulsa, OK
	Increase in use of the WIC program	Income	Behavior	Tulsa, OK
	Increased low-income access to healthy food at businesses and farmer's markets - number of markets accepting assistance, including SNAP and WIC	Income	Behavior	Cincinnati, OH
	% Of residents with convenient access to healthy, affordable food - measured by # food insecure households	Vulnerability	Health	Cincinnati, OH

	Indicator	Equity Measurement	Metric Type	City
Energy	Invest \$100 million in energy efficiency programs to renters and affordable housing customers	Income	Financial investment	Los Angeles, CA
	% Community renewables subscriptions in LMI residents	Income	Behavior	Chicago, IL
	% Eligible SFPUC customers on low-income rates	Income	Behavior	San Francisco, CA
	# Low-income customers enrolled in SFPUC customer programs	Income	Behavior	San Francisco, CA
	Number of low- and fixed-income residents whose energy bill becomes more predictable and affordable as a result of their participation in a Community Choice Energy program	Income	Behavior	Boston, MA
	Decrease household energy burden by 10%, focused on: all households, low-income households, multi-family low-income households, African American households, Latino households, renters	Income, race/eth	Financial investment, Infrastructure	Cincinnati, OH
Green Space	Establish 25 joint-use parks in underserved communities	Vulnerability	Infrastructure	Los Angeles, CA
	% Tree canopy coverage by neighborhood	Spatial	Infrastructure	Chicago, IL
	Tree equity standard	Vulnerability	Infrastructure	Phoenix, AZ
	Distribution of green space by race	Race/eth	Infrastructure	Austin, TX
	Increase equitable tree canopy across neighborhoods based on SVI	Vulnerability	Infrastructure	Columbus, OH
	% Households ½ mile from a neighborhood park and three miles from a community center in East Portland compared to city	Spatial	Infrastructure	Portland, OR
	Tree canopy coverage in frontline communities per CalEnviroScreen 3.0	Vulnerability	Infrastructure	Oakland, CA
Targeted tree planting in areas with the lowest tree canopies which tend to be the most disadvantaged areas - measured in # trees planted throughout city	Vulnerability	Infrastructure	Cincinnati, OH	
Green Jobs	Offer Green Jobs courses at L.A. Trade Technical College for 250 students and place them in internships	Income	Behavior	Los Angeles, CA
	% Of CleanPowerSF products and services procured from women, minority, disabled veteran, or LGBT-owned businesses	Gender, race/eth, vulnerability	Behavior	San Francisco, CA
	Number of construction work hours on public and large private projects performed by Boston residents, women, POC	Gender, race/eth, income	Behavior	Boston, MA
Public Participation	Number of minority group participants in Street Team projects	Race/eth	Behavior	Boston, MA
	Number of minority/women-owned small businesses interviewed for climate action plan	Race/eth, gender	Behavior	Boston, MA
	# Oaklanders, and frontline communities specifically, directly engaged in ECAP implementation activities	Vulnerability	Behavior	Oakland, CA

	Indicator	Equity Measurement	Metric Type	City
General Planning & Vulnerability Assessment	"Healthy places" place-based initiative: # participants in neighborhood associations in high-needs neighborhoods	Vulnerability, Spatial	Behavior	Tulsa, OK
	Improve the raw scores of CalEnviroScreen indicators of L.A. communities in the top 10% by an average of 25% by 2025; and 50% by 2035	Vulnerability	Index score	Los Angeles, CA
	Capital improvement and grant funding in underserved communities	Vulnerability	Financial investment	San Diego, CA
	Social vulnerability index	Vulnerability	Index score	Columbus, OH
	Social vulnerability index	Vulnerability	Index score	Indianapolis, IN
	% Community-endorsed plans in neighborhoods and business districts in communities with environmental justice burden as identified in EJ Communities Map	Vulnerability, spatial	Behavior change	San Francisco, CA
	Social vulnerability index	Vulnerability	Index score	Boston, MA
	# And % of community repair, resale, and sharing facilities in frontline communities	Vulnerability	Infrastructure	Oakland, CA
	"Healthy places" place-based initiative: Decrease # of vacant lots in high-needs neighborhood	Vulnerability, Spatial	Infrastructure	Tulsa, OK
	Increase # planning efforts that utilize a racial equity lens	Race/eth	Behavior	Tulsa, OK

Supplementary Table 2: List of Analyzed Cities

City	Population	Climate Action Plan	Climate Action Plan Year
New York City, NY	8,467,513	Yes	2017
Los Angeles, CA	3,849,297	Yes	2019
Chicago, IL	2,696,555	Yes	2022
Houston, TX	2,288,250	Yes	2020
Phoenix, AZ	1,624,569	Yes	2021
Philadelphia, PA	1,576,251	Yes	2021
San Antonio, TX	1,451,853	Yes	2019
San Diego, CA	1,381,611	Yes	2022
Dallas, TX	1,288,457	Yes	2020
San Jose, CA	983,489	Yes	2018
Austin, TX	964,177	Yes	2020
Jacksonville, FL	954,614	No	-
Fort Worth, TX	935,508	No	2019
Columbus, OH	906,528	Yes	2021
Indianapolis, IN	882,039	Yes	2019
Charlotte, IN	879,709	No	-
San Francisco, CA	815,201	Yes	2021
Seattle, WA	733,919	Yes	2013
Denver, CO	711,463	Yes	2018
Oklahoma City, OK	687,725	Yes	2020
Nashville, TN	678,851	No	-
El Paso, TX	678,415	No	-
Washington, D.C.	670,050	Yes	2018
Boston, MA	654,776	Yes	2019
Las Vegas, NV	646,790	No	-
Portland, OR	641,162	Yes	2015
Detroit, MI	632,464	Yes	2017
Louisville, KY	628,594	Yes	2020
Memphis, TN	628,127	Yes	2019
Baltimore, MD	576,498	Yes	2012
Milwaukee, WI	569,330	Yes	2019
Albuquerque, NM	562,599	Yes	2021
Fresno, CA	544,510	Yes	2020
Tucson, AZ	543,242	Yes (draft)	2023
Sacramento, CA	525,041	Yes (draft)	2022

City	Population	Climate Action Plan	Climate Action Plan Year
Mesa, AZ	509,475	Yes	2022
Kansas City, MO	508,394	Yes	2021
Atlanta, GA	496,461	Yes	2015
Omaha, NE	487,300	No	-
Colorado Springs, CO	483,956	No	-
Raleigh, NC	469,124	Yes	2021
Virginia Beach, VA	457,672	Yes	2020
Long Beach, CA	456,062	Yes	2022
Miami, FL	439,890	Yes	2020
Oakland, CA	433,823	Yes	2020
Minneapolis, MN	425,336	Yes	2013
Tulsa, OK	411,401	Yes	2018
Bakersfield, CA	407,615	No	-
Wichita, KS	395,699	No	-
Arlington, TX	392,786	Yes	2021
Aurora, CO	389,347	Yes	2009
Tampa, FL	387,050	Yes	2020
New Orleans, LA	376,971	Yes	2022
Cleveland, OH	367,991	Yes	2018
Anaheim, CA	345,940	Yes	2020
Honolulu, HI	345,510	Yes	2020
Henderson, NV	322,178	Yes	2009
Stockton, CA	322,120	Yes	2019
Lexington, KY	321,793	No	-
Corpus Christi, TX	317,773	No	-
Riverside, CA	317,261	Yes	2016
Santa Ana, CA	309,441	Yes	2015
Orlando, FL	309,154	Yes	2018
Irvine, CA	309,031	No	-
Cincinnati, OH	308,935	Yes	2018
Newark, NJ	307,220	Yes	2013
Saint Paul, MN	307,193	Yes	2019
Pittsburgh, PA	300,431	Yes	2018

Supplementary Table 3: Coding Reliability and Agreement Percentage

Variable	Number of Plans	Number of Independent Coders	Krippendorff's Alpha	Agreement Percentage
Does the plan address mitigation?	55	2	0.38	94.55%
Does the plan address adaptation?	55	2	0.81	92.73%
Does the plan address equity?	55	2	0.78	90.91%
Does this plan address social equity, economic equity, or both?	55	2	0.88	92.73%
APA 1: Does the plan partner with communities to exchange information about community risks?	55	2	0.70	85.45%
APA 2: Does the plan aim to empower communities through community-based participatory planning?	55	2	0.74	94.55%
APA 3: Does the plan propose funding for projects identified by communities (local knowledge)?	55	2	0.93	96.36%
APA 4: Does the plan specify prioritization of equitable procurement of planning services (disadvantaged, minority-owned, and women-owned firms and planners of all protected classes) in future projects?	55	2	0.77	94.55%
APA 5: Does the plan consider social equity in all adaptation and mitigation decisions?	55	2	0.96	98.18%
APA 6: Does the plan include equity in cost-benefit analyses?	55	2	0.89	94.55%
Do equity considerations address adaptation, mitigation, or both?	55	2	0.97	98.18%
Does the plan contain indicators to show equity goals have been met?	55	2	0.92	96.36%
Are these indicators measurable?	55	2	0.65	85.45%