

Draft Climate Action Plan Update Measures and Actions

Below is a list of draft greenhouse gas (GHG) emissions reduction measures and supporting actions under consideration for the Cupertino Climate Action Plan (CAP) update. Measures are in **bold** as headers are measures, and potential actions are listed below each Measure. The actions are a sample of potential policies or actions that would enable the City to reach the Measure objectives. Actions highlighted in red and *in italics* are more aggressive and may be needed to exceed the City's emissions targets.

Measure BE-1	Electrify 49% of existing residential buildings by 2030 and 86% by 2040
Studies & Plans	Develop a residential building electrification strategy (RBES) with a detailed existing building analysis and electrification costs analysis to identify potential equity concerns and aid in development of a residential building electrification ordinance.
Equity	Identify and partner with local community-based organizations with connections to communities of concern to assist in development of the RBES.
Engagement	Conduct engagement with the general public and targeted to communities of concern during RBES development to understand the community's concerns around electrification.
Equity	Define equity metrics for ordinance enforcement based on feedback from local low-income communities of color and structure the ordinance and permitting compliance program to meet these metrics.
Structural Change	Adopt an electrification ordinance for existing residential buildings by 2023 to be implemented through the building permit process which bans expansion of natural gas infrastructure and requires replacement of HVAC systems, hot water heaters, and other appliances to be all-electric at time of replacement, major renovation, and time of sale.
Structural Change	<i>Require [subgroup(s) of residential building owners] to electrify their natural gas appliances by 2025.</i>
Equity	Commit to electrifying the city's Below Market Rate (BMR) housing stock at a neighborhood level by 2040. Establish a plan and schedule for implementing this action by 2024.
Engagement	Enforce ordinance compliance through a comprehensive permitting compliance program which includes routine training of staff, dedicating staff time to building inspections, charging fees for noncompliance, providing easy to understand compliance checklists online and with permit applications, and facilitating permitting online.

Measure BE-1	Electrify 49% of existing residential buildings by 2030 and 86% by 2040
Engagement	Work with the local contractors, realtors, homeowners' associations, and labor unions to develop a comprehensive building code and compliance training program, including hosting workforce development trainings discussing the benefits and technical requirements of electrification.
Funding	Work with Silicon Valley Clean Energy (SVCE) and Pacific Gas and Electric Company (PG&E) to incentivize all-electric retrofits through on-bill financing.
Partnerships	Regularly communicate with PG&E and SVCE about electrification opportunities and technologies. Provide detailed information on the City website including descriptions of the health and environmental benefits of electrification, links to SVCE and PG&E resources on electrification, up-to-date lists of local contractors that perform electric retrofits, and information about the most cost-competitive residential electrification technologies currently available.
Partnerships	Natural Gas Infrastructure Pruning: Work with PG&E to identify opportunities for natural gas infrastructure pruning to reduce the chance of stranded assets (functional natural gas infrastructure with ongoing maintenance costs that has become obsolete due to electrification) and work with PG&E to identify funding for the abandonment/removal of the infrastructure.
Regional Collaboration	Devote staff time to collaborating with the County and other cities in the region to advocate for regulatory changes at the state and federal level to allow neighborhood level electrification and natural gas pruning.

Measure BE-2	Electrify 24% of existing commercial buildings by 2030 and 49% by 2040
Studies & Plans	Develop a commercial building electrification strategy (CBES) with a detailed commercial natural gas usage analysis, analysis to potential impacts to the local commercial sectors, electrification costs analysis to aid in development of a commercial building electrification ordinance. The strategy should address all major sources of building emissions including appliances, emergency power generation, and on-site electricity generation.
Engagement	Conduct engagement efforts for the commercial sector during development of the CBES to understand potential concerns and barriers to commercial electrification.
Equity	Conduct outreach to small businesses and minority-owned businesses to understand potential equity impacts of the ordinance.
Structural Change	Adopt an electrification ordinance for existing commercial buildings by 2023 to be implemented through the building permit process, which bans expansion of natural gas infrastructure and requires appliance replacements to be all-electric where technologically feasible (exceptions can be made where all-electric alternatives do not exist or are 100%+ more expensive than the natural gas-powered replacement).

Measure BE-2	Electrify 24% of existing commercial buildings by 2030 and 49% by 2040
Structural Change	Enforce ordinance compliance through the same permitting compliance program as for residential building electrification.
Structural Change	<i>Require [subgroup(s) of commercial building owners] to electrify their natural gas appliances by 2030. Municipal Measure M-1 establishes a commitment to municipal building electrification by 2030 and full facility decarbonization by 2040.</i>
Funding	Work with SVCE and PG&E to incentivize all-electric retrofits through commercial rebate programs.
Engagement	Engage with the commercial sector to identify ways the City can support commercial battery storage installations as way to replace existing fossil fuel on-site generation systems.
Partnerships	Partner with the Chamber of Commerce to inform and facilitate electrification for commercial business owners.
Funding	Facilitate funding opportunities for commercial business electrification by identifying and supporting grant opportunities available to the community.

Measure BE-3	Reduce Silicon Valley Clean Energy opt-out rates to 2% for residential and 10% for commercial by 2030 and maintain through 2040
Studies & Plans	Work with SVCE to conduct an annual analysis of opt-out rates in Cupertino to understand why residents and businesses opt out of SVCE.
Equity	<i>Offer subsidies for residents and businesses to opt in/up to SVCE's GreenPrime (100% carbon free/renewable) service.</i>
Engagement	Develop a local education program detailing and promoting the benefits of opting in to SVCE service.
Funding	Develop a program to provide SVCE green energy for households in the below market rate housing program.
Partnerships	Partner with local community organizations that focus on climate and other social causes to promote the cost efficiency and benefits of SCVE.

Measure T-1	Develop disincentives for driving single passenger vehicles to support the bicycle/pedestrian and public transit mode share goals of Measures T-2 and T-3
Studies & Plans	Conduct an analysis of the potential community impacts and benefits of implementing disincentive-based policies for driving single passenger vehicles, including a congestion charge program, limiting parking options, increased local taxes (income tax, gasoline tax, or car registration tax), and Transportation Network Company (TNC) user taxes.
Engagement	Conduct engagement efforts for the general public and targeted to communities of concern, such as seniors, the unhoused, English as a second language, and

Measure T-1	Develop disincentives for driving single passenger vehicles to support the bicycle/pedestrian and public transit mode share goals of Measures T-2 and T-3
	low-income individuals of color during analysis of the disincentive-based transportation policies to understand the community's potential concerns.
Structural Change	<i>Ban cars in high-traffic zone(s) or on individual roads in the City where other transit options are available by implementing a congestion charge that applies to passenger cars and car-sharing services like Uber and Lyft with exceptions for disabled drivers and residents of those areas.</i>
Structural Change	<i>Consistent with the intention of Senate Bill (SB) 10, allow developers to build housing without off-street parking if they are close to frequent transit service.</i>
Structural Change	<i>Eliminate or severely limit parking options for single-passenger vehicles in commercial areas of Cupertino.</i>
Structural Change	Eliminate parking minimums citywide and develop parking maximums and price all public parking spaces for all areas of Cupertino based on available transportation options, travel demand, and land use.
Equity	Define equity metrics for implementation of disincentives based on feedback from local low-income communities of color and structure the disincentive programs to meet these metrics.
Funding	<i>Fund active and public transit programs through an income-based tax or local gasoline tax.</i>
Funding	<i>Implement a gasoline/diesel car registration tax of \$60-100 starting in 2023.</i>
Funding	<i>Implement a Transportation Network Company (TNC) user tax which would put a small fee on the use of Uber and Lyft and generate funds to pay for transit and mobility infrastructure.</i>
Regional Collaboration	Track program results and share these with neighboring jurisdictions and the County to collaborate on extending these programs within the County.

Measure T-2	Develop and implement an Active Transportation Plan to achieve 15% of bicycle mode share by 2030 and 25% by 2040
Structural Change	Continue to implement the 2018 Pedestrian Plan and the 2016 Bicycle Transportation Plan's prioritized list of projects with accelerated completion of all planned bike paths by 2030.
Structural Change	Repaint arterial, minor collector, and major collector roads (as mapped in the 2016 Bicycle Transportation Plan) without existing designated bike lanes to include bike lanes and limit existing car lanes/travel where determined to be feasibly safe.
Structural Change	Evaluate and update the City's Zoning Code, Transportation Demand Management Ordinance, and California Green Building Code to ensure the City requires installation of bicycle parking for new commercial development and retrofits.

Measure T-2	Develop and implement an Active Transportation Plan to achieve 15% of bicycle mode share by 2030 and 25% by 2040
Partnerships	Engage the Bicycle Pedestrian Commission and Walk-Bike Cupertino to identify additional short-term and long-term bikeway and pedestrian infrastructure improvement projects to implement, such as the draft Santa Clara Valley Bicycle Superhighway.
Funding	Dedicate staff time or create a staff position for obtaining grant funding for bike network expansion.
Equity	Ensure there is equitable access to safe bicycle and pedestrian infrastructure in all areas of Cupertino. Prioritize bicycle and pedestrian infrastructure development in low-income areas with less existing bicycle and pedestrian infrastructure, especially sidewalks.
Structural Change (Pilot)	Conduct a pilot program that designates streets specifically for bikes.
Structural Change	E-bike share: Bring a docked e-bike share or e-scooter share to Cupertino with focus on placing hubs in commercial areas. Adopt an ordinance to allow and manage the mobility share.
Studies & Plans	Improve the bike parking network to reduce theft and increase rider attraction. This would include surveying existing bike parking facilities throughout Cupertino and developing a plan to improve these for implementation with preference given to improving bike parking facilities near public transit stops to improve and expand access to transit (i.e., first and last-mile access).

Measure T-3	Implement public and shared transit programs to achieve 35% of public transit mode share by 2030 and 40% by 2040
Studies & Plans	Conduct a study to determine transit priority corridors and determine best potential locations for Via expansion, Valley Transit Authority (VTA) expansion, and designated streets.
Structural Change (Pilot)	Conduct a free public transit pilot program for students, foster youth, and unhoused youth in Cupertino that makes it free for participants to travel via VTA and Via with funding from [X].
Structural Change (Pilot)	Include public transit in the designated streets pilot program.
Structural Change	Expand the existing local shuttle program (Via Cupertino); add bike racks to the fleet to facilitate greater connection within the existing bikeway network.
Structural Change	Require all employers to develop a Transportation Demand Management (TDM) Plan. TDM plans should include money-based incentives for employees to bike, walk, carpool, or take the bus to work. Require large employers (more than 25 employees) to subsidize biking, walking, or bus travel.
Funding	Dedicate staff time or create a staff position for supporting Valley Transportation Authority (VTA) in obtaining grant funding for region-wide service expansion.

Measure T-4	Increase passenger zero-emission vehicle (ZEV) adoption to 35% by 2030 and 100% by 2040
Studies & Plans	Conduct a survey of existing publicly accessible electric vehicle chargers and their locations and identify a prioritized list of locations for new electric vehicle charging stations with particular consideration for equitable distribution of chargers near multi-unit housing.
Structural Change	Add 1,000 new publicly accessible Level 2 and 3 electric vehicle charging ports to the city by 2030.
Structural Change	<i>Require larger residential rental building owners (more than 20 tenants) and large commercial building owners (more than 10,000 square feet) to install working electric vehicle chargers in 20% of parking spaces.</i>
Structural Change	Complete alignment of Cupertino's permit process with the Statewide AB1236 Electric Vehicle Charging Station Permit Streamlining.
Structural Change	Support GIGcar or similar shared vehicle service in expanding to Cupertino; collaborate with neighboring jurisdictions and the County to do the same to create a larger connected network of GIGcars.
Equity	Pursue affordable, zero-emission vehicle (ZEV) car share to serve affordable housing and/or multifamily developments with a priority to target low-income communities of color.
Engagement	Conduct engagement efforts in coordination with community-based organizations that are targeted to low-income communities of color to understand the community's concerns needs for higher adoption rates of ZEVs.
Partnerships	Work with SVCE and PG&E to incentivize electric vehicle charger installations through on-bill financing.
Partnerships	Work and collaborate with major employers to promote ZEV adoption within major private and employee fleets in the city.
Equity	Coordinate with community-based organizations, agencies, and non-profits to conduct ZEV education events for low-income communities that would include information on costs/benefits of owning ZEVs, steps on how to receive incentives for ZEVs, and other benefits.

Measure T-5	Increase commercial zero-emission vehicle (ZEV) adoption to 20% by 2030 and 100% by 2040
Studies & Plans	Conduct an investigation of commercial vehicle fleets in Cupertino and identify employers to target for accelerating ZEV adoption. Develop a plan to for City-supported accelerated fleet electrification.
Engagement	Engage local employers to identify opportunities for accelerated fleet electrification.
Structural Change	Implement the accelerated commercial ZEV adoption plan.

Measure T-5	Increase commercial zero-emission vehicle (ZEV) adoption to 20% by 2030 and 100% by 2040
Funding	Identify and implement incentives for commercial fleet electrification. This could include local tax breaks.

Measure T-6	Electrify or otherwise decarbonize 25% of off-road equipment by 2030 and 100% by 2040
Studies & Plans	Conduct an investigation of off-road equipment fleets in Cupertino and identify fleets with the highest decarbonization potential.
Funding	Partner with Bay Area Air Quality Management District (BAAQMD) to expand rebate and incentive programs for upgrading off-road equipment and switching to biofuels.
Partnerships	Partner with SVCE and the County to expand the existing electrical landscaping equipment program to other off-road equipment types.

Measure W-1	Reduce community-wide landfilled organics 80% by 2025 and 90% by 2040 compared to 2018 levels
Structural Change	Route collected landfilled waste through a Materials Recovery Facility (MRF) to increase diversion before final disposal.
Structural Change/ Education/ Partnerships	Identify high contamination neighborhoods and work with contracted hauler to develop and implement a comprehensive monitoring and quality control program with a focus on consumer behavior change.
Education	Bin Optimization: Provide technical assistance to all sectors to ensure that bins are the appropriate capacity, conveniently located, are consistent in color by waste stream, and have clear signage.
Equity	Conduct targeted, multi-lingual, culturally appropriate, and geographically diverse waste diversion educational and technical assistance campaigns based on outcomes of Waste Characterization Studies (WCS) and comprehensive monitoring and quality control program. Identify untapped large sources of food waste and focus outreach on largest generators (i.e. universities, other institutions).
Funding	State Funding Opportunities: Research and pursue funding through CalRecycle.
Partnerships	Consult with organics processor and conduct informal visual organics audits to identify contamination issues that need to be addressed.
Partnerships	Work with hauler to determine data necessary to meet zero waste goals and establish protocol for regular collection and reporting of associated metrics.
Studies & Plans	Continue City's waste construction and demolition (C&D) waste diversion requirements and determine feasibility to expand City's C&D waste diversion requirements.

Measure W-1	Reduce community-wide landfilled organics 80% by 2025 and 90% by 2040 compared to 2018 levels
Studies & Plans	Conduct comprehensive feasibility study across all sectors and waste streams to understand the entire waste system in Cupertino – from generation to disposal (e.g., common waste sources, collection and disposal methods, common contaminants, current infrastructure) and use findings to establish plan for to increase organics diversion and reduce contamination.

Measure W-2	Reduce community-wide landfilled inorganics 35% by 2030 and 90% by 2040 compared to 2018 levels
Structural Change	Conduct regular waste characterization studies (WCS) of all waste streams to inform targeted campaigns and policy. The WCS is foundational to evaluate progress, hone approaches, and customize outreach/policy.
Engagement	Conduct targeted, multi-lingual, culturally appropriate, and geographically diverse waste prevention educational and technical assistance campaigns based on outcomes of WCS. Identify untapped large sources of food waste and focus outreach on largest generators (hospitals, universities, other institutions).
Equity	Food Recovery Programs: Create an inventory of businesses and organizations that generate edible food, transport edible food, and accept edible food for donation. Collaborate with identified businesses and organizations to create incentivized food recovery programs.
Funding	CalRecycle Food Waste Prevention and Rescue Grants: Leverage CalRecycle support for projects that prevent food waste or rescue edible food.
Partnerships	Partner with local organizations, schools, and libraries to establish pop-up repair cafes for commonly broken and easily repaired items.
Partnerships	Work with the business community to design and promote extended producer responsibility such as take-back programs.
Studies & Plans	Conduct a study to determine environmental impacts of diaper disposal versus water impact of reusable diapers.

Measure WW-1	Reduce per capita water consumption 15%
Structural Change	Adopt an ordinance for installation of dual-plumbing water systems that utilize greywater for irrigation at new residential construction, including accessory dwelling units (ADUs). In doing so the City will: <ul style="list-style-type: none"> - Engage with builders and developers to provide information on the new requirements for residential new construction - Develop and adopt an ordinance based on the available model ordinances.
Engagement	Develop a public engagement campaign to promote the available rebates through the Graywater Laundry-to-Landscape program, including educating residents on the benefits of dual-plumbing greywater systems and their

Measure WW-1	Reduce per capita water consumption 15%
	connection to climate resilience and greenhouse gas (GHG) emissions reductions.
Equity	Perform targeted outreach to low-income, BIPOC, and older-adult households to provide free water conservation devices through the Santa Clara Valley Water.

Measure WW-2	Capture wastewater emissions
Funding	Dedicate staff time or create a staff position for supporting the San Jose-Santa Clara Regional Wastewater Facility in obtaining grant funding for methane capture or other GHG reduction infrastructure. Explore opportunities related to methane capture and conversion to biofuel through the state's Low Carbon Fuel Standard program.
Regional Collaboration	Collaborate with the cities of San Jose, Santa Clara, Campbell, Los Gatos, Monte Sereno, and Saratoga, and the County to advocate and support GHG reductions at the facility.

Measure CS-1	Increase carbon sequestration by planting 24,000 new trees throughout the community by 2030
Studies & Plans	Develop an Urban Forest Management Plan (UFMP) based on the completed tree canopy assessment that identifies the framework and strategy for planting 24,000 new trees by 2030.
Engagement	Identify and partner with local community-based organizations with connections to low-income communities of color to assist in development of the UFMP to ensure equity is prioritized as part of the plan.
Equity	Prioritize low-income areas of Cupertino with less existing tree canopy for tree plantings.
Structural Change	Implement the UFMP to plant 24,000 new trees by 2030.
Funding	Dedicate staff time or create a staff position for obtaining grant funding for tree planting.

Measure CS-2	Increase carbon sequestration from Cupertino's natural landscapes
Studies & Plans	Study options to manage Cupertino's open spaces, parklands, and fields to sequester more carbon.

Measure M-1	Decarbonize 100% of municipal buildings by 2030 and remaining municipal facilities by 2045
Studies & Plans	Develop a plan to electrify all municipal buildings by 2030 and decarbonize any remaining municipal facilities by 2040. The Plan will include an inventory of fossil fuel-powered municipal building equipment, low/zero-carbon technologies available for replacing the equipment (where available) and a short and long-term schedule for completion.
Studies & Plans	Evaluate the feasibility and cost of phasing out diesel generators by 2030 to be replaced by solar and battery storage.
Structural Change	Implement the municipal building decarbonization plan to decarbonize 100% of municipal buildings by 2040.
Studies & Plans	Develop and implement a plan for retrofitting all streetlights, facility lighting, and traffic signals to LEDs by 2040.
Structural Change	Implement an "electrify first" commitment for building projects and major retrofits of municipal buildings.
Funding	Dedicate staff time or create a staff position for obtaining grant funding for municipal building decarbonization retrofits.

Measure M-2	Procure 100% carbon free electricity for municipal operations by 2030
Structural Change	Continue to purchase SVCE's GreenPrime electricity for all municipal accounts.

Measure M-3	Increase municipally-owned renewable energy
Studies & Plans	Conduct a feasibility study to understand opportunities for installing additional solar and battery storage, or other renewable energy generation infrastructure, at municipal facilities.
Structural Change (Pilot)	Conduct a microgrid pilot program.

Measure M-4	Develop and implement a Municipal Transportation Demand Management (TDM) Plan by 2023
Studies & Plans	Conduct a detailed survey of City staff to determine baseline commute data.
Studies & Plans	Investigate opportunities for installing bike lockers and showers at municipal office buildings.
Structural Change	Provide free public transit passes to all municipal employees.
Structural Change	Develop a remote work program that encourages municipal office employees to work from home.

Measure M-4	Develop and implement a Municipal Transportation Demand Management (TDM) Plan by 2023
Structural Change	Provide cash incentives or paid time off for employees to bike, walk, and carpool to work.
Structural Change	Expand the municipal bike fleet for municipal employee usage.

Measure M-5	Electrify or otherwise decarbonize the municipal fleet by 2040
Structural Change	Develop a plan to convert fossil fuel municipal fleet vehicles to electric or otherwise decarbonize the fleet by 2040, including a short and long-term schedule for completion.
Structural Change	Install additional EV chargers in municipal parking lots.

Measure M-6	Electrify or otherwise decarbonize all municipal off-road equipment by 2040
Studies & Plans	Complete an inventory of all municipal off-road equipment and determine which equipment types are possible to decarbonize based on existing technologies. Complete a cost analysis for decarbonizing.
Structural Change	Adopt an emissions-free equipment purchasing policy for light-duty vehicles and other smaller equipment (e.g., landscaping equipment) for all City departments.
Structural Change	As a short-term measure, procure biofuels (biodiesel and biogas) to operate municipally owned off-road equipment with no existing opportunities for decarbonization. Re-evaluate decarbonization opportunities regularly to ensure biofuels are not being used for equipment that could otherwise be decarbonized.
Funding	Dedicate staff time to obtain grant funding for decarbonization of larger off-road equipment.

Measure M-7	Update the City's Environmentally Preferred Purchasing (EPP) policy
Structural Change	Using the results of the internal Sustainable Purchasing Program working group, create an update to the City's Environmentally Preferred Purchasing (EPP) Policy. To address zero waste, the EPP policy could emphasize reduction of waste at the source, establish preferential purchasing to reusable products followed by locally compostable and/or disposable products, prioritize supplies that minimize life cycle impacts, include a default preferred products purchasing list, embed monitoring to track compliance, and include environmental and human health considerations. The EPP policy would be updated at least once every five years. The policy should prioritize purchases from local, minority-owned, veteran-owned businesses.

Measure M-7	Update the City's Environmentally Preferred Purchasing (EPP) policy
Partnerships	Continue memberships with the Sustainable Purchasing Leadership Council.
Studies & Plans	Form an internal working group to develop a Sustainable Purchasing program. At a minimum, the working group must deliver the following: (1) Program Goals and Objectives (2) Program Structure: Program Leader, staff, advisory committee, etc. (3) Implementation Plan, including such activities as updating the City's EPP Policy. (4) Reporting Structure.
Engagement	Inform all City employees with purchasing responsibilities of new requirements.

Measure M-8	Procure organic material as defined by SB 1383 requirements
Structural Change	Require City agencies to procure and apply compost generated from municipal organic waste to the exterior of suitable facilities as part of their operations.
Partnerships	Work with Association of Bay Area Governments (ABAG), SVCE, Recology and other organizations to source materials compliant with SB 1383 procurement goals.
Funding	Investigate funding opportunities for procuring.
Studies & Plans	Investigate opportunities for procuring.

Measure M-9	Reduce municipal water consumption
Studies & Plans	Continue to evaluate the existing watering/irrigation infrastructure and schedule to determine water reduction strategies.
Structural Change	Continue to implement landscaping programs that utilize drought-tolerant, Bay-friendly landscaping techniques for parks, medians, and fields.
Structural Change	Increase green stormwater infrastructure on City facilities.