Office of Sustainability

2024 Climate Action Plan

Update Summary

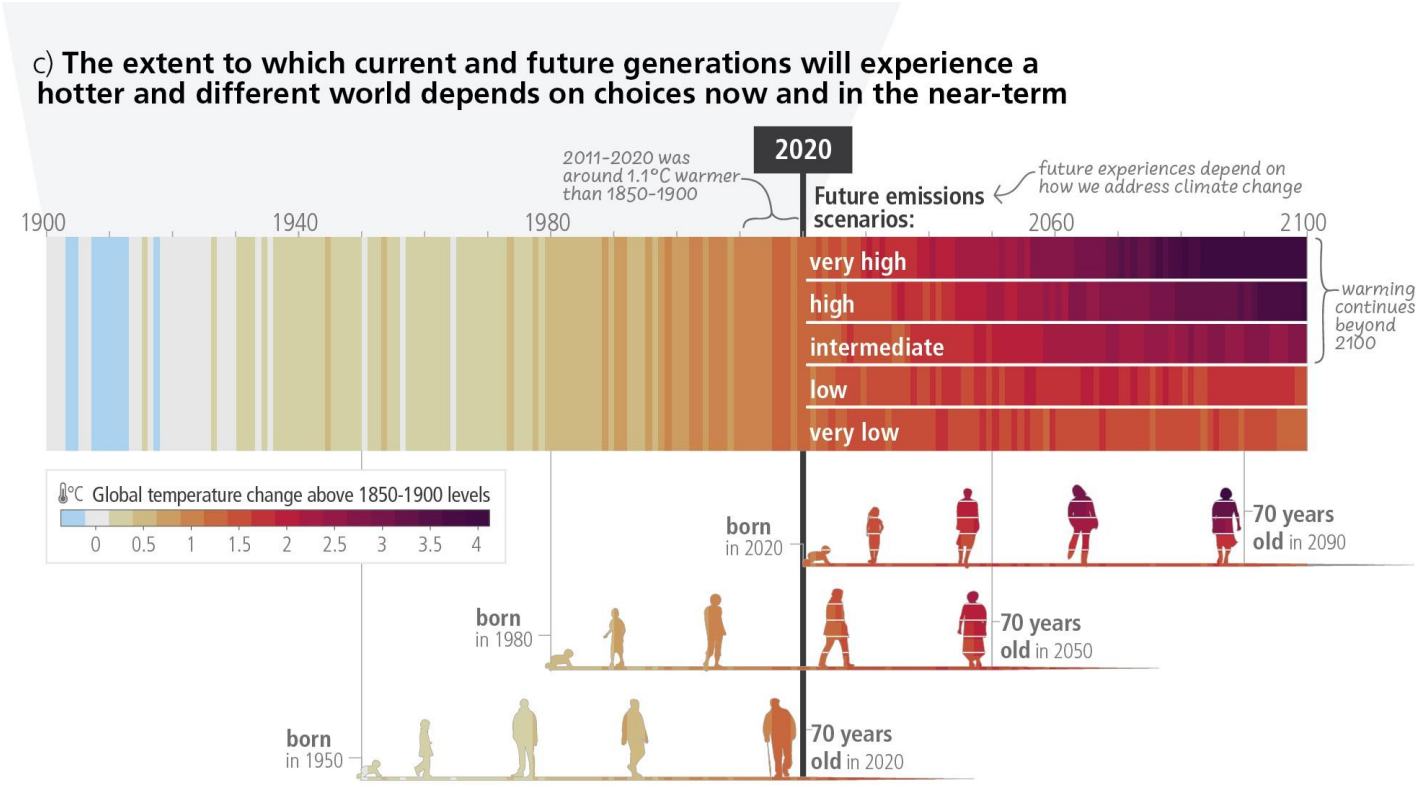
Background

The City's Climate Action Plan (CAP) showcases a path for City leaders, staff, residents, and businesses to reduce greenhouse gas (GHG) emissions and protect our community. It starts with a GHG inventory that shows where citywide emissions are coming from, then lists GHG reduction measures, estimated GHG emissions reductions, and implementation goals. The CAP also includes information about the City's efforts to prioritize equity throughout City operations and adapt to extreme weather.

This is the City's fourth CAP and continues the City's history of leading the way in adopting responsible climate policies by including a science-based reduction target for 2030 and a net zero reduction goal for 2045. The City is proud to have adopted the first climate action plan in the region in 2000, followed by the 2011 and 2017 climate action plans. Each plan has paved the way for more sustainable actions, such as more energy and water efficient buildings, increased recycling and composting, and adaptation policies to protect against climate impacts such as sea level rise.

As shown in the figure below...

Today's youth are projected to see the worst impacts from climate change unless we rapidly reduce our GHG emissions, which is the goal of this CAP.



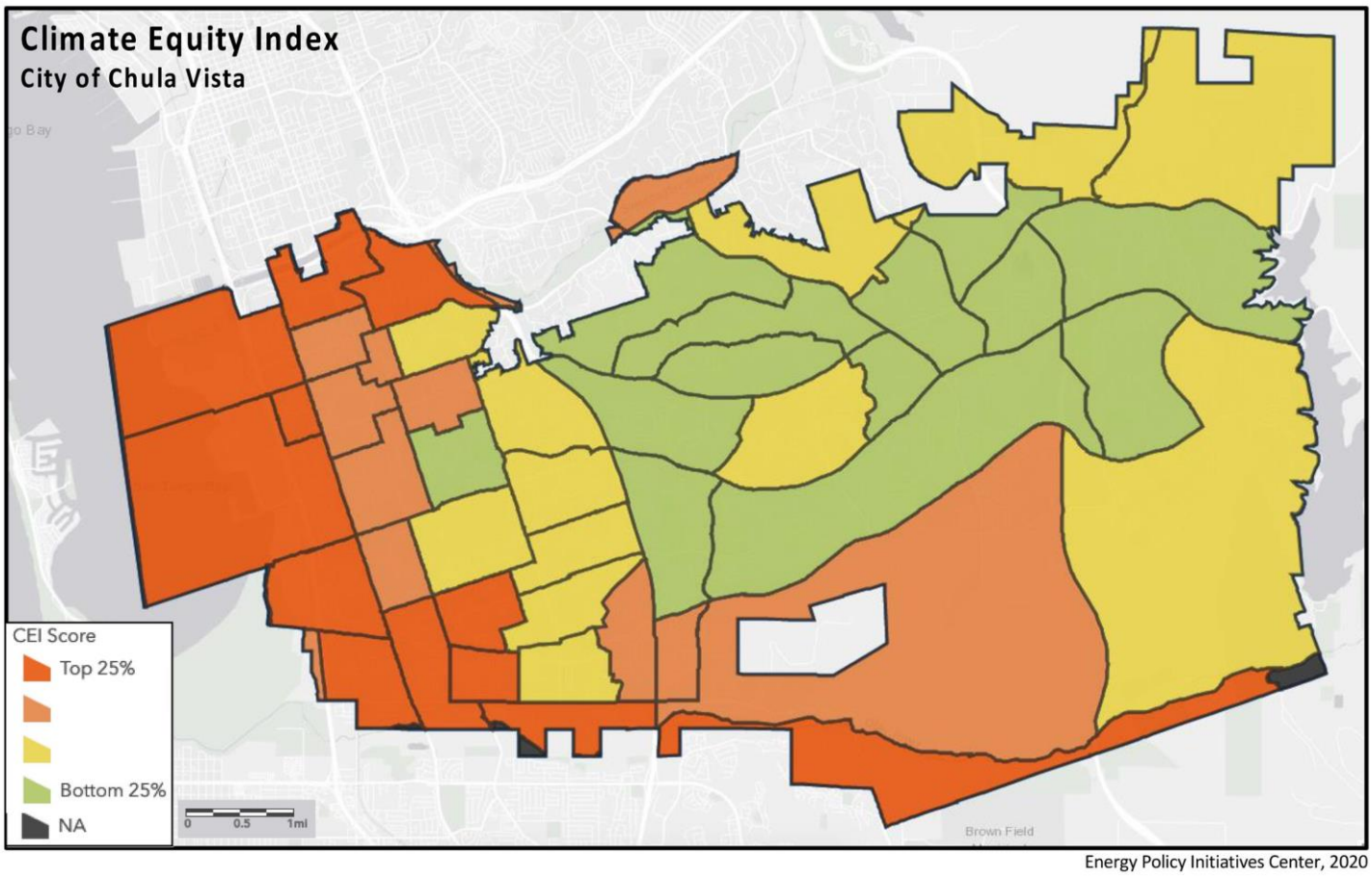
Source: IPCC 6th Report on Climate Change, www.ipcc.ch/report/ar6/syr/figures/figure-spm-1

Equity

In addition to youth, the City knows that low-income communities and people of color will be forced to face a disproportionate amount of the impacts of climate change. Those residents typically live in older neighborhoods and homes that are less prepared for extreme weather and are less able to invest in clean energy because of the high upfront costs often required.

The Climate Equity Index, shown below, was created in 2020 and will be used to prioritize CAP implementation measures and potentially create a Climate Equity Fund to support implementation in high scoring neighborhoods. To view an interactive online map please click here.

Figure 1. Climate Equity Index Scores Across the City of Chula Vista



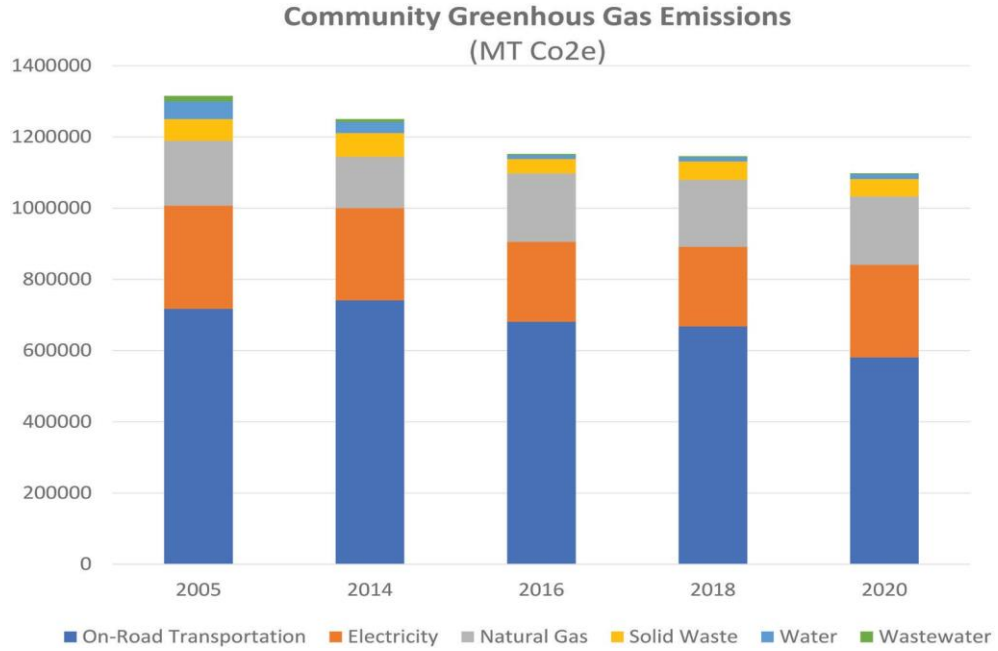
Energy Policy Initiatives Center, 2020

CHULA VISTA Community SHUTTLE

Accomplishments

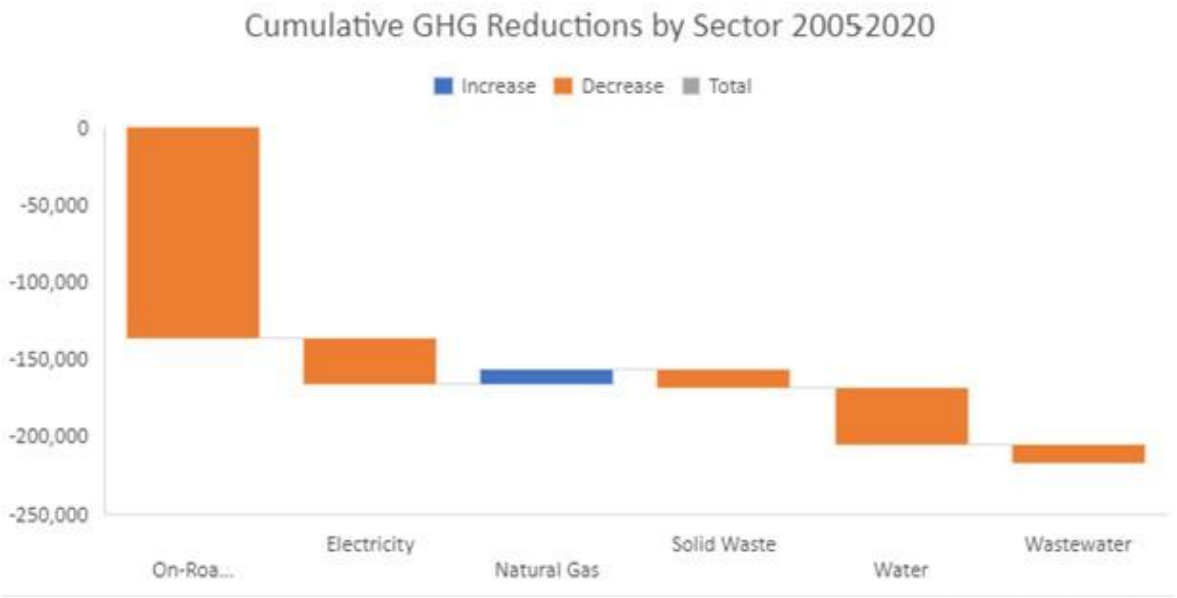
Chula Vista has reduced its GHG emissions by 17% since 2005, meeting its 2020 goal. Accounting for the 25% population growth since 2005, ***Chula Vista's per capita emissions have decreased 33%*** below 2005 levels. Some accomplishments that have helped reduce emissions are:

- **Fuel efficiency & zero emission vehicles**
  - In 2022, 32 public electric vehicle (EV) chargers were updated and 16 new EV chargers are in the process of being installed at City facilities.
  - From its launch in June 2022 through the end of 2023, approximately 28,000 trips to reduce 55,000 miles and 30 metric tons Co2e were provided by the Chula Vista EV Community Shuttle program.
- **Renewable electricity & San Diego Community Power (SDCP)**
  - Automated permitting for qualifying solar projects.
  - SDCP fully enrolled Chula Vista accounts and provided 26% cleaner electricity.
- **Organics collection**
  - 26,640 tons of organic waste collected in Chula Vista in 2023.



In addition to the community actions being taken, the City has led by example and ***reduced the GHG emissions from its own operations by approximately 80% since 1990***. This shows that deep reductions are possible, and those actions can reduce utility bills and increase community health.

The Chula Vista City Council declared a Climate Emergency in March 2022 to highlight the need for climate action. The chart below looks at cumulative emission changes since 2005 by sector and demonstrates how the City decreased emissions in every sector except natural gas.



GHG Reduction Targets

The City has joined the Race To Zero, which is a global collaboration with more than 1,000 organizations striving to meet science-based GHG reduction targets that are set to limit the impacts of the average global temperature raising above 1.5 Celsius. This requires reducing GHG emissions to net-zero by mid-century at the latest. Analysis shows that without new actions, emissions will increase as population increases.

All GHG emissions are tracked by metric tons of carbon dioxide equivalents (MTCo2e) which also includes the impact of other GHG emissions such as methane (CH4) or nitrous oxide (N2O) based on their global warming potential.

The City's GHG Reduction goals are:

- **57% below 2018 by 2030**
- **Net zero by 2045**

GHG Reduction Measures

The measures below showcase one potential path to reaching our GHG reductions goals by focusing on increasing the usage of clean electricity, promoting active transportation, reducing waste sent to the landfill, and increasing carbon sequestration. GHG emissions reductions are estimates of projected impacts from implementation and will be updated based on feedback when the plan is finalized. GHG reductions from water actions will be included in the updated analyses.

CAP Strategies	Emissions Reductions (MT CO2e)	
	2030	2045
1. Increase Use of Zero Emission/Alternative Fuel Vehicles	1,299	842
2. Reduce Fossil Fuel use	2,575	1,032
3. Reduce Vehicle Miles Traveled	9,917	18,898
4. Decarbonize Buildings	97,288	213,202
5. Increase Energy Efficiency	8,000	15,000
6. Increase Renewable and Zero-Carbon Energy	75,697	2,030
7. Reduce and Recycle Solid Waste	45,072	52,643
8. Increase Water Conservation and Decarbonization	NA	NA
9. Carbon Sequestration	12,989	12,989
Total Reduction from Federal and State Regulations	315,799	905,258
Total Reduction (Federal, State and CAP Measures)	568,637	1,221,895
Source: Energy policy Initiatives Center, University of San Diego		

Throughout the remainder of this document is information about each of the reduction strategies listed above, grouped by the sectors listed below. Each section includes background information, the individual measures in that sector and the related 2030 and 2045 goals.

- Transportation
- Energy
- Waste
- Water
- Carbon Sequestration

In the CAP, each measure will have information about the measure, its implementation goal, GHG reductions, relevant notes, and supporting actions for implementation. Measures in the energy and water sector include actions to decarbonize different buildings and water usage in the community. Decarbonization is the process of substituting the use of an energy that directly produces carbon emissions like gas, diesel, or natural gas for a fuel that does not directly produce carbon emissions, like electricity or hydrogen.

Transportation

The transportation sector produces the most emissions in Chula Vista. The measures on the next page will aim to reduce the need for vehicle trips through building compact and mixed-use neighborhoods with safe walking and biking infrastructure. When vehicle trips are needed, other measures promote the use of zero emission fuels such as electricity. Zero emission vehicles also reduce local air pollution and create a healthier community for everyone.

GHG Reduction Strategy		CAP Measures & Goals	
1	Increase Use of Zero Emission/Alternative Fuel Vehicles	1.1	Measure: Transition to a Zero-Emission Municipal Fleet
			Goal: 75% fleet light-duty vehicles and trucks to be zero emission vehicles by 2030 and 90% zero emission fleet by 2045
		1.2	Measure: Increase Electric Vehicles and Electric Vehicle Charging Infrastructure
			Goal: 68% of new light duty vehicles are Zero Emission Vehicle by 2030 and increasing to 100% by 2035
		1.3	Measure: Support Electric School Bus Conversions
			Goal: Convert 50% school buses (90 total) to electric and 100% by 2045
		1.4	Measure: Continue Chula Vista EV Community Shuttle Program
			Goal: Continue the existing EV community shuttle service through 2030 and expand its service range by 2045
2	Reduce Fossil Fuel use	2.1	Measure: Continue Traffic Signal Synchronization Program
			Goal: Retime 360 traffic signals by 2030 and 660 by 2045
		2.2	Measure: Install Traffic Calming Infrastructure
			Goal: Install 10 roundabouts by 2030 and 5 additional roundabouts by 2045
3	Reduce Vehicle Miles Traveled	3.1	Measure: Create Safer Biking and Pedestrian Options
			Goal: Implement Active Transportation Plan by 2030 and update the plan by 2045
		3.2	Measure: Increase Parking Management
			Goal: Implement Downtown Parking Management Plan Recommendation 1: Convert All Parking District Meters (Except Norman Park) to Smart Meters and 3: Increase Parking User Fees to: Meters: $0.75/hour for meters and $0.50/hour for Surface Lots by 2030 and provide electric vehicle parking at all feasible City owned parking lots by 2045.

Energy

GHG emission from natural gas and electricity represent the second largest source of emissions, with natural gas being the only sector to increase emissions since the City's 2005 baseline. Emissions from electricity are decreasing as the grid transitions to 100% clean electricity by 2035, but energy efficiency efforts are still important to reduce costs and increase grid capacity. Other efforts aim to support the conversion from natural gas to electricity to take advantage of the increasingly clean electricity supplied to Chula Vista. Installing zero emission technologies, like heat pumps and solar with battery storage, can reduce monthly bills while increasing community air quality and a building's resiliency in emergencies.

GHG Reduction Strategy		CAP Measure & Goals	
4	Decarbonize Buildings	4.1	Measure: Decarbonize New Construction
			Goal: Decarbonized all new residential buildings by 2030 and all new non-residential buildings by 2045
		4.2	Measure: Decarbonize Existing Buildings
			Goal: Reduce natural gas usage in buildings by 50% by 2030 and 95% by 2045
5	Increase Energy Efficiency	5.1	Measure: Continue the Building Energy Saving Ordinance (BESO)
			Goal: Reduce energy use intensity of buildings covered by benchmarking ordinance by 20% by 2031 and 50% by 2045
6	Increase Renewable and Zero-Carbon Energy	6.1	Measure: Decarbonize Municipal Facilities
			Goal: Use 100% clean electricity and reduce 50% natural gas use by 2030 and 100% clean electricity and eliminate all natural gas use by 2045.
		6.2	Measure: Increase Clean Energy from San Diego Community Power
			Goal: Make 100% renewable or GHG-free (e.g., SDCP Power100) the default electric supply option by 2030

Waste

By reducing organic waste sent to the landfill, the Zero Waste Plan that was adopted by City Council in 2022 will reduce methane emissions and increase local landfill capacity. Additionally, the organics recovered can be turned into compost that will help soils sequester carbon and increase water retention. By including recycled content in new products, it reduces their GHG emissions and increases local green jobs and the circular economy.

GHG Reduction Strategy		CAP Measure & Goals	
7	Reduce and Recycle Solid Waste	7.1	Measure: Implement Zero Waste Plan
			Goal: Divert 90% of waste from landfills (equivalent to 1.1 lbs. per capita per day disposal) by 2030

Water

Chula Vista has limited local water availability and being water efficient helps prepare for droughts that are common throughout California. Through water conservation and efforts by water districts to increase local water sources and decarbonize water transportation, our community can ensure a reliable and clean access to water. Emission reductions from this action are not available at this time but will be included in the full CAP.

GHG Reduction Strategy		CAP Measure & Goals	
8	Water	8.1	Measure: Increase Water Conservation and Decarbonization
			Goal: Reduce emissions from water usage by 60% by 2030 and 90% by 2045

Carbon Sequestration

As plants grow, they take carbon from the atmosphere and store it in their plant bodies or in the soil. By increasing the number of trees and native plants in the City, this measure will increase carbon sequestered in the trees and provide cooling from their shade. Applying compost or biochar to soil also increases carbon sequestration and improves soil health.

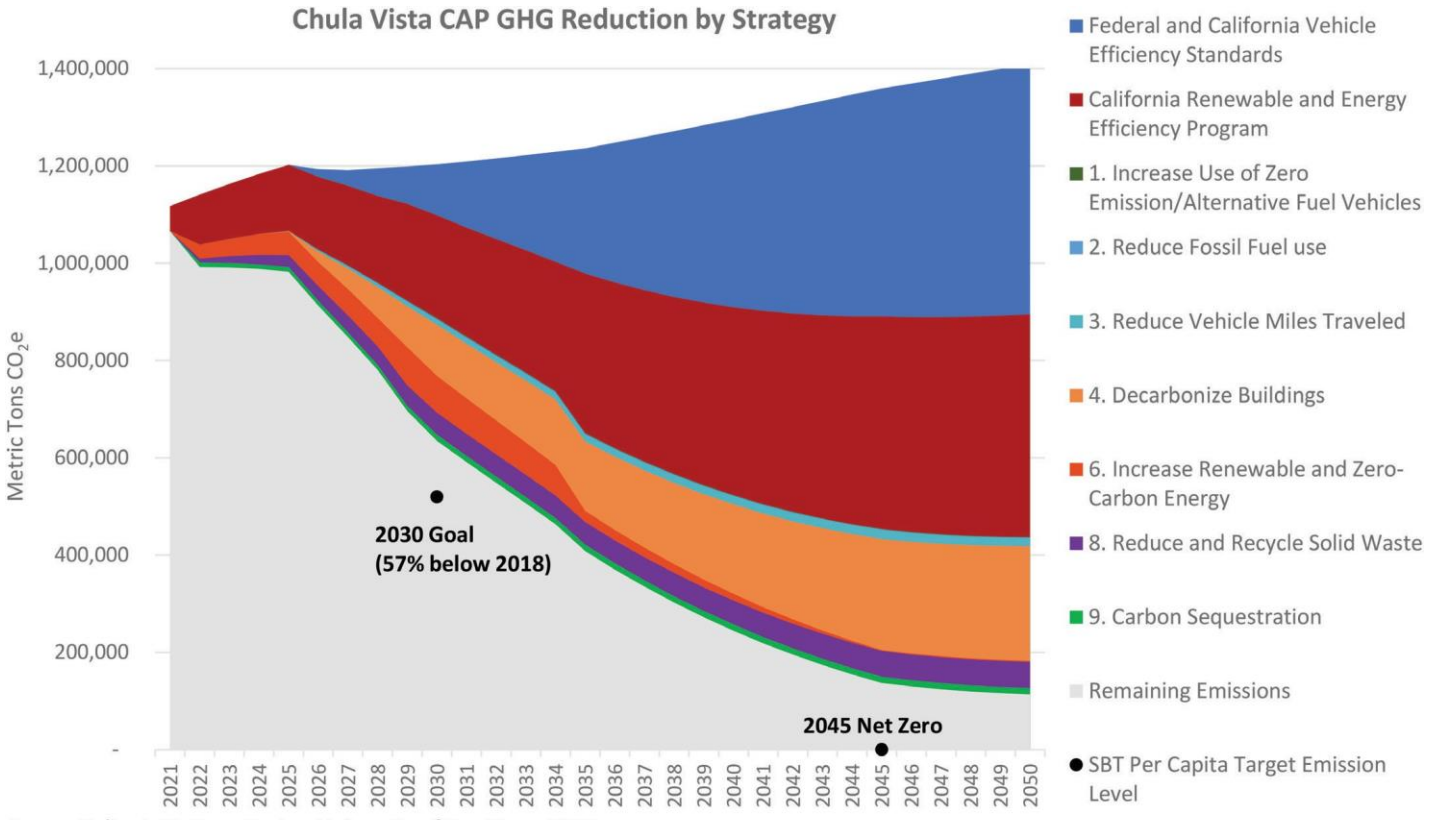
GHG Reduction Strategy		CAP Measure & Goals	
9	Carbon Sequestration	9.1	Measure: Increase Urban Canopy Cover
			Goal: Increase urban canopy cover to 25% by 2030 and 30% by 2045

If all reduction measures are fully implemented, citywide emissions are expected to be reduced by about 568,000 metric tons of C02e. (See table and graph below)

Additional reductions will still be needed to meet the City's GHG reduction goals.

Some of these reductions will come from new state, federal, and local actions that were not able to be analyzed in the CAP, such as the federal infrastructure and Inflation Reduction Act, the state's electrification incentives, and the proposed local San Diego Regional Energy Network (SDREN) energy efficiency funding. The CAP is a planning document and not CEQA certified for development streamlining. As a planning document, its adoption does not require the City to reach the CAP's GHG reduction goals but sets aspirational goals to guide and support City actions to reduce GHG emissions. Staff will bring new programs and policies aligned with the CAP GHG reduction strategies listed above to City Council as they become viable. Additionally, opportunities to implement GHG emissions reduction strategies early, where possible, will increase GHG emission reductions and help the City reach its goals.

All units MTco2e	Emission reduction goal	Emission reductions needed to reach goals	Potential Emission Reductions from Measures	Remaining Emission Reductions Needed
2030	520,000	683,000	568,637	114,545
2045	Net Zero	1,359,000	1,221,895	137,105



Energy Policy Initiatives Center, University of San Diego 2023

Adaptation

The City has worked with regional stakeholders to identify and put policies in place in the Multi-Jurisdictional Hazard Mitigation Plan for the City of Chula Vista to adapt to impacts from climate change. Policies include updating planning documents, expanding cool zones, increasing community outreach, and other efforts to reduce the impact of climate change that our community is already seeing.

Next steps

After collecting feedback from City leaders and the public with this CAP summary, staff will work with consultants to finalize the emission reduction measures and analyses and will be bringing the full draft Climate Action Plan to the Sustainability Commission and City Council in winter of 2024 - 2025.

Climate Action Resources

You do not need to wait for the full CAP to be released to take action and reduce your carbon footprint today. Resources are listed below that can help you make more sustainable actions, save money, reduce GHG emissions and protect Chula Vista's environment.

Chula Vista Climate Action Challenge - www.cvclimatechallenge.com - Join your friends and neighbors to learn about your home's carbon footprint and what actions you can take to reduce it.

Chula Vista Community Shuttle - www.chulavistaca.gov/departments/clean/residents/communityshuttle - A free electric vehicle shuttle for residents 55 or older within the northwest Chula Vista service territory.

San Diego Community Power's Electrify Your Life - https://sdcommunitypower.org/education/electrify-your-life - Information about how to electrify your house including product information, rebates, and local contractors that can do the work.

The Switch is On - https://switchison.org - Information about how to electrify your house including product information, rebates, and local contractors that can do the work.

Federal Tax Credits - www.irs.gov/credits-deductions/clean-vehicle-and-energy-credits - Take advantage of tax credits for EV, energy efficient appliances like heat pumps, solar, and batteries.

GRID Alternatives - https://gridalternatives.org/what-we-do/energy-for-all - Provides no-cost solar installations for low-income houses in qualifying areas of Chula Vista.

Golden State Rebates - https://goldenstaterebates.clearesult.com – Provides statewide rebates for qualifying high efficiency air conditioners, water heaters, and smart thermostats.

Free Food Waste Kitchen Caddy - http://www.chulavistaca.gov/departments/clean/environmental-services/residential-organic-waste-recycling - Information about how to get a free food waste kitchen caddy for any Chula Vista resident.

San Diego County Water Authority Water Conservation - www.sdcwa.org/your-water/conservation - Learn about resources and rebates that can help you save water.

SDG&E Information for Electric Vehicles - www.sdge.com/residential/lovelectric - Learn about models of electric vehicles, tax credits and incentives, and the best rate to use when charging.

Office of Sustainability

Visit www.chulavistaca.gov/cap for more information.

Send any CAP comments or feedback to:
conservation@chulavistaca.gov