

Chula Vista 2020 Greenhouse Gas Inventories

City Council
August 23rd, 2022



Climate Change Impacts

An "Extreme Heat Belt" will soon emerge in the U.S., study warns

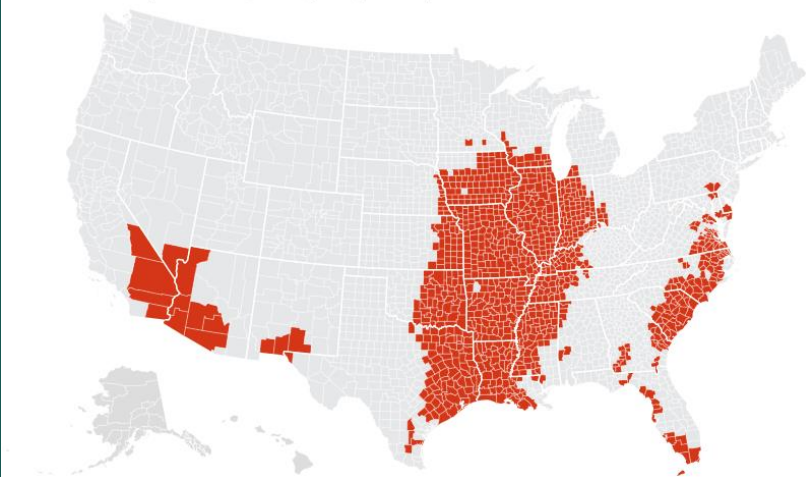


Andrew Freedman, author of [Axios Generate](#)

“in 2053, the West will have the highest chance for long durations with "local hot days," which are days that exceed the temperatures typically experienced for a particular area.”

Counties expected to experience heat indices above 125°F by 2053

Heat index is what the temperature feels like, combining humidity and air temperature



Note: Shaded counties are those that will, on average, have 0.5 days or more at or above a 125°F heat index in 2053; Data: First Street Foundation;

Map: Axios Visuals



Municipal and Community Inventories

Municipal Inventory

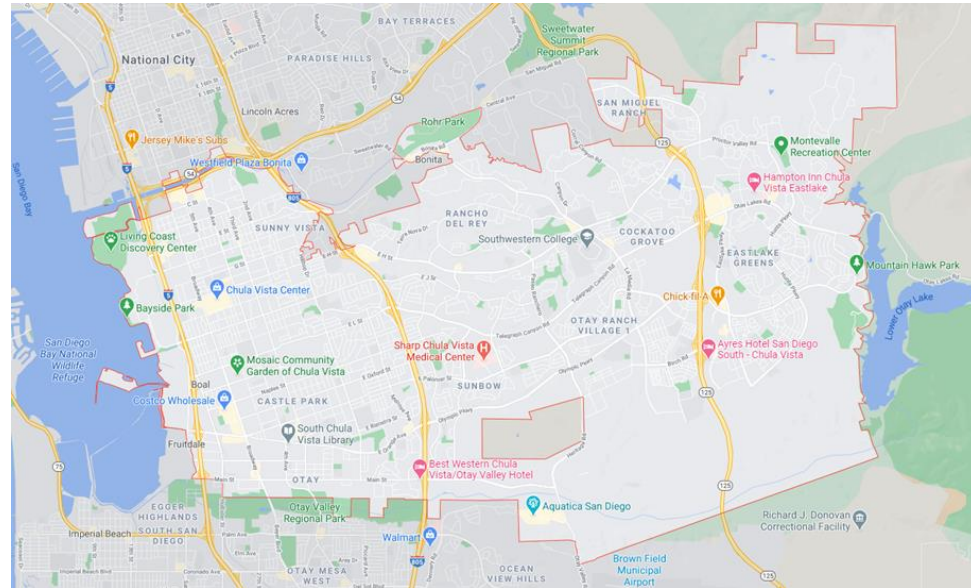
Emissions from City operations such as building energy usage, fleet fuels, waste, water and other resources used for City operations.

GHG inventories include direct emissions and do not include embedded energy in non-water resources used.



Community Inventory

Greenhouse gas (GHG) emissions from community activity, including a portion of out of jurisdictions transportation





Methodologies

Community Inventory

Partners with SANDAG and EPIC through the ReCAP Regional Climate Action Planning Framework

Municipal Inventory

Utilizes ICLEI Clear Path tool

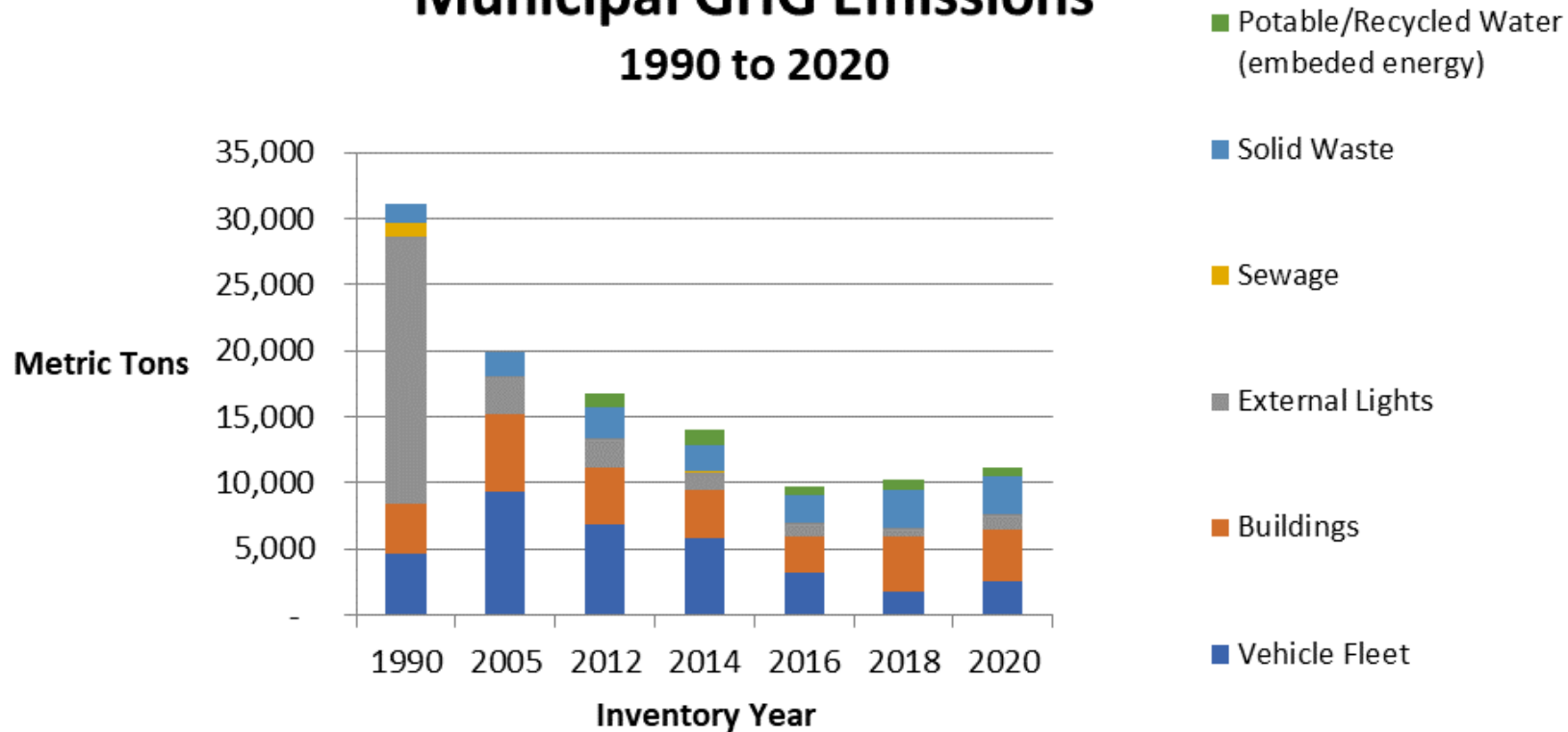


www.sandag.org/climate

1

Municipal Emissions

Municipal GHG Emissions 1990 to 2020



Total emissions
emissions

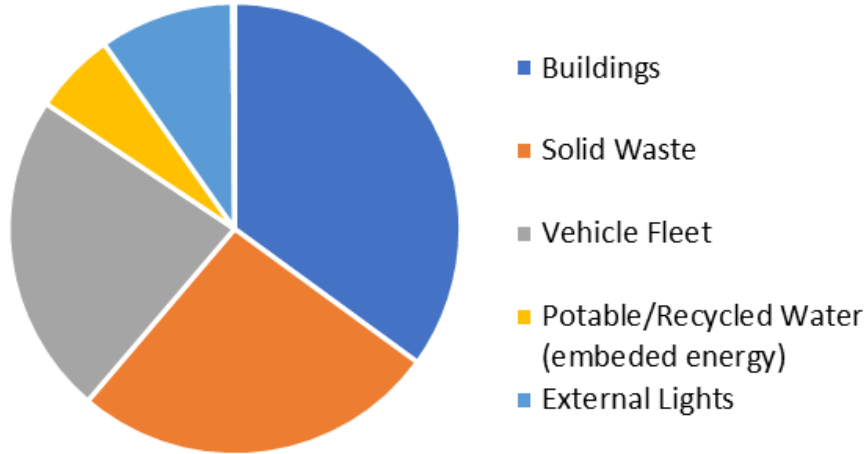
- 10% above 2018

Per Employee

- 16% below 2018



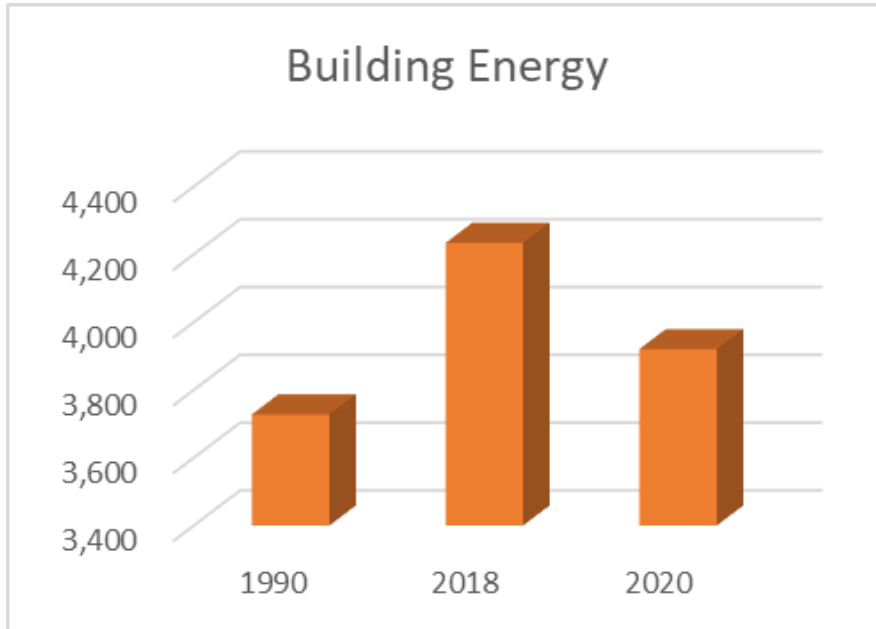
Municipal Emission Sources



Buildings.....	35.03%
Solid Waste.....	26.22%
Vehicle Fleet	23.08%
External Lights.....	9.64%
Potable/Recycled Water (embedded energy)	5.89%
Sewage.....	0.14%



Buildings



Emissions:

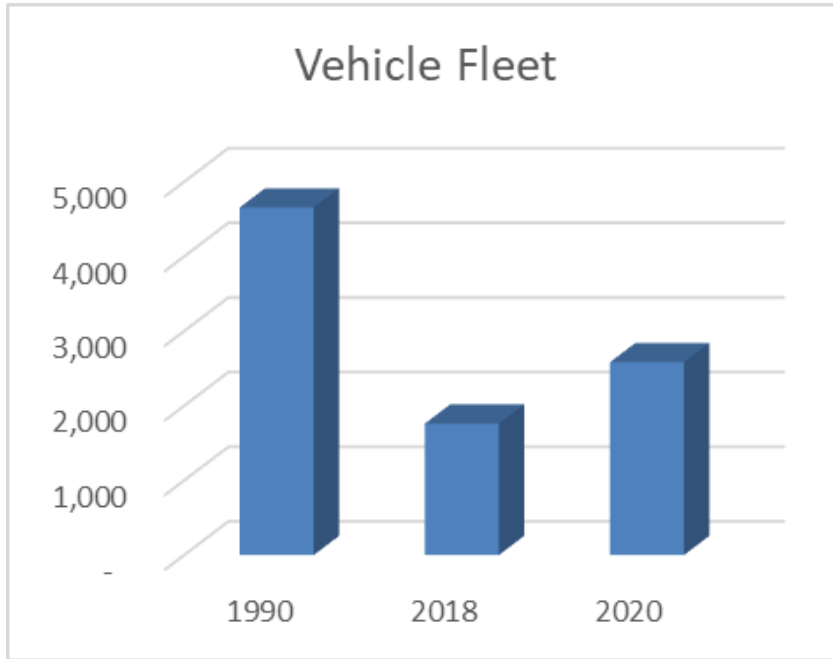
- 7% below 2018
- 5% above 1990

Projects

- Activation of solar PV to bring total up to 4.5 MW, but no batteries operating in 2020
- The Energy Goals Campaign
- San Diego Community Power 100% renewable
- Icarus Hybrid Photovoltaic/Thermal Solar



Vehicle Fleet



Emissions:

- 47% above 2018
- 45% below 1990

Projects

- 33% of fleet is Alternative fuel and continue to expand evaluate new models
- Continued growth of employee EV charging (not included in fleet inventory)

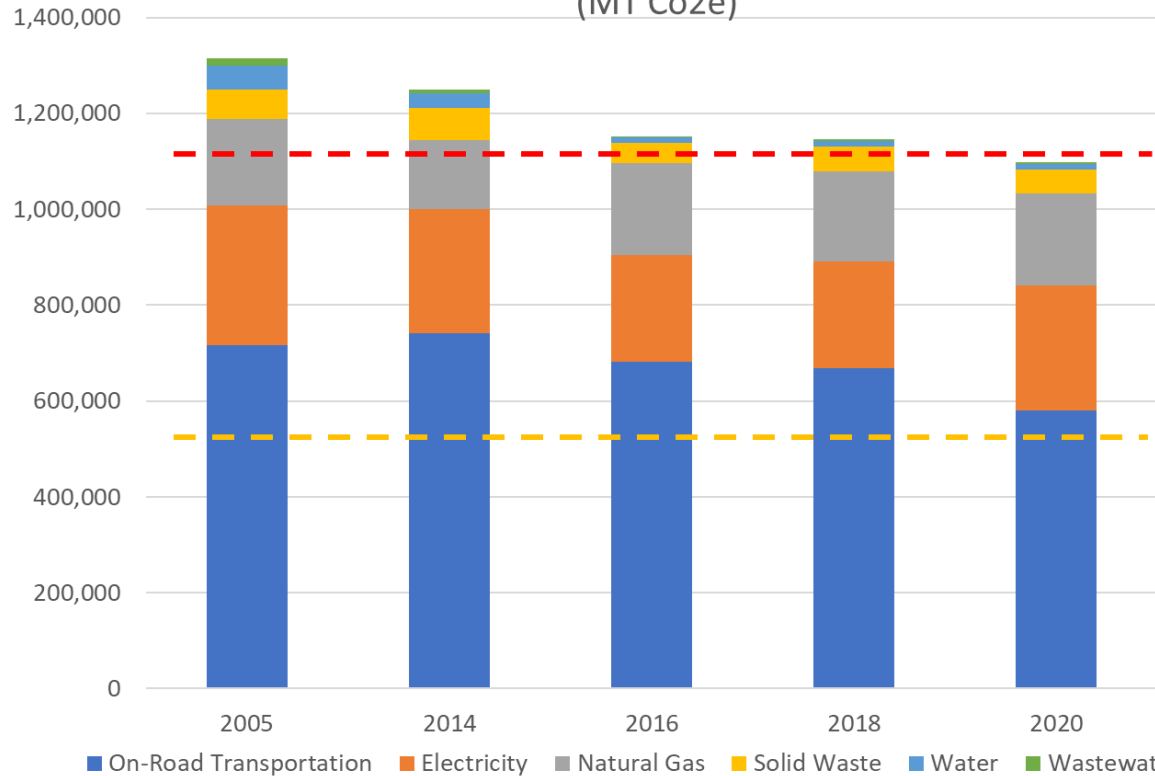
Notes

- Negative impacts on Covid-19 include need for personal distance in cars

2

Community Emissions

Community Greenhouse Gas Emissions (MT Co2e)



15% below 2005 by 2020
(1,118,374 MT Co2e)

57% below 2018 by 2030
(492,780 MT Co2e)

Total emissions

- 4% below 2018
- 17% below 2005

Population

- 2% above 2018
(+4,142)
- 25% above 2005
(+54,659)

Per Capita emissions

- 6% below 2018
- 33% below 2005





Transportation

Emissions:

- 13% below 2018
- 19% below 2005

Covid-19 impacts affected the reductions and most will rebound

When asked if they would offer telework after COVID-19 for employees at least 1 day per week

40%



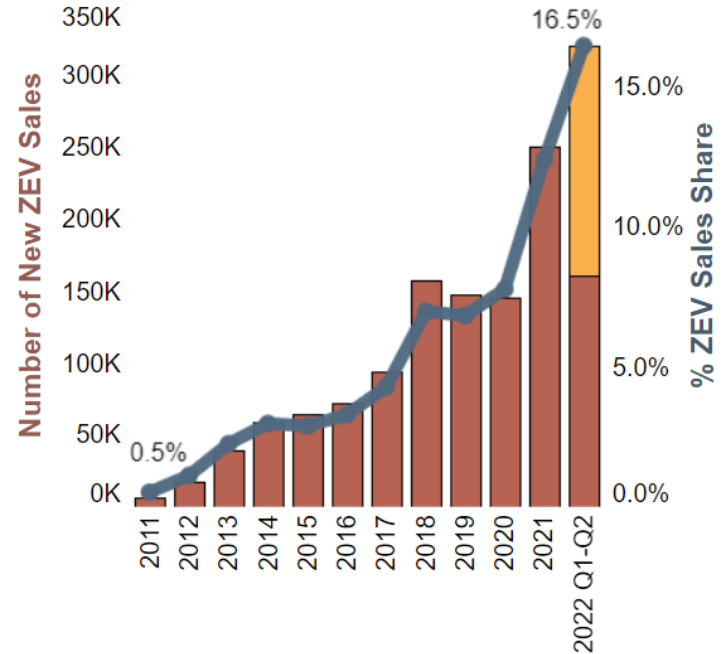
Said yes

60%



Said no

ZEV Sales Share



■ % ZEV sales share

■ Additional ZEVs in 2022 at current ra...

■ Actual annual new ZEV sales

www.energy.ca.gov/data-reports/energy-almanac/zero-emission-vehicle-and-infrastructure-statistics



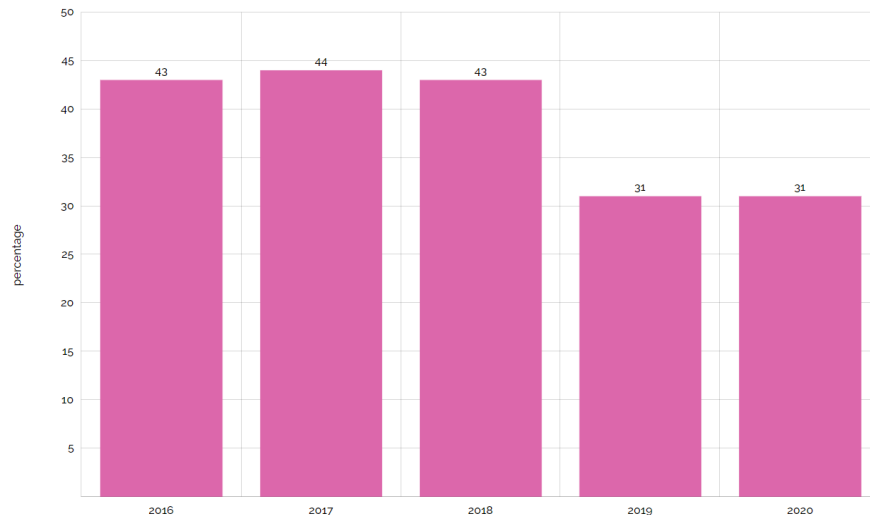
Energy

Percent of Total Retail Sales (kWh)

Electric Power Generation Mix*				
Specific Purchases	SDG&E	SDG&E EcoChoice	SDCP PowerOn	SDCP Power100
Renewable	31.3%	100%	51.7%	100%
Biomass & Biowaste	2.2%	0%	3.2%	0%
Geothermal	0%	0%	4%	0%
Eligible Hydroelectric	0%	0%	1.9%	0%
Solar	16.5%	100%	17%	50%
Wind	12.6%	0%	25.5%	50%
Coal	0%	0%	0%	0%
Large Hydroelectric	0%	0%	11.1%	0%
Natural Gas	24.4%	0%	0%	0%
Nuclear	0%	0%	0%	0%
Other	0%	0%	0%	0%
Unspecified Sources of Power**	44.2%	0%	37.2%	0%
Total	100%	100%	100%	100%

<https://sdcommunitypower.org/resources/key-documents>

City of Chula Vista - Renewables in Grid Supply (percentage)



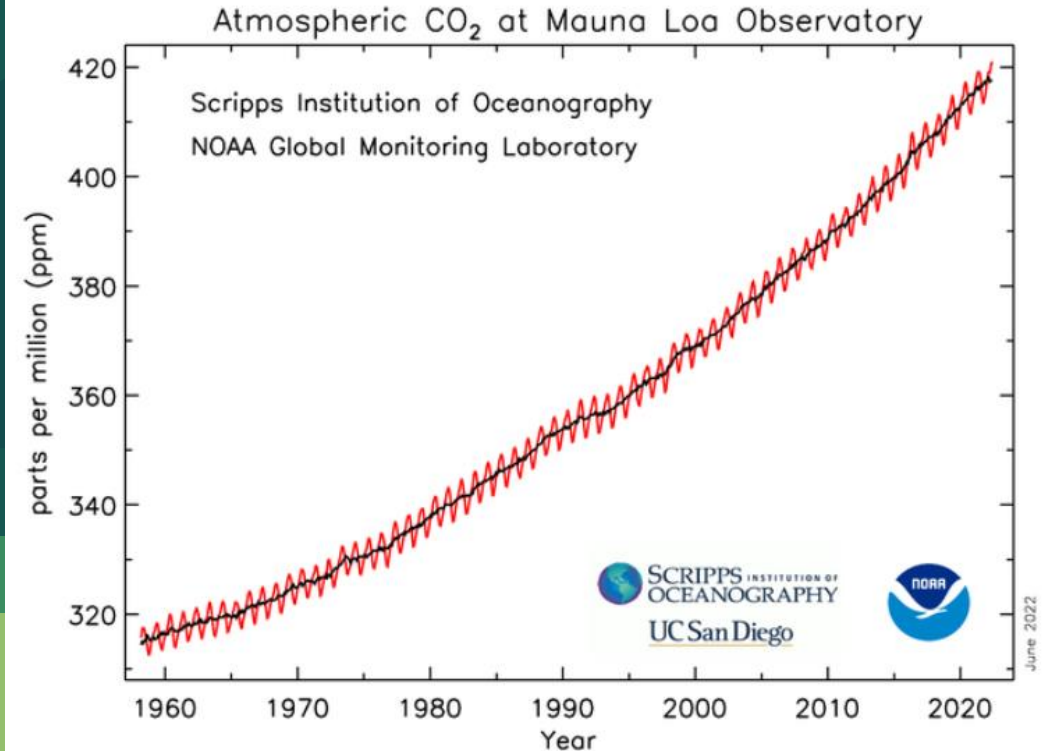
Emissions:

- 10% above 2018
- 4% below 2005
- Recent increase mainly from electricity, although we saw a 1% reduction in usage
- Natural gas continues to be the only sector above its 2005 baseline

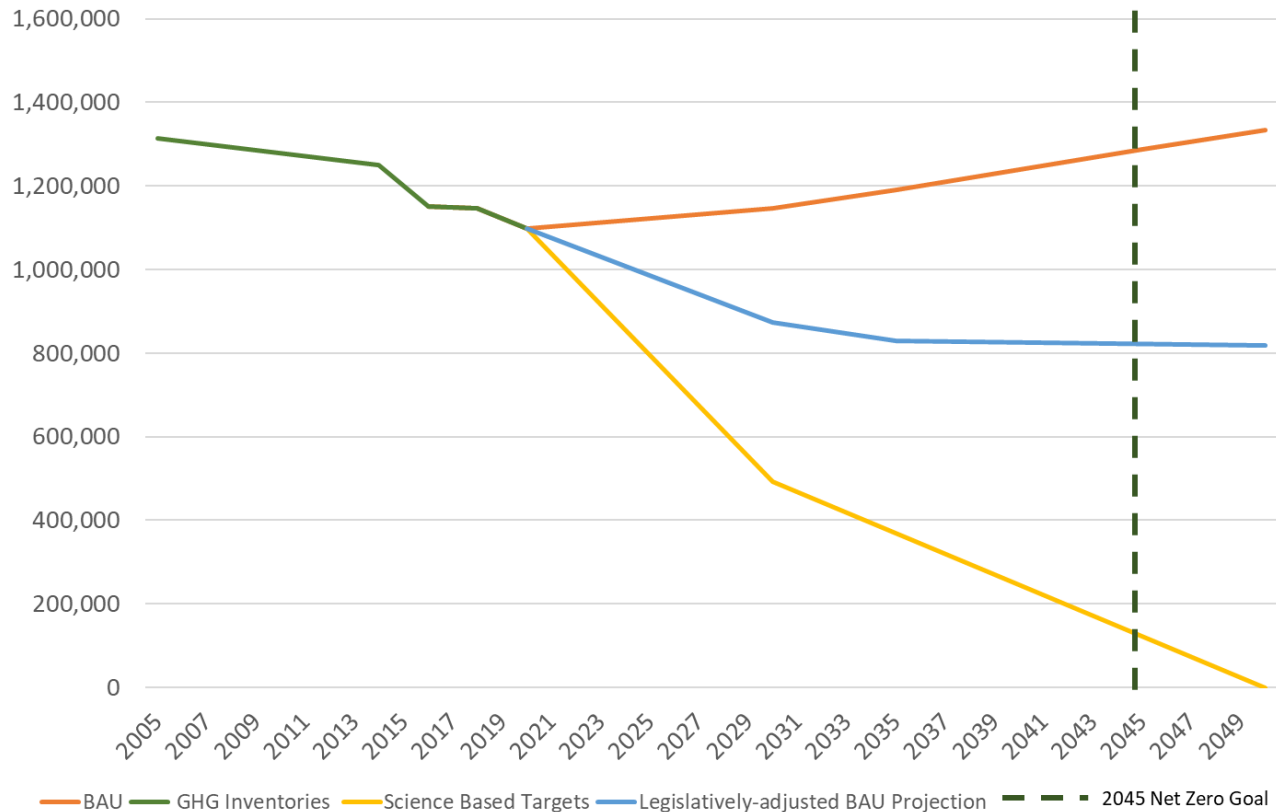
Climate Emergency

With carbon concentrations above 420 PPM, there is no “safe” amount of greenhouse gases to emit

Climate Emergency Declaration:
www.chulavistaca.gov/departments/clean/conservation/climate-action-plan



Community GHG Emissions and Reduction Goals (MT Co2e)



- Science-based reduction target of 57% below 2018 by 2030 provided by ICLEI



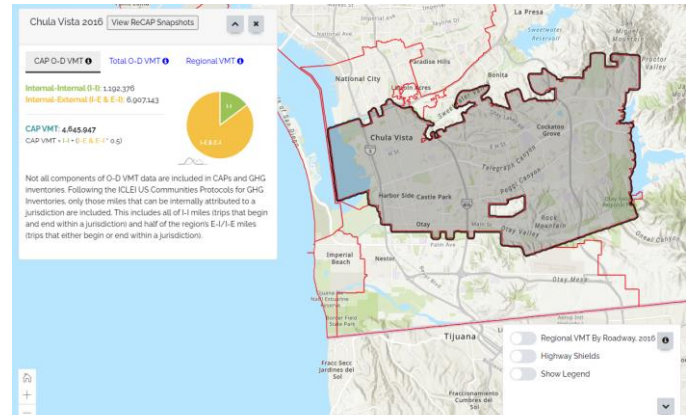
<https://unfccc.int/climate-action/race-to-zero-campaign>



Tracking

SANDAG Climate Action Data Portal

Chula Vista 2020



Snapshot not available [All 2020 data to CSV](#)

JURISDICTION QUICK FACTS

272,202 population in 2020
83,316 occupied housing units in 2020
52 square miles

TRANSPORTATION



COMMUNITY-WIDE

109 public electric vehicle chargers
2,211 clean vehicles registered
1 (% of clean vehicles registered out of total)



45,168 passengers on and off transit per weekday
2 Local businesses participating in SANDAG iCommute program events
160 total miles of bike lanes



MUNICIPAL

156 electric vehicle chargers

ENERGY EFFICIENCY



COMMUNITY-WIDE

810,363 MWh of electricity consumed

WATER + WASTEWATER



COMMUNITY-WIDE

61 gallons wastewater produced/person/day
84 gallons water used/person/day

RENEWABLE ENERGY



COMMUNITY-WIDE

31 % renewables in grid electricity supply
88 MW PV in use

MUNICIPAL

4,500 kW total PV capacity

SOLID WASTE



COMMUNITY-WIDE

4 lbs waste disposed in landfill/person/day
58 % waste diverted

CARBON SEQUESTRATION



MUNICIPAL

223 trees planted

<https://climatedata.sandag.org>



Next Steps

- San Diego Community Power (SDCP) enrolled all eligible customers at 55% GHG-free electricity, launched a 100% renewable rate and a Feed-In-Tariff program
- Promote the Sustainable Home Tool Kit (www.chulavistaca.gov/departments/clean/retrofit) and Electric Induction Cooktop (www.ehomecooktops.com) lending programs at the Chula Vista Library
- Update existing electric vehicle chargers at City facilities and install new chargers at a City owned lot near Third Avenue
- Implement Commercial and Multi-Family Benchmarking and Building Performance Ordinance
- Adoption of the Waste Reduction Strategic Plan, also referred to as the Zero Waste Plan, in March 2022
- Implement food waste collection program and expansion of compost use at municipal facilities
- Utilize the Climate Equity Index for program development

THANK YOU!

Any questions?

Municipal: Yasemin Corrales
Community: Cory Downs

