SILICON VALLEY
CLEAN ENERGY

Silicon Valley Clean Energy
Member Agency
Greenhouse Gas Emissions Report

Reporting Methodology

Each year, SVCE conducts a greenhouse gas (GHG) emissions inventory to track emissions related to energy and transportation in the SVCE service territory. The inventory model aligns with the U.S. Community Protocol for Accounting and Reporting Greenhouse Gas Emissions and was developed using industry standards for estimating and accounting for emissions from buildings, industry and vehicles.

To ensure that the most recent data is represented, historical years' GHG emissions are updated in this inventory to align with the latest models and assumptions. This also helps to ensure model consistency across year comparisons. Thus, emissions from one year in this inventory report may look different than emissions for the same year in previous inventory reports. Specific to transportation data, the California Air Resources Board (CARB) EMFAC model was updated in 2025 and the CARB OFFROAD model was updated in 2021. These latest models are used for all years within the 2024 GHG Inventory report. Additional information on the impacts of model changes can be found in the FAQ page.

Inventory results are calculated and provided for each of SVCE's member agencies for "Energy Emissions" and "Transportation Emissions".

Energy Emissions come from electricity consumption and gas consumption in buildings and industry. These are based on PG&E meter data across SVCE territory. Annual emission factors from SVCE, PG&E, and grid emissions are used to calculate electricity emissions, while the remaining emission and conversion factors used in the inventory calculations are pulled from industry-standard sources.

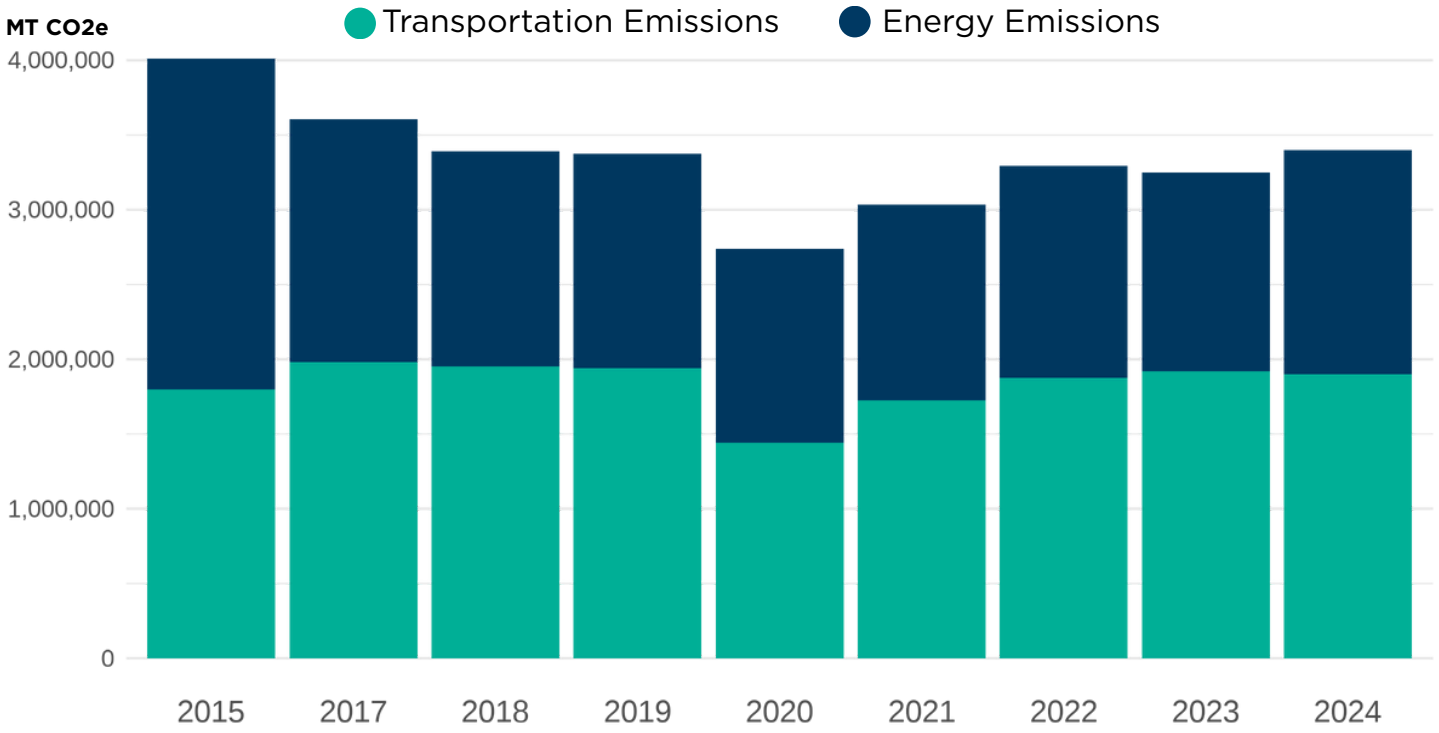
Transportation Emissions come from on-road vehicles and offroad vehicles.

- Emissions from the on-road transportation sector are calculated using DMV data on electric vehicle penetration, vehicle miles traveled data from the Metropolitan Transportation Commission, and vehicle fuel efficiency data from the latest CARB EMFAC database.
- Emissions from the offroad sector are calculated using the latest CARB's offroad models at the county-level, then apportioned to each of the 13 member agencies using population and workforce data from the U.S. Census Bureau and Plan Bay Area. Offroad vehicles* include equipment that operate off of public streets used in categories such as construction, manufacturing, recreation, and yard care.

Population data for each member agency comes from U.S. Census Bureau population estimates.

* Offroad "Airport Ground Support Equipment" were excluded from SVCE's GHG inventory because these emissions are primarily associated with San Jose International Airport which is not in SVCE service territory. "Oil Drilling" emissions were excluded since these activities do not occur in Santa Clara County.

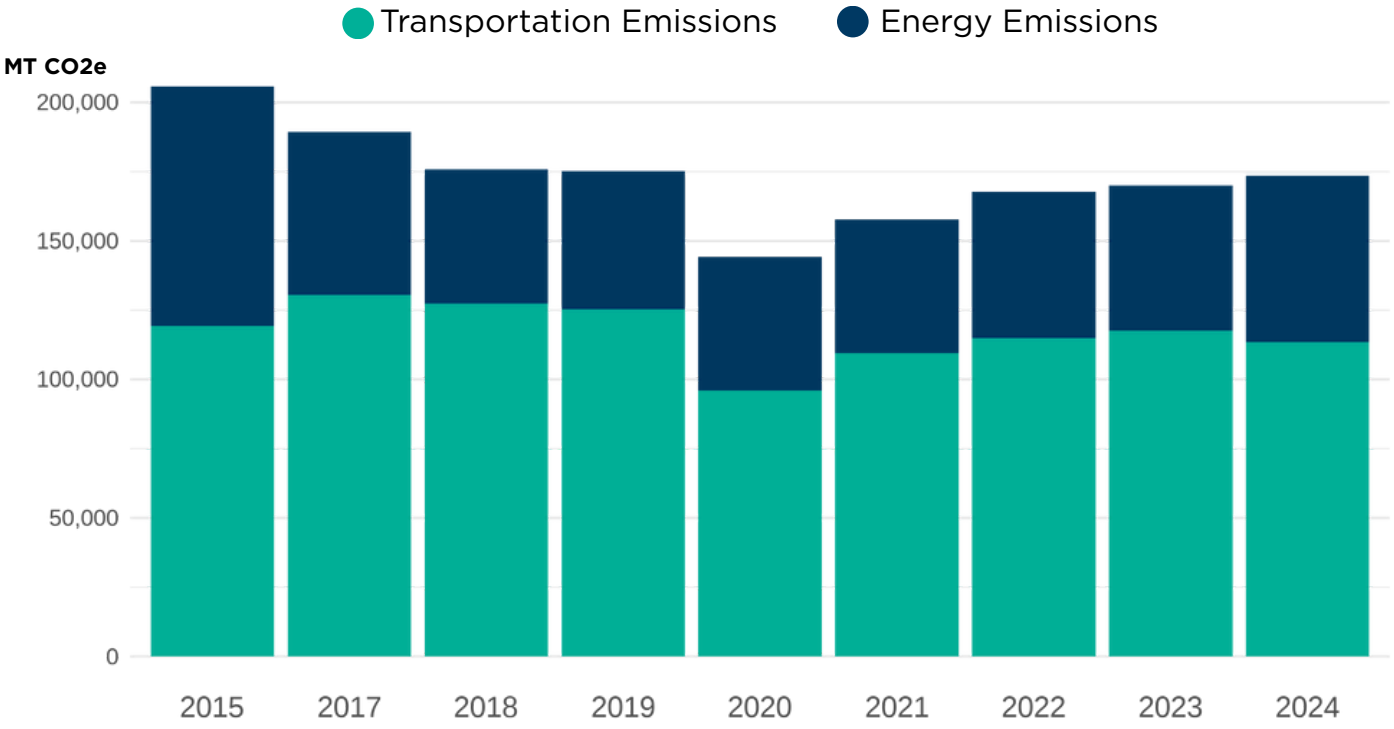
SVCE Emissions



Year	Population**	Energy Sector [MT CO2e]	Transportation Sector [MT CO2e]	Total Emissions [MT CO2e]
2024	728,167	1,497,831	1,899,852	3,397,682
2023	710,993	1,330,168	1,920,096	3,250,265
2022	706,772	1,417,320	1,874,676	3,291,995
2021	708,188	1,307,892	1,726,924	3,034,816
2020	710,328	1,298,409	1,440,106	2,738,515
2019	710,328	1,437,995	1,938,494	3,376,489
2018	711,297	1,440,047	1,951,304	3,391,351
2017	719,930	1,624,810	1,982,503	3,607,312
2015	719,930	2,210,009	1,799,506	4,009,514

*2016 inventory data is not available. SVCE's GHG inventory starts with the year 2017, when SVCE began service. There is an additional inventory for the year 2015 to serve as a baseline for SVCE's GHG reduction targets.

City of Campbell



Year	Population	Energy Sector [MT CO2e]	Transportation Sector [MT CO2e]	Total Emissions [MT CO2e]
2024	42,895	60,129	113,377	173,507
2023	41,700	52,372	117,607	169,979
2022	42,286	52,789	114,961	167,751
2021	42,754	48,198	109,565	157,763
2020	41,793	48,113	96,082	144,195
2019	41,793	49,706	125,407	175,113
2018	42,466	48,446	127,347	175,793
2017	40,939	58,882	130,499	189,381
2015	40,939	86,514	119,179	205,693

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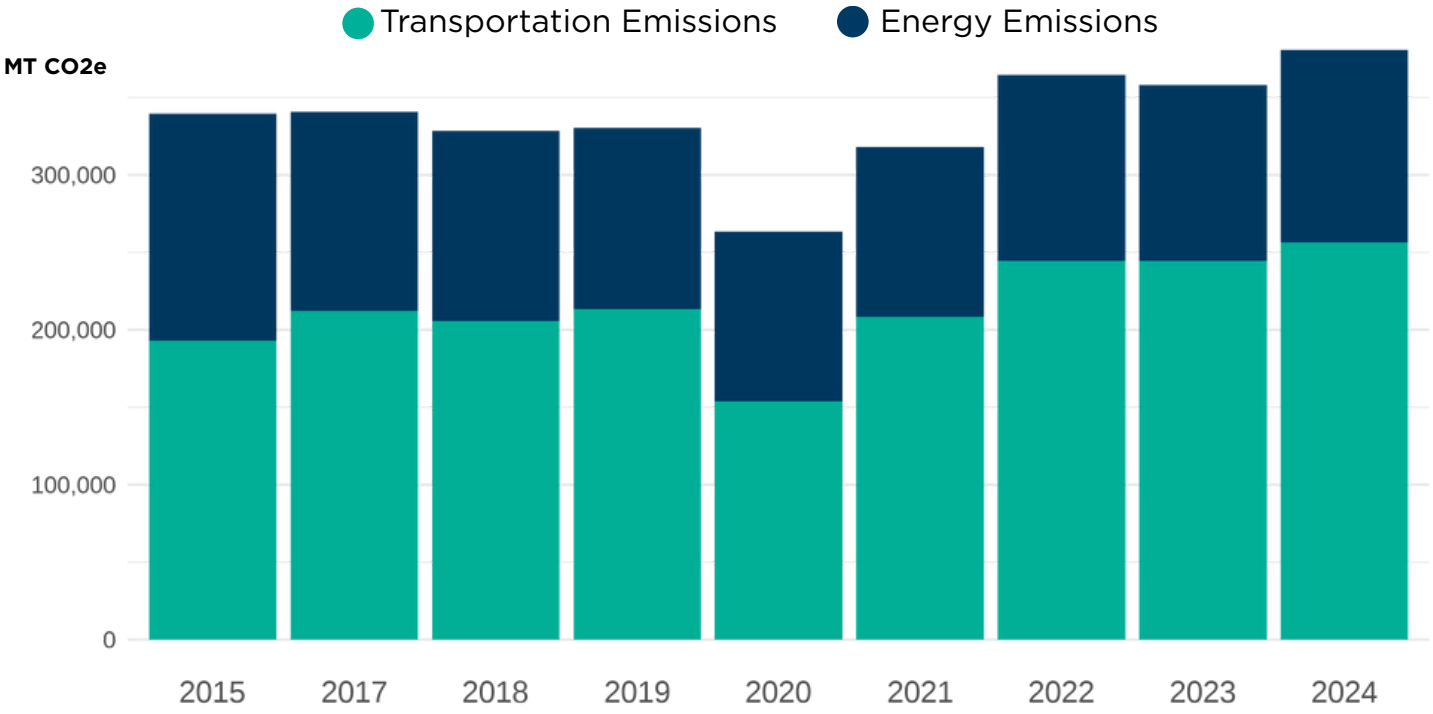
City of Cupertino



Year	Population	Energy Sector [MT CO2e]	Transportation Sector [MT CO2e]	Total Emissions [MT CO2e]
2024	58,710	124,129	256,450	380,579
2023	57,285	113,435	244,463	357,899
2022	57,856	119,946	244,635	364,581
2021	58,622	109,552	208,496	318,048
2020	59,276	109,446	153,879	263,325
2019	59,276	117,052	213,204	330,256
2018	60,170	122,676	205,818	328,494
2017	60,643	128,173	212,416	340,589
2015	60,643	146,660	192,921	339,581

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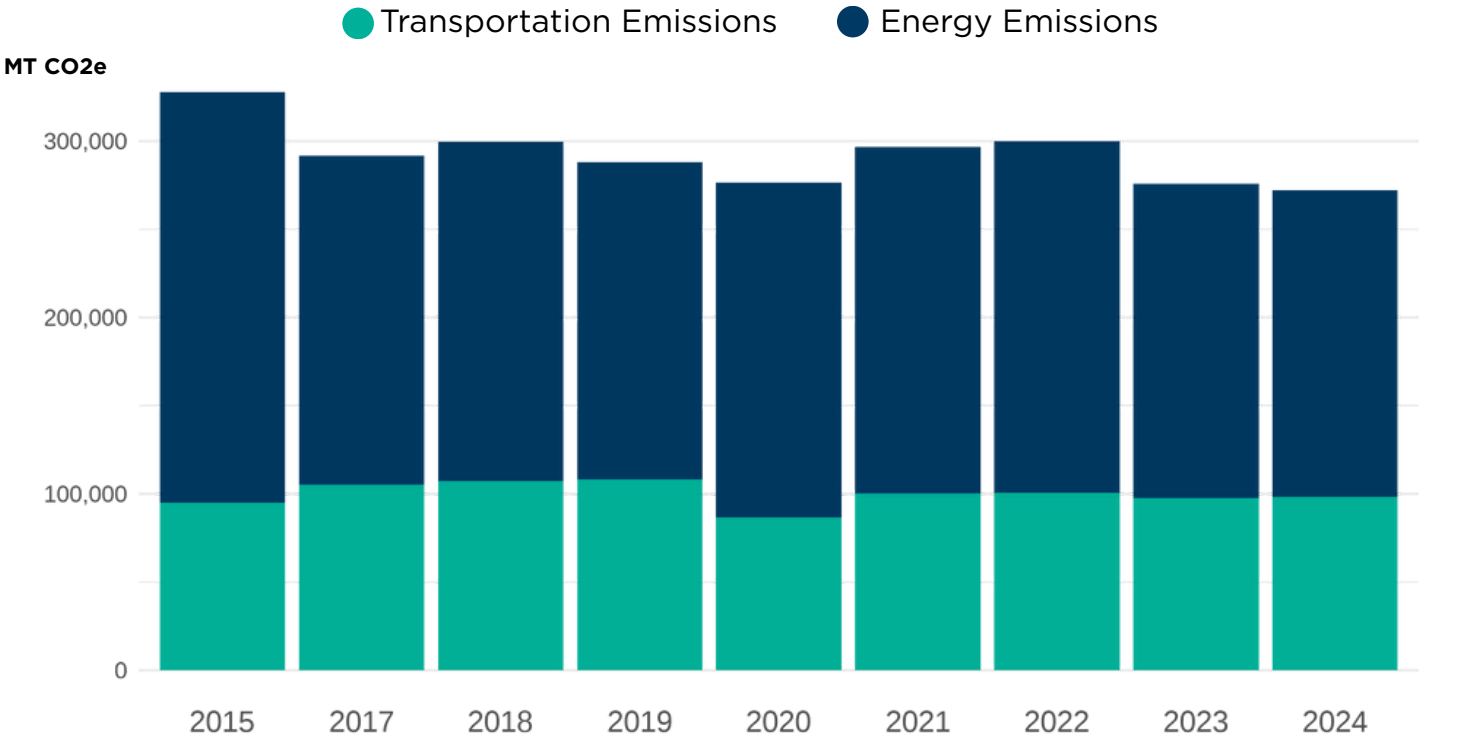
City of Gilroy



Year	Population	Energy Sector [MT CO2e]	Transportation Sector [MT CO2e]	Total Emissions [MT CO2e]
2024	60,390	173,815	98,388	272,203
2023	58,250	178,346	97,495	275,841
2022	58,005	199,572	100,547	300,119
2021	58,101	196,541	100,125	296,666
2020	59,032	189,594	86,750	276,344
2019	59,032	179,914	108,100	288,013
2018	58,756	192,454	107,373	299,826
2017	55,069	186,390	105,200	291,590
2015	55,069	232,683	95,064	327,747

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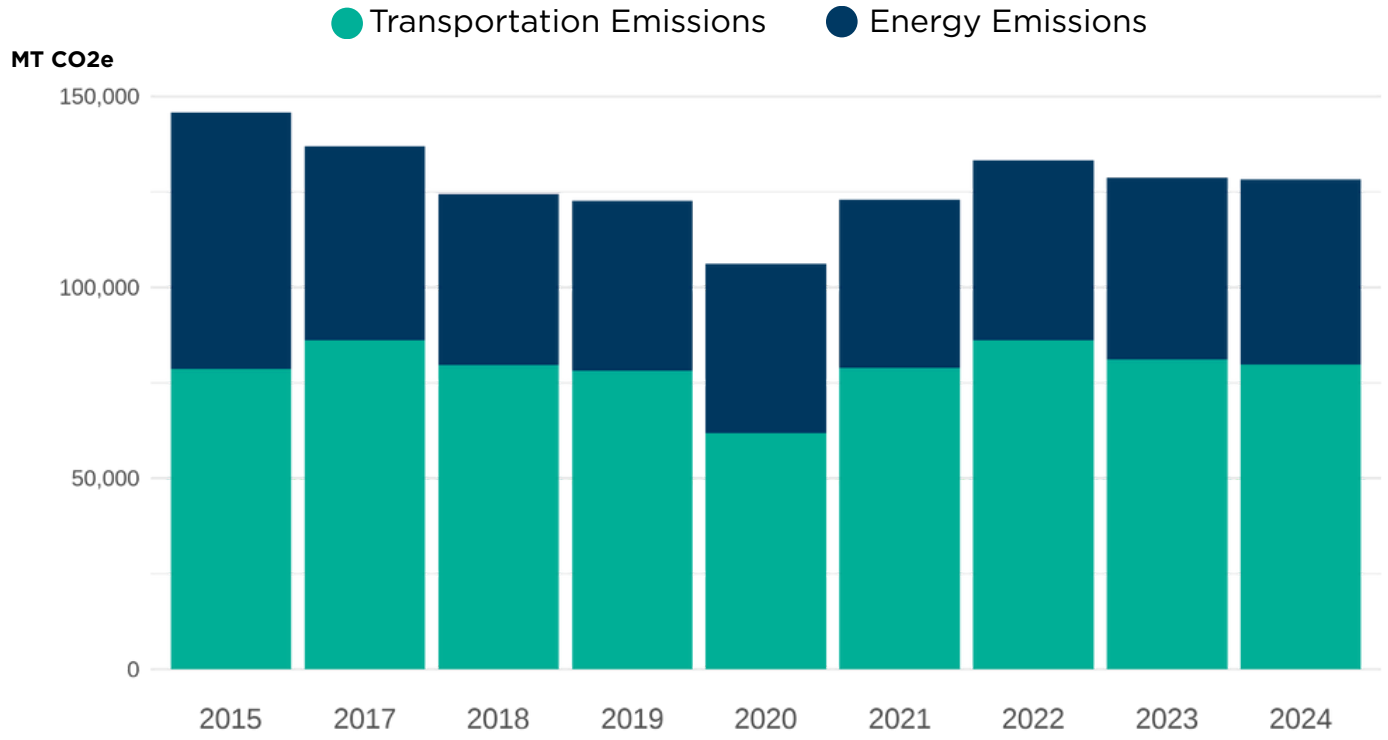
City of Los Altos



Year	Population	Energy Sector [MT CO2e]	Transportation Sector [MT CO2e]	Total Emissions [MT CO2e]
2024	30,864	48,332	79,878	128,209
2023	29,990	47,543	81,119	128,663
2022	30,424	47,251	86,090	133,341
2021	30,700	43,996	78,985	122,982
2020	30,089	44,327	61,905	106,232
2019	30,089	44,554	78,152	122,707
2018	30,531	44,767	79,675	124,442
2017	30,561	50,798	86,146	136,944
2015	30,561	67,144	78,612	145,755

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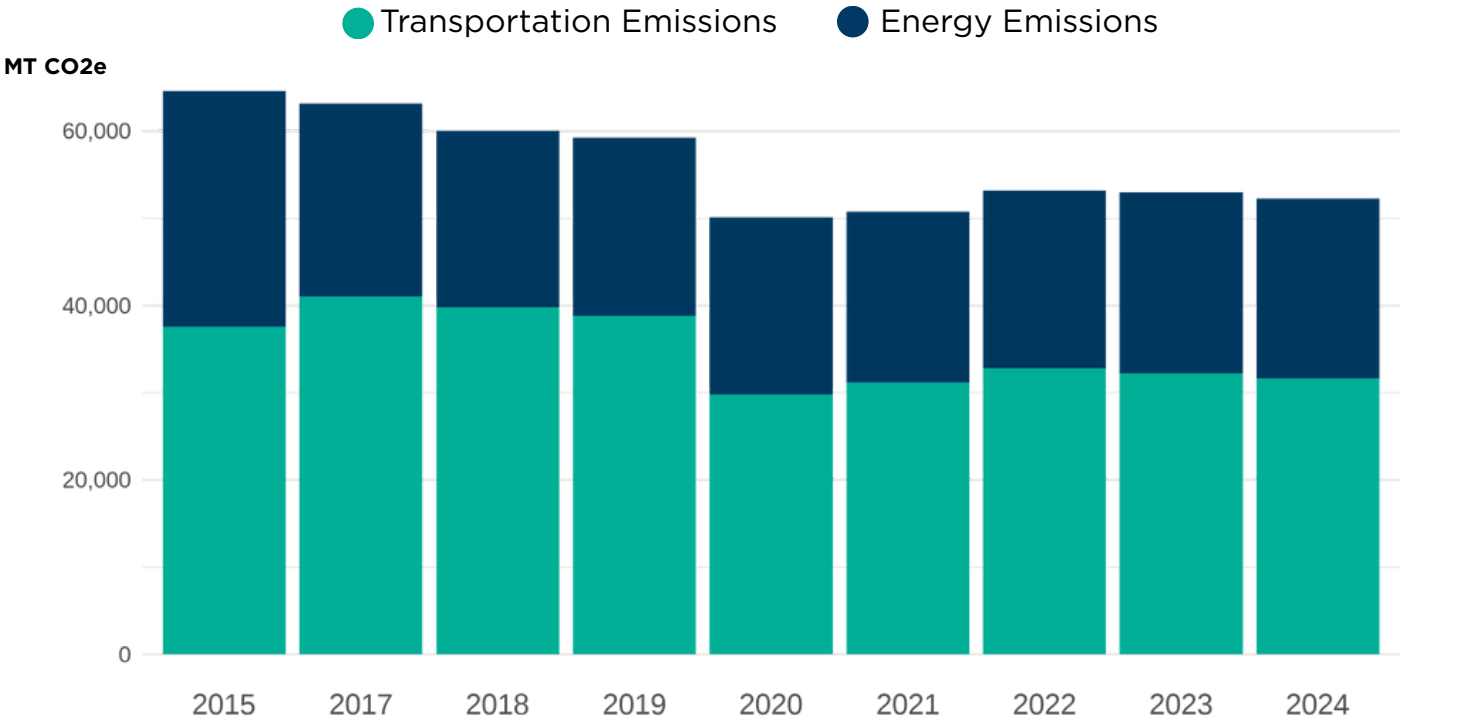
Town of Los Altos Hills



Year	Population	Energy Sector [MT CO2e]	Transportation Sector [MT CO2e]	Total Emissions [MT CO2e]
2024	8,435	20,662	31,633	52,295
2023	8,189	20,748	32,213	52,961
2022	8,168	20,422	32,796	53,218
2021	8,295	19,534	31,212	50,747
2020	8,423	20,260	29,848	50,108
2019	8,423	20,393	38,849	59,243
2018	8,559	20,223	39,817	60,040
2017	8,501	22,141	41,021	63,162
2015	8,501	27,006	37,586	64,592

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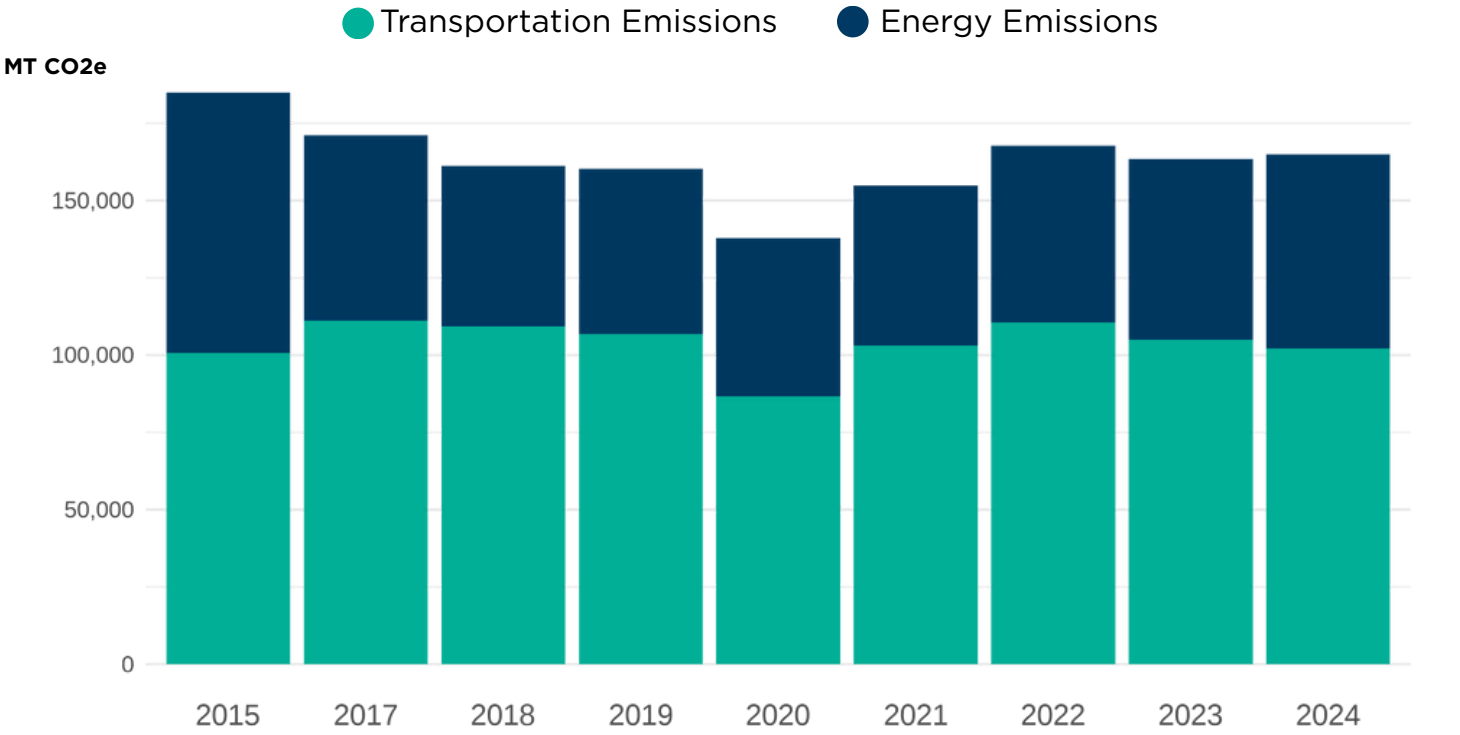
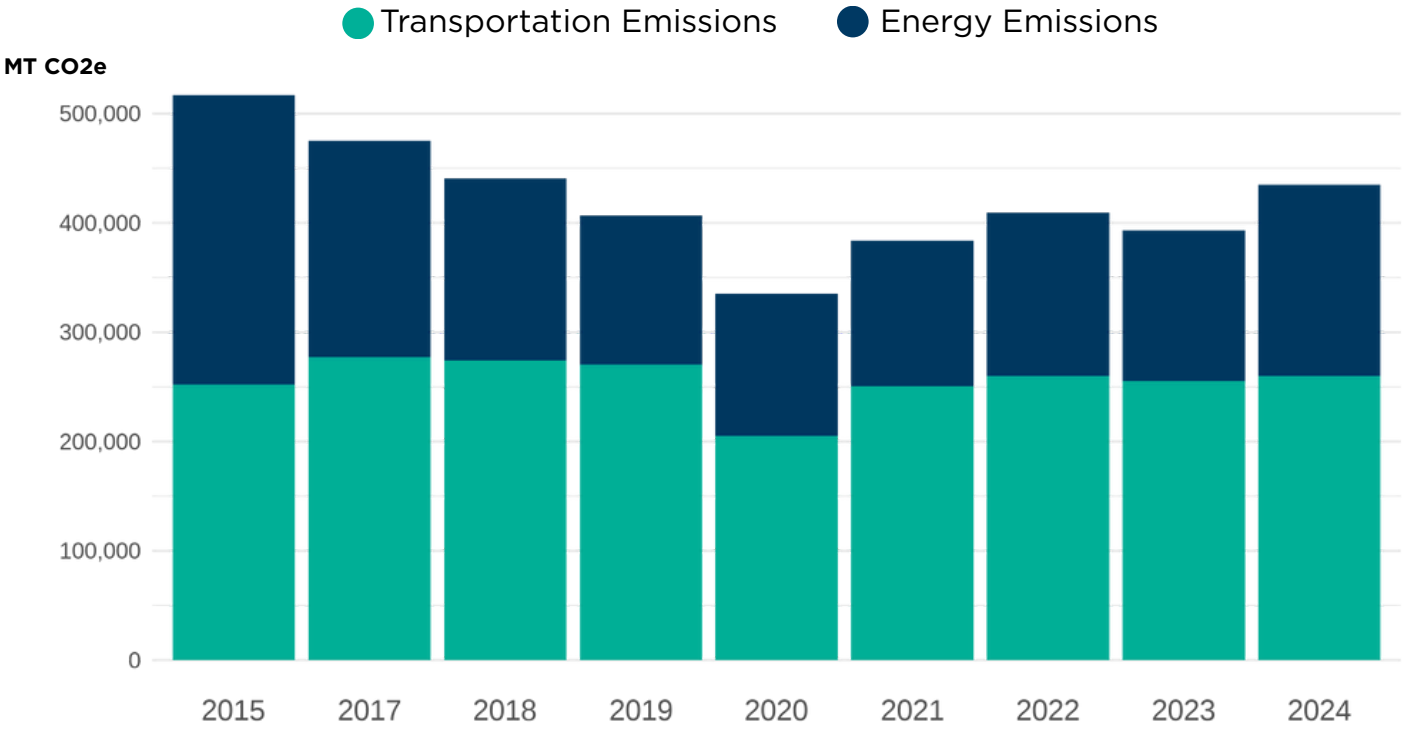
Town of Los Gatos



Year	Population	Energy Sector [MT CO2e]	Transportation Sector [MT CO2e]	Total Emissions [MT CO2e]
2024	32,952	62,799	102,085	164,884
2023	32,216	58,617	104,864	163,482
2022	32,402	57,156	110,570	167,726
2021	32,538	51,684	103,080	154,765
2020	30,222	51,093	86,665	137,758
2019	30,222	53,372	106,787	160,159
2018	30,680	51,911	109,267	161,179
2017	30,545	59,863	111,150	171,013
2015	30,545	84,106	100,741	184,847

*2016 inventory data is not available. SVCE's GHG inventory starts with the year 2017, when SVCE began service. There is an additional inventory for the year 2015 to serve as a baseline for SVCE's GHG reduction targets.

City of Milpitas



Year	Population	Energy Sector [MT CO2e]	Transportation Sector [MT CO2e]	Total Emissions [MT CO2e]
2024	79,746	175,001	260,176	435,178
2023	77,321	137,536	255,550	393,086
2022	77,738	149,576	260,058	409,634
2021	79,066	132,819	250,796	383,615
2020	84,196	129,921	205,210	335,131
2019	84,196	136,444	270,205	406,649
2018	80,430	166,549	273,954	440,503
2017	77,528	197,974	277,218	475,192
2015	77,528	264,439	252,371	516,810

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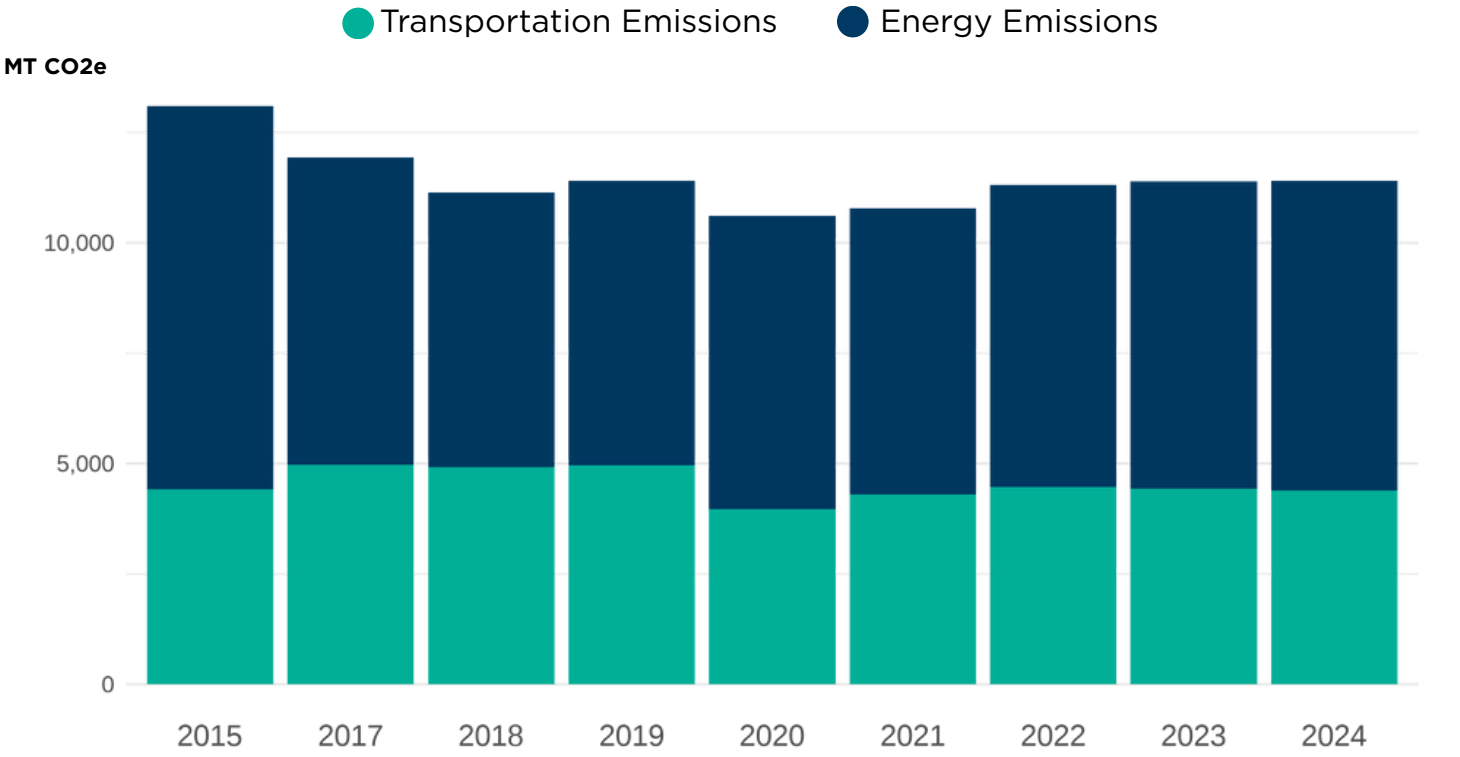
City of Monte Sereno



Year	Population	Energy Sector [MT CO2e]	Transportation Sector [MT CO2e]	Total Emissions [MT CO2e]
2024	3,479	7,018	4,387	11,406
2023	3,479	6,959	4,428	11,387
2022	3,343	6,838	4,468	11,306
2021	3,396	6,491	4,296	10,786
2020	3,488	6,644	3,971	10,616
2019	3,488	6,453	4,957	11,411
2018	3,487	6,217	4,918	11,135
2017	3,514	6,967	4,968	11,935
2015	3,514	8,683	4,413	13,096

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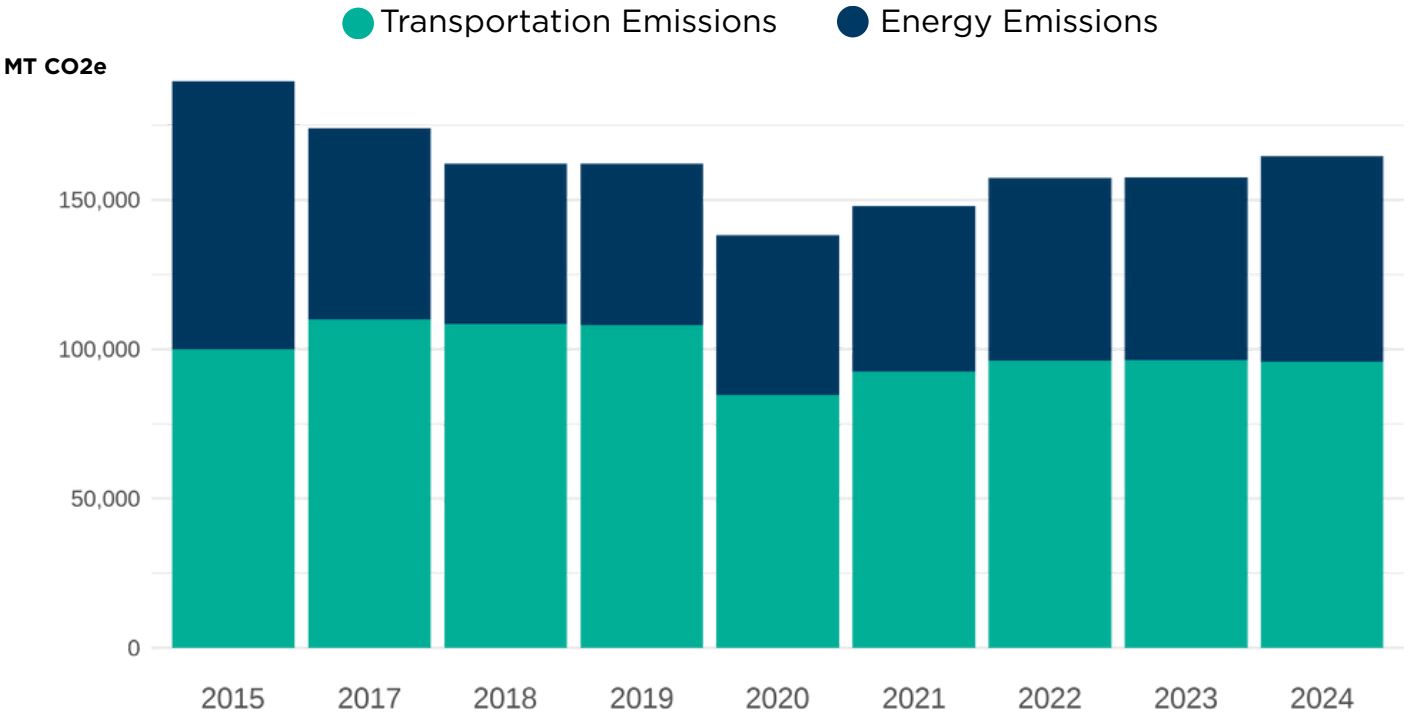
City of Morgan Hill



Year	Population	Energy Sector [MT CO2e]	Transportation Sector [MT CO2e]	Total Emissions [MT CO2e]
2024	45,952	68,777	95,849	164,627
2023	44,478	61,315	96,332	157,646
2022	44,973	61,152	96,196	157,348
2021	45,342	55,451	92,553	148,004
2020	45,952	53,680	84,606	138,286
2019	45,952	54,065	108,019	162,083
2018	45,135	53,639	108,563	162,202
2017	44,155	64,137	109,991	174,127
2015	44,155	89,636	100,075	189,711

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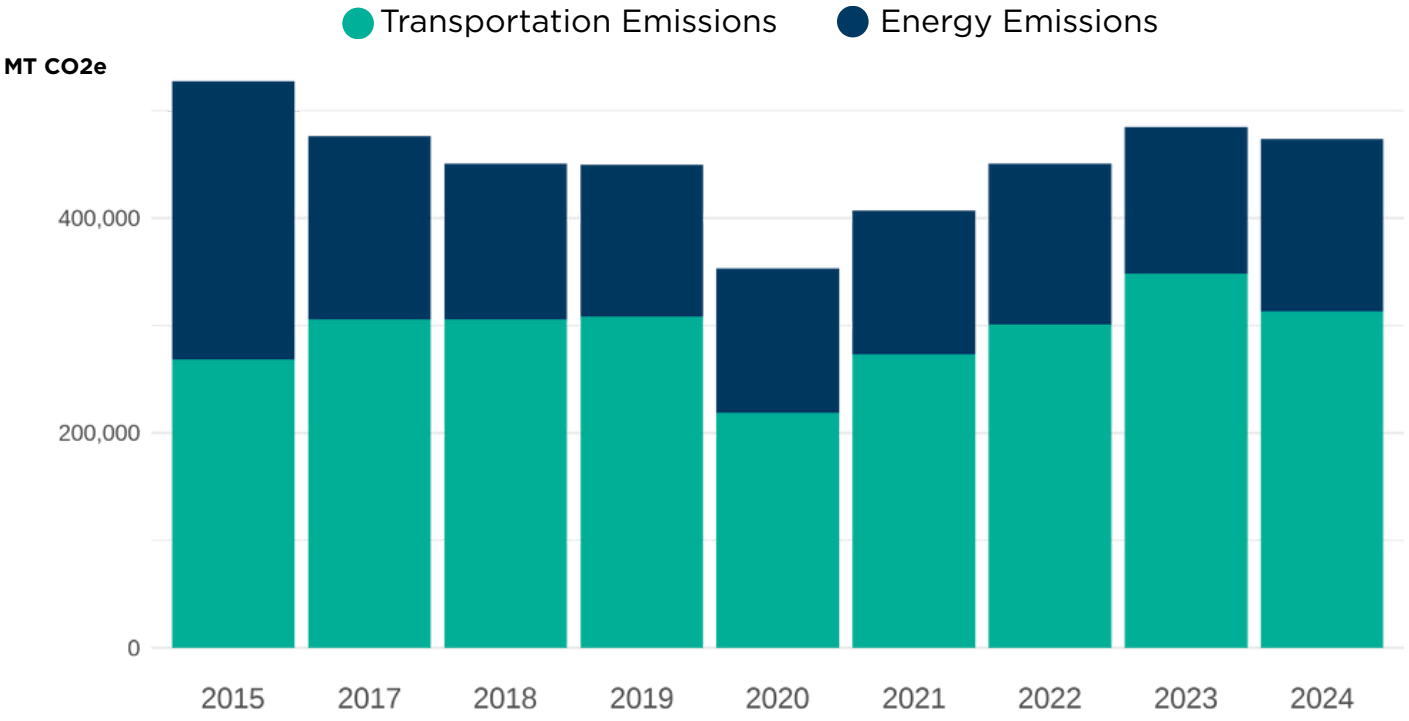
City of Mountain View



Year	Population	Energy Sector [MT CO2e]	Transportation Sector [MT CO2e]	Total Emissions [MT CO2e]
2024	87,316	160,220	313,352	473,572
2023	81,785	136,643	348,191	484,834
2022	81,059	149,915	300,720	450,635
2021	81,516	133,607	273,325	406,932
2020	82,739	134,042	218,950	352,993
2019	82,739	140,950	308,554	449,504
2018	83,377	145,201	305,606	450,808
2017	80,447	170,654	305,792	476,446
2015	80,447	258,778	268,433	527,211

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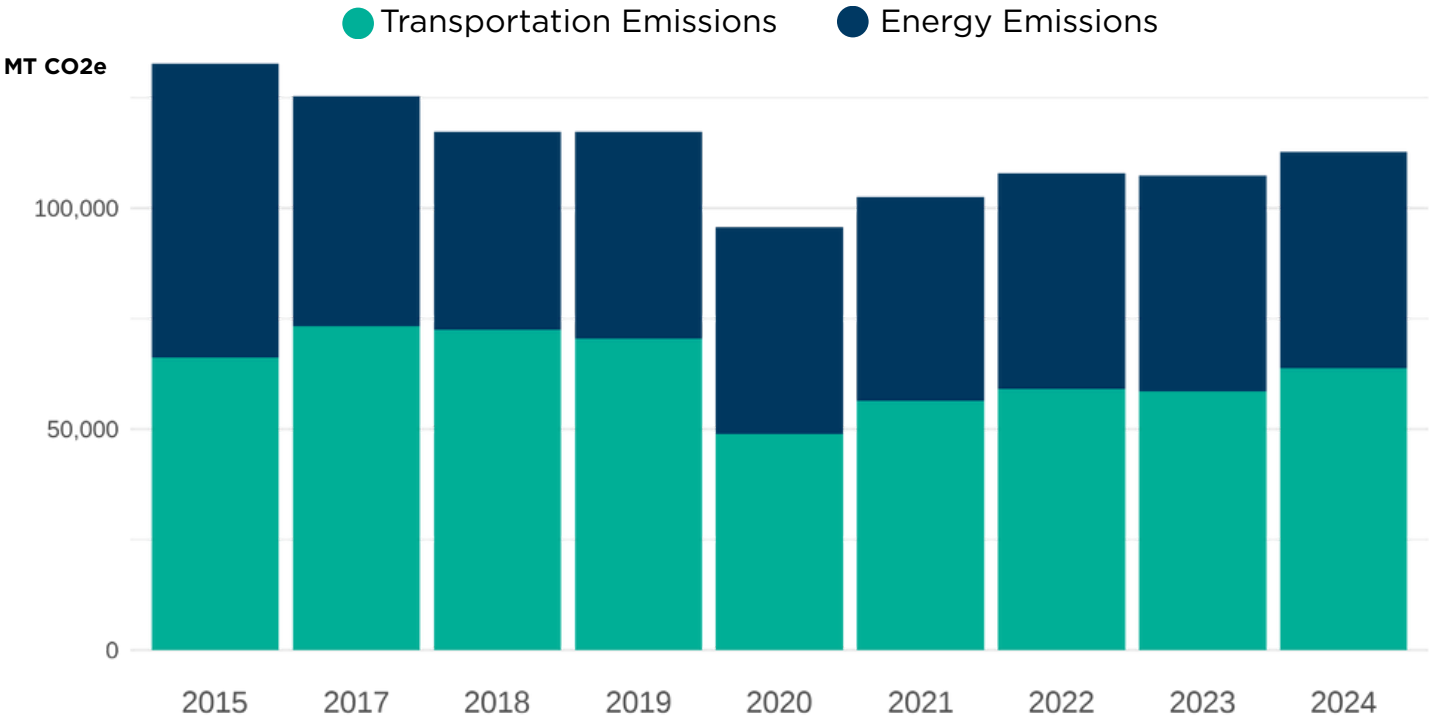
City of Saratoga



Year	Population	Energy Sector [MT CO2e]	Transportation Sector [MT CO2e]	Total Emissions [MT CO2e]
2024	30,486	48,980	63,777	112,757
2023	29,607	48,830	58,581	107,412
2022	29,903	48,751	59,139	107,890
2021	30,163	46,074	56,414	102,488
2020	30,153	46,764	48,943	95,707
2019	30,153	46,753	70,479	117,232
2018	30,599	44,777	72,476	117,254
2017	30,767	51,928	73,370	125,298
2015	30,767	66,402	66,252	132,654

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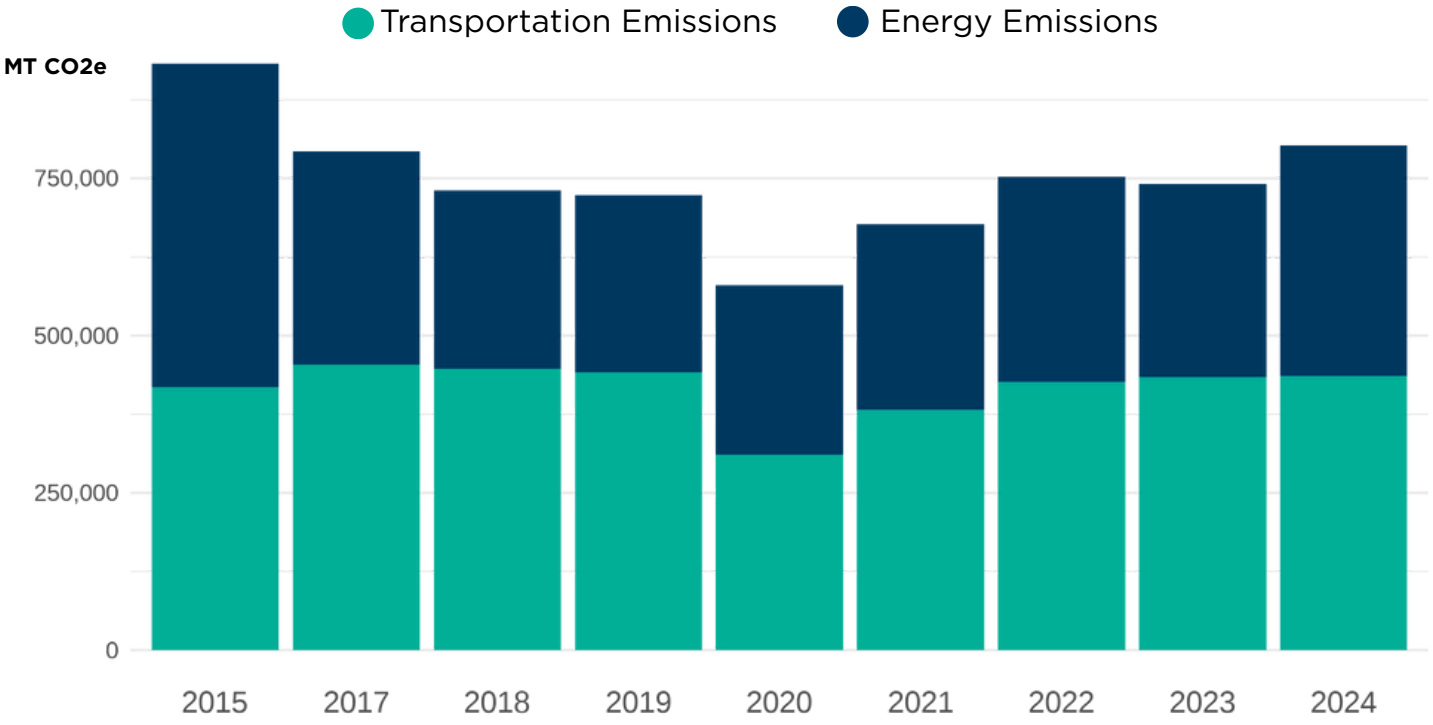
City of Sunnyvale



Year	Population	Energy Sector [MT CO2e]	Transportation Sector [MT CO2e]	Total Emissions [MT CO2e]
2024	156,792	366,633	435,674	802,307
2023	151,967	307,083	434,535	741,617
2022	153,091	325,648	426,584	752,232
2021	152,258	294,730	382,252	676,982
2020	152,703	268,759	311,104	579,862
2019	152,703	281,967	441,629	723,596
2018	153,185	283,484	447,655	731,138
2017	152,771	338,589	454,276	792,865
2015	152,771	514,085	418,113	932,198

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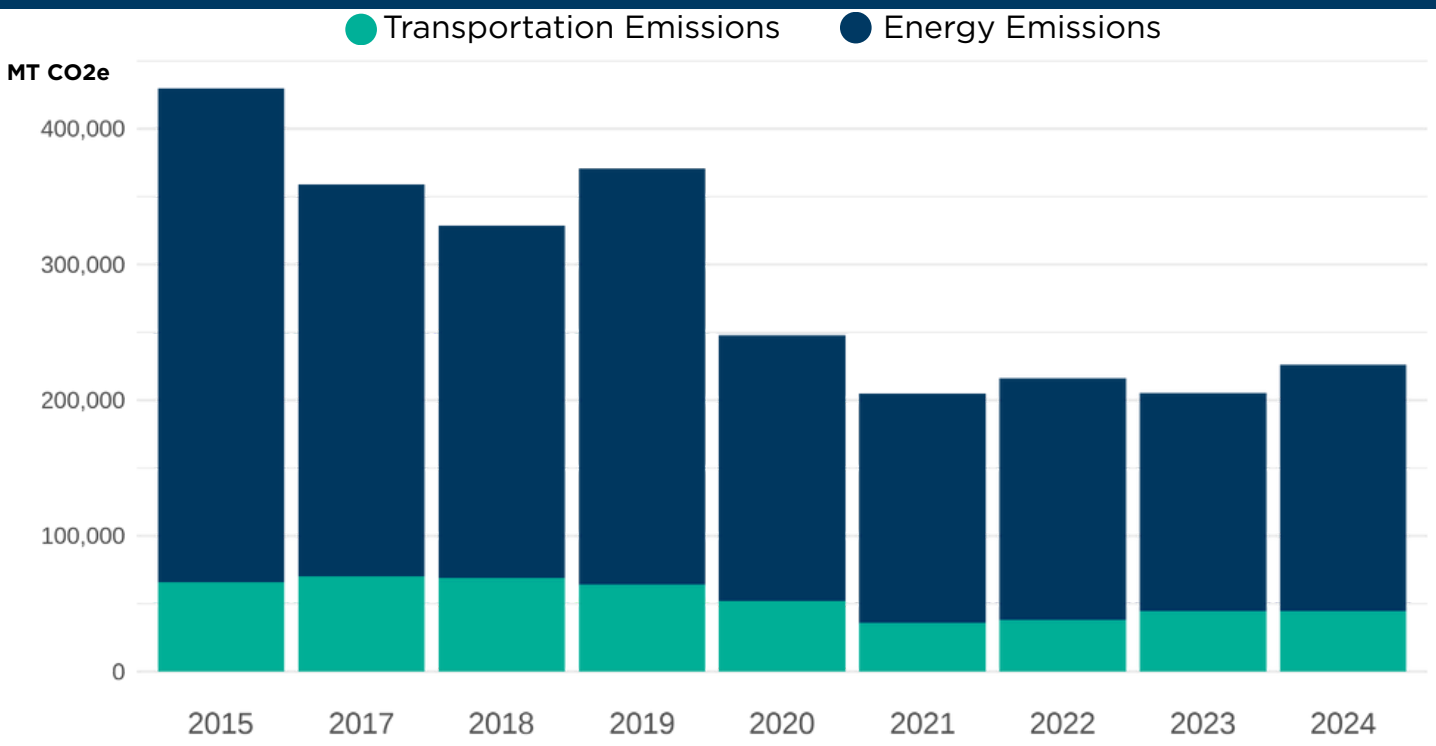
Unincorporated Santa Clara County



Year	Population**	Energy Sector [MT CO2e]	Transportation Sector [MT CO2e]	Total Emissions [MT CO2e]
2024	90,150	181,335	44,825	226,159
2023	94,726	160,741	44,717	205,458
2022	87,524	178,302	37,912	216,215
2021	85,437	169,212	35,827	205,039
2020	82,262	195,765	52,193	247,958
2019	82,262	306,372	64,150	370,522
2018	83,922	259,702	68,834	328,535
2017	104,490	288,314	70,456	358,769
2015	104,490	363,873	65,746	429,619

*2016 inventory data is not available. SVCE's GHG inventory starts with the year 2017, when SVCE began service. There is an additional inventory for the year 2015 to serve as a baseline for SVCE's GHG reduction targets.

** Starting in 2018 there was a change in Unincorporated population calculation methods. Applying this same method to 2015 and 2017, the population would be around 85,000 for those years.

Greenhouse Gas Emissions Report Frequently Asked Questions

What does transportation emissions data include?

Transportation emissions includes:

- On-road transportation covering commercial and non-commercial travel either partially or fully within SVCE's service territory. This includes travel within SVCE territory by residents who live outside of SVCE territory.
- Offroad transportation include vehicles and engines used for agriculture, commercial operations, construction and mining, industrial processes, forestry and yard care, and recreation, and that don't operate on public streets.

What emissions factors are used for emissions associated with electricity?

SVCE and PG&E electricity emission factors are pulled from their respective Power Content Labels. The default direct access emissions factor was calculated using state-level data from CARB, then adjusted for SVCE territory based on public information about local direct access customers.

What potential emissions are excluded from this analysis?

Emissions associated with the production and life cycle of products purchased by residents and businesses in SVCE's service territory not included. In addition, emissions from air travel, methane emissions from waste and water treatment, fugitive gas leakage emissions, and refrigerant emissions are excluded from this inventory.

How is this emissions inventory used?

The inventory supports data-driven decision making at SVCE by providing an understanding of how emissions are changing in relation to the 2015 baseline and since SVCE's operations began. The inventory also supports local agencies in providing data to complete their own emissions reporting.

Why are previous years' emissions data different in this report compared to past inventory reports?

This GHG inventory uses the latest models and data available at the time that the inventory is conducted. For on-road transportation SVCE incorporates the CARB EMFAC model within the transportation calculations and for off-road transportation SVCE uses the CARB OFFROAD model. Both of these models are periodically updated based on the latest available data. To ensure model consistency for year-to-year comparisons, historical years were also updated to include the CARB EMFAC 2025 and CARB OFFROAD 2021 models.

Specific to this inventory report, transportation emissions across all years are higher compared to previous inventory reports. This is due to updates within the CARB EMFAC 2025 model which indicate a higher vehicle age in operation using the latest registration data as well as increases in emissions rates for higher speed driving (70+ mph). Thus, both of these changes led to a decrease in vehicle fuel efficiency compared to prior CARB EMFAC models used in previous inventories.

Previous archived inventory reports are also available publicly.