

Key 2018 Activity Data in each Emissions Category*
 *unless indicated otherwise, all data are 2018 data

Emissions Category	2018 Data	Chula Vista	Description
On-Road Transportation	Vehicle miles traveled (annual miles)	1,612,143,717	Annual miles are converted from average weekday miles by multiple 347 weekday per year. Average weekday miles are derived from SANDAG Series 14 Forecast, ABM2 transportation model, and allocated to the jurisdiction using the Origin-Destination method. The VMT used in the 2018 GHG emissions inventory is the same as that in the 2016 GHG emissions inventory
	Average vehicle emission rate (g CO ₂ e/mile)	406	Based on EMFAC2017 model, average vehicle emission rate based on the VMT distribution of vehicle classes in the San Diego (SANDAG) region.
	On-road transportation GHG emissions (MT CO ₂ e)	655,000	Emission values are rounded.
Electricity	Electricity consumed including losses (MWh)	865,272	Electricity use includes the metered sales and transmission and distribution losses; does not include electricity from behind-the-meter supply (e.g., behind-the-meter PV) or use at Port of San Diego facilities within the City.
	Electricity emission factor - grid only (lbs CO ₂ e/MWh)	566	Each city may have a different grid-only electricity emission factor depending on the percentage of Direct Access customers supplied by other electric service providers through SDG&E's grid. The emission factor does not take into account the behind-the meter PV supply. PV supply is assumed to have no emissions.
	Electricity GHG emissions (MT CO ₂ e)	223,000	Emission values are rounded.
Natural Gas	Natural gas consumed (million therms)	34.5	Natural gas use does not include the natural gas use at Port of San Diego facilities within the City.
	Natural gas GHG emissions (MT CO ₂ e)	188,000	Emission values are rounded.
Solid waste	Solid waste disposed in landfills (metric tons)	209,700	Waste generated from Chula Vista and disposed at landfills.
	Solid waste GHG emissions (MT CO ₂ e)	52,000	Emissions are based on a 75% landfill gas capture rate, 10% oxidation rate and the mixed waste emission factor developed based on City of Chula Vista's most recent waste characterization study (2015). Emission values are rounded.
Water	Potable water consumed (acre-feet)	24,336	Potable water in the city is delivered by Sweetwater Authority and Otay Water District (Otay WD). The water supply sources in 2016 were imported treated and raw water from San Diego County Water Authority, local brackish groundwater and local groundwater from National City Wells.
	Recycled water consumed (acre-feet)	3,779	Recycled water was supplied by Otay WD.
	Water GHG emissions (MT CO ₂ e)	12,000	For potable water, emissions are based on the upstream water supply and conveyance energy use, and water treatment and distribution energy use of Sweetwater Authority and Otay WD. For recycled water, emissions are based on the tertiary water treatment and distribution energy use of Otay WD's recycled water system. Emission values are rounded.
Wastewater	Wastewater produced (million gallons)	5,667	Wastewater flow from Chula Vista to City of San Diego Metro Sewerage System.
	Wastewater emission factor (MT CO ₂ e/million gallons)	0.46	Wastewater process and anaerobic digestion emission factor at Point Loma Wastewater Treatment Plant.
	Wastewater GHG emissions (MT CO ₂ e)	3,000	Emission values are rounded.

Chula Vista - Select Snapshot Activity Data

Along with the inventory, these activity data represent common GHG reduction activities included in local CAPs across the SANDAG region and may not align precisely with GHG reduction measures and/or the metrics identified in the city's CAP. Activity data below represent best available data (2016-2019). If multiple year data are available, they are shown here. See FAQs for more details.

Emissions Category	Snapshot Activity Data	Chula Vista	Source	Download/Received Date	Notes on Data or Processing Data		
	Population (as of January 2018)	268,060	Based on SANDAG Demographic and Socioeconomic Estimates for the jurisdiction (August 19, 2020 version).	Web Download September 28, 2020	Population and housing unit estimates are updated annually. SANDAG August 2020 version estimates may differ from previous or later versions' estimates.		
	Occupied Housing Units (as of January 2018)	79,751			Population is the sum of household and group quarters population. Occupied housing units are the units occupied by household population, not including group quarters.		
Transportation	Community-wide	Number of public electric vehicle chargers through 2018	99 (Level 2) 10 (DC Fast)	Alternative Fuels Data Center Alternative Fueling Station Locator https://afdc.energy.gov/stations/#/analyze	Web Download September 28, 2020	Data filtering Criteria: Fuel Type: ELEC Status: Available Access: Public Number of chargers are the number of nozzles or plugs, one site may have more than one charger. The Alternative Fuels Data Center (AFDC), managed by National Renewable Energy Laboratory (NREL), is an open data source platform, which allows users to add, remove, and update charging station information and location, with NREL verification. The database is updated on an ongoing basis. As a result, the number of chargers may increase or decrease year over year. However, AFDC data are still the best available data at city level.	
		Number of Power Your Drive electric vehicle chargers through 2018	214	Data provided by SDG&E to SANDAG and EPIC (Charger installations completed prior to the end of 2018) The locations of the chargers are shown in https://www.sdge.com/pyd-map	Received April 2, 2019	Electric vehicle chargers installed through SDG&E Power Your Drive at workplaces (including municipal fleets) and multi-family buildings (apartment and/or condo buildings). These chargers are not available for public use. Number of chargers are the number of nozzles or plugs, one site may have more than one charger.	
		Number of clean vehicles (alternative fuel vehicles) through October 2018	18,976				Zero emission vehicles include battery electric, plug-in hybrid and fuel cell vehicles.
		Number of clean vehicles registered (alternative fuel vehicles) as percentage of total vehicles registered, through October 2018	9%	Department of Motor Vehicles Statistics Fuel Type by City as of 10/1/2018		Web Download November 15, 2019	Alternative fuel vehicles are referred to as clean vehicles in this document. All but gasoline and diesel vehicles are alternative fuel vehicles, including zero emission vehicles.
		Number of clean vehicles per 10,000 capita, through October 2018	708				
		Number of zero emission vehicles (battery electric, plug-in hybrid electric, fuel cell electric) through October 2018	1,393		https://www.dmv.ca.gov/portals/uploads/2020/04/MotorVehicleFuelTypes_City_102018.pdf		DMV registered vehicle data, including total number of registered vehicle and number of registered vehicle by fuel type, have not been consistent year over year. However, DMV data are still the best available data at city level.
	Number of zero emission vehicles as percentage of total vehicles registered through October 2018	1%					
	Municipal Operations	Number of electric vehicle chargers stations at municipal sites (2018 and 2019)	123 (2018) 123 (2019)	Data provided by City	Received May 8, 2020	The chargers are accounted for under "number of Power Your Drive electric vehicle chargers through 2018" indicator above. The chargers are available for municipal fleet and employee use at 3 locations.	
		Number of clean vehicles in municipal fleet (2018 and 2019)	41 (2018) 68 (2019)	Data provided by City	Received May 8, 2020	Clean vehicles include 13 plug-in hybrid electric vehicle, 28 battery electric vehicle, and 6 CNG vehicles.	
	Community-wide	Total Miles of Bicycle Lanes (miles in 2018)	10 (Class 1 Bicycle Path) 78 (Class 2 Bicycle Lane) 59 (Class 3 Bicycle Route) 146 (Total)			Received July 03, 2019	Miles of bicycle facilities represent the data based on what were "on the ground". The mileages are based on the length of street centerline segment, which can include bicycle facilities on either side of the street, or both sides. The classification of bicycle facilities is based on the California Highway Design Manual and used by SANDAG.
		Miles of Bicycle Lanes as Percentage of Road Miles (% in 2018)	2% (Class 1 Bicycle Path) 16% (Class 2 Bicycle Lane) 11% (Class 3 Bicycle Route) 30% (Total)				Miles of bicycle lanes as percentage of road miles are based on the miles of bicycle facilities and miles of roads, excluding freeways, freeway to freeway ramps, freeway on/off ramps, private streets, alleys, military streets within bases, paper streets, and unpaved roads.
		Passengers on and off transit per weekday - Bus (Fiscal Year 2018 and 2019)	34,665 (2018) 36,759 (2019)	Data provided by SANDAG to EPIC (Data were provided by MTS and NCTD to SANDAG)	Received September 2, 2020	Passenger served by transit stops are represented by boardings and alightings in Chula Vista, and are identified with transit stop IDs. The data are for weekday only, not including weekend data.	
Passengers on and off transit per weekday - Trolley (Fiscal Year 2018 and 2019)		21,427 (2018) 21,221 (2019)					
Number of local businesses participating in SANDAG iCommute program events (2016, 2017 and 2018)		6 (2016) 5 (2017) 4 (2018)	Data provided by SANDAG to EPIC SANDAG Employer Program, Active Employers as of December 7, 2018	Received December 10, 2018	Includes all types of iCommute program activities.		
Number of SANDAG vanpools to or from City (2016, 2017 and 2018)		68 (2016) 72 (2017) 65 (2018)	Data provided by SANDAG to EPIC SANDAG Vanpool Program, Active Vanpools, as of November 16, 2018	Received November 21, 2018	Vanpool origin cities and business destination cities are used to identify the origin and destinations of the vanpools. Number of vanpools indicates the vanpools that were in operation and received a monthly subsidy from SANDAG in that year.		
Energy Consumption and Savings	Community-wide	Community-wide electricity consumed - grid-supply only (MWh in 2016-2018)	827,849 (2016) 818,302 (2017) 814,878 (2018)			Electricity use represents metered sales data only, does not include transmission and distribution losses or behind-the-meter supply (e.g., behind-the-meter PV). kWh and therms are converted to MMBtu using 99.576 btu/therm and 3,412 btu/kWh conversion factors. Energy use per home is calculated based on Community-wide residential energy use and the number of occupied housing units.	
		Community-wide electricity consumed- grid-supply only (MMBtu in 2016-2018)	2,824,740 (2016) 2,792,161 (2017) 2,780,480 (2018)				
		Average residential electricity consumed - grid-supply only (kWh per home in 2016-2018)	4,892 (2016) 4,759 (2017) 4,719 (2018)				
		Average residential electricity consumed - grid-supply only (MMBtu per home in 2016-2018)	17 (2016) 16 (2017) 16 (2018)				
		Community-wide natural gas consumed (million therms in 2016-2018)	35 (2016) 35 (2017) 35 (2018)				
		Community-wide natural gas consumed (MMBtu in 2016-2018)	3,512,230 (2016) 3,535,362 (2017) 3,453,568 (2018)	Data provided by SDG&E to EPIC	Received July 2, 2020		
		Average residential natural gas consumed (therms per home in 2016-2018)	246 (2016) 249 (2017) 239 (2018)				
		Average residential natural gas consumed (MMBtu per home in 2016-2018)	25 (2016) 25 (2017) 24 (2018)				
		Community-wide energy (electricity + natural gas) consumed (MMBtu in 2016-2018)	6,355,970 (2016) 6,327,523 (2017) 6,234,048 (2018)				
		Average residential energy (electricity + natural gas) consumed (MMBtu per home in 2016-2018)	41 (2016) 41 (2017) 40 (2018)				

Energy	Community-wide	Community-wide electricity savings through SDG&E programs (MWh, 2016-2019)	6,879 (2016) 18,458 (2017) 20,351 (2018)	Data provided by Sempra to EPIC	Received June 25, 2019	Energy savings from SDG&E energy efficiency program participants only. This includes all customer sectors in the Chula Vista e.g., residential, commercial, and industrial (if any). The savings are estimates comparing the energy use with and without the energy efficiency projects. A negative natural gas value means additional natural gas is used. Net energy savings means the net of electricity and natural gas savings. KWh and therms are converted to MMBtu using 99.976 btu/therm and 3,412 btu/kWh conversion factors.			
		Community-wide electricity savings through SDG&E programs (MMBtu, 2016-2019)	23,471 (2016) 62,983 (2017) 69,439 (2018)						
		Community-wide natural gas savings through SDG&E programs (therms, 2016-2019)	-153,708 (2017) -204,991 (2018)						
		Community-wide natural gas savings through SDG&E programs (MMBtu, 2016-2019)	-5,698 (2016) -15,367 (2017) -20,494 (2018)						
		Community-wide net energy savings through SDG&E energy efficiency programs (MMBtu, 2016-2019)	17,773 (2016) 47,616 (2017) 48,945 (2018)						
		Municipal facilities electricity consumed - grid-supply only (MWh, 2016 and 2018)	12,147 (2016) 15,979 (2018)				Data provided by City	Received November 18, 2020	Electricity use represents metered sales data only, does not include transmission and distribution losses or behind-the-meter supply (e.g., behind-the-meter PV or co-generation). KWh and therms are converted to MMBtu using 99.976 btu/therm and 3,412 btu/kWh conversion factors. Energy savings from SDG&E energy efficiency program participants only. City also undertook independent lighting retrofit projects.
		Municipal facilities electricity consumed - grid-supply only (MMBtu, 2016 and 2018)	41,448 (2016) 54,523 (2018)						
		Municipal facilities natural gas consumed (therms, 2016 and 2018)	166,798 (2016) 157,501 (2018)						
		Municipal facilities natural gas consumed (MMBtu, 2016 and 2018)	16,676 (2016) 15,746 (2018)						
		Municipal facilities energy (electricity + natural gas) use (MMBtu, 2016 and 2018)	58,124 (2016) 70,269 (2018)						
Municipal facilities energy saved through SDG&E programs (therms, 2016-2019)	One lighting retrofit project in 2018, estimated savings 92,334 KWh								
Renewable Energy	Community-wide	Percent of renewables in SDG&E electricity supply (2016-2018)	43% (2016) 44% (2017) 43% (2018)	California Energy Commission Power Content Label https://www.energy.ca.gov/programs-and-topics/programs/power-source-disclosure/power-content-label	Web Download	For SDG&E bundled customers only. Electricity providers for SDG&E's Direct Access customers have different renewable contents.			
		Community-wide PV capacity - all systems (MW through 2016-2019)	44 (2016) 53 (2017) 64 (2018) 77 (2019)	California Distributed Generation Statistics Interconnection NEM data Current as of 2020-02-29 https://www.californiadgstats.ca.gov/downloads/	Web Download April 16, 2020	Systems in Chula Vista that are interconnected as of December 31 of a given year (application approved date) are included for that year. MW is in direct current (dc). Database is updated quarterly. Statistics in this version may be different from previous or later versions.			
	Municipal Operations	PV systems at municipal facilities as of 2018	3,800	Data provided by City	Received May 8, 2020	New PV installation commenced in 2018 at 11-12 facilities with a total of 2,434 kW capacity, and is expected to be completed in 2019.			
Wastewater	Community-wide	Wastewater produced per capita (gallons per capita per day in 2016-2018)	59 (2016) Not Available (2017) 58 (2018)	Data provided by City	Received May 8, 2020	Data provided by City of San Diego through public records request.			
Water	Community-wide	Potable water consumed per capita (gallons per capita per day in 2016-2018)	69 (2016) 70 (2017) 81 (2018)	Data provided by City	Received May 8, 2020	Both water districts service areas are larger than Chula Vista, only the water delivered to Chula Vista was included. Recycled water is only delivered by Otay Water District and is not part of the potable water use per capita data.			
		Community-wide recycled water consumed (acre-feet in 2016-2018)	4,034 (2016) 3,856 (2017) 3,779 (2018)						
Solid Waste	Community-wide	Waste disposed in landfill per capita (pounds per person per day in 2016-2018)	3.7 (2016) 4.0 (2017) 4.7 (2018)	CalRecycle Jurisdiction Disposal and Alternative Daily Cover (ADC) Tons by facility https://www2.calrecycle.ca.gov/LGCentral/DisposalReporting/Destination/DisposalByFacility	Web Download Sep 28, 2020	Waste tonnage confirmed by City.			
	Community-wide	Community-wide waste diversion rate (% in 2016-2018)	65% (2016) 62% (2017) 56% (2018)	CalRecycle Jurisdiction Diversion/Disposal Rate Summary https://www2.calrecycle.ca.gov/LGCentral/DiversionProgram/JurisdictionDiversionPost2006	Web Download Sep 28, 2020	Diversion rate is calculated based on City's per resident disposal rate target (pounds per capita per day - PPD), which is equivalent to a 50% diversion rate, and the PPD in a year. Chula Vista's 50% diversion rate is equivalent to 5.3 PPD. Each city has a different disposal rate target.			
	Municipal Operations	Average annual number of new trees planted by City (2018)	348	Data provided by City	Received May 8, 2020	N/A			