2022

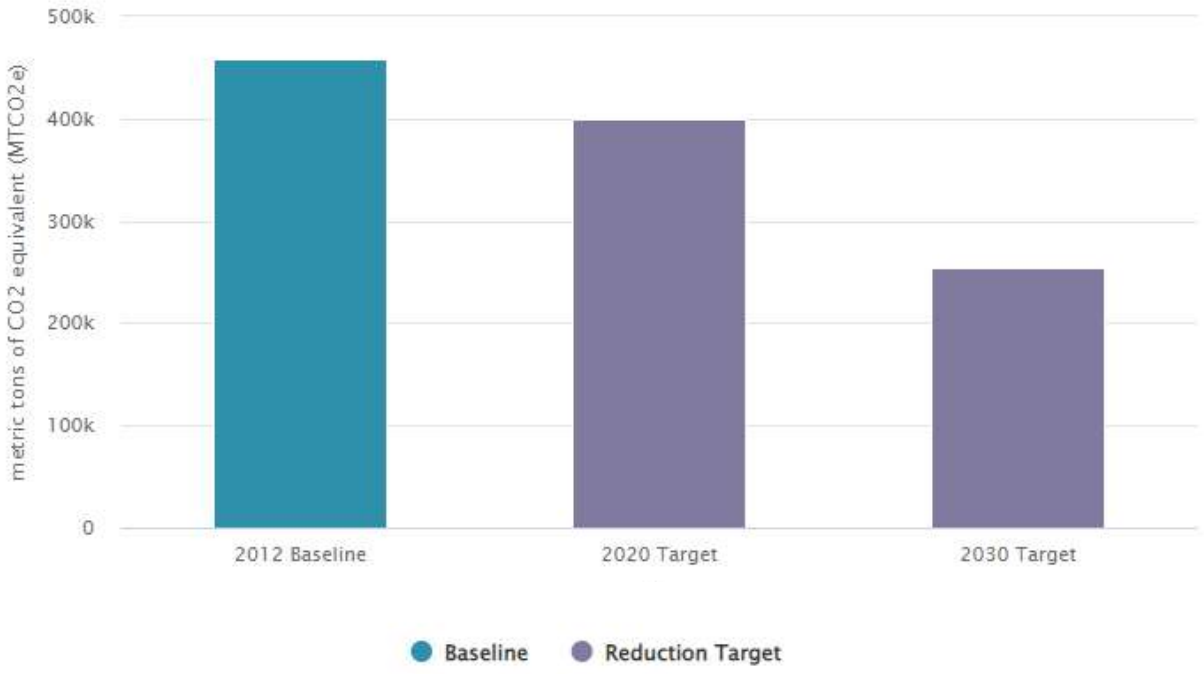
CLIMATE ACTION PLAN ANNUAL REPORT

CITY OF Encinitas

Table of Contents

Executive Summary

The City of Encinitas is actively engaged in addressing climate change and reducing greenhouse gas (GHG) emissions. Since the adoption of a comprehensive Climate Action Plan (CAP) in 2018, the City has made significant strides in implementing the CAP's goals, strategies, and measures. The City acknowledges the importance of continually adapting to our changing climate, which requires placing an emphasis on projects that will serve Encinitans now and in the future. Beyond the CAP, the City will continue to support practices that benefit environmental, social, and economic well-being with the goal of fostering equitable access to natural resources, in addition to enhancing public health and well-being. Through the implementation of the CAP, the City aims to achieve citywide GHG emissions reductions of 13% below 2012 levels by 2020 and 44% below 2012 levels by 2030. This equates to reducing emissions by 59,664 metric tons of carbon dioxide equivalent (MTCO2e) by 2020 and 201,941 MTCO2e by 2030.



The City's CAP was updated in 2020 and now includes a total of 20 measures. To track and share implementation progress with the public, the CAP calls for annual monitoring and reporting, which includes summarizing progress toward overall GHG reduction targets, and evaluating progress made on implementing each of the 20 measures. This is the City's fourth annual report; it includes data tracked through 2022 and features notable City accomplishments. In 2022, 14 CAP measures were completed, 5 were in progress, and 1 was awaiting resources.

Executive Summary

It is notable that 19 out of the City's 20 measures have been initiated or completed. Most of the City's CAP measures are long-term projects or programs, which require funding, planning, and coordinated implementation to be achieved. All measures outlined in the CAP are targeted to be completed by 2030 and initiating the vast majority of the measures in the first five years shows that the City is well on its way to reaching its goals. Notable measures completed include activities like the design and construction of several new pedestrian and biking facilities throughout the City, the adoption of local green building and energy efficiency requirements incorporated into the City's building code, and the establishment of curbside composting for Encinitas residents. . Most notably, in 2019 the City jointly formed San Diego Community Power, a Community Choice Energy agency which began serving Encinitas residents and businesses with 100 percent renewable electricity in 2021. Section 3: Implementation Progress by CAP Strategy describes the progress on all measures in more detail.

The most recent GHG emissions inventory for the City, completed with support from the San Diego Association of Governments (SANDAG), is also included in the 2022 Annual Report. Using the best and most currently available data and modeling technology, this inventory estimated citywide GHG emissions in the City of Encinitas to be 391,800 MTCO2e in 2020. This is 14.6 percent lower than emissions inventoried in 2012, the baseline year. SANDAG's 2020 GHG Inventory does not include transportation data due to unreliable vehicle miles traveled modeling data for that year; therefore, City used 2018 transportation emission data as a proxy for 2020. More information regarding the City's latest GHG emissions inventory can be found in Section 1: Greenhouse Gas Inventory.

The 2022 Annual Report also evaluates whether the City has meet the 2020 GHG emissions reduction target and provides an early look at the City's trend toward the 2030 emissions target. By 2020, the City aimed to be 13 percent below 2012 GHG emission levels. While some emissions sectors showed greater reductions than others in the 2020 GHG Inventory, it demonstrated that the City achieved its 2020 target, exceeding it by 1.6 percent!

The progress made on individual CAP measures is presented in Section 2: Implementation Progress Summary and Section 3: Implementation Progress by CAP Strategy. With multiple years of monitoring data now available, the data and figures presented show long-term trends in GHG emissions reduction and demonstrate City's beneficial impact on climate change.

The report concludes with coverage of the City's impact on social equity and local green jobs (Section 4) and an update on the City's actions to achieve future climate resilience and coastal adaptation (Section 5).

For an interactive version of the CAP Annual Report, be sure to check out the City's Climate Dashboard which can be found here: https://www.encinitasenvironment.org/dashboard.

Section 1

Greenhouse Gas Inventory

The City tracks the amount of greenhouse gases (GHGs) being emitted in Encinitas because it indicates how much our community is contributing to climate change. A GHG inventory is a monitoring tool used to report on the implementation of the City's Climate Action Plan (CAP). It helps to understand the source and amount of GHG emissions being generated, as well as track the progress towards CAP emission reduction targets.

Section 1

GHG Inventory

GHG Inventory

Greenhouse Gases

The primary greenhouse gases (GHGs) emitted in the City of Encinitas include carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), sulfur hexafluoride (SF6), hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs). Each GHG has varying levels of potency in the atmosphere, therefore, to simplify the discussion and comparison of emissions, the Climate Action Plan (CAP) uses a measurement referred to as carbon dioxide equivalent (CO2e), which is measured in metric tons (MT).

GHG Inventory

GHG Emissions Inventory

Completing GHG inventories is essential to achieving the main objective of the City's CAP, which is to meet targeted reductions in emissions by 2020 and 2030. GHG inventories are conducted periodically to provide a snapshot of emissions each year and help develop emissions trends over time. The City's baseline inventory completed for the 2018 CAP estimated GHG emissions from sources in Encinitas to be 459,000 metric tons of carbon dioxide equivalent (MTCO2e) in 2012.

The most recent GHG emissions inventory was completed in 2023, by San Diego Association of Governments (SANDAG) as part of their Regional Climate Action Planning Framework & Monitoring Program. This most recent inventory reflects GHG emissions from the year 2020.

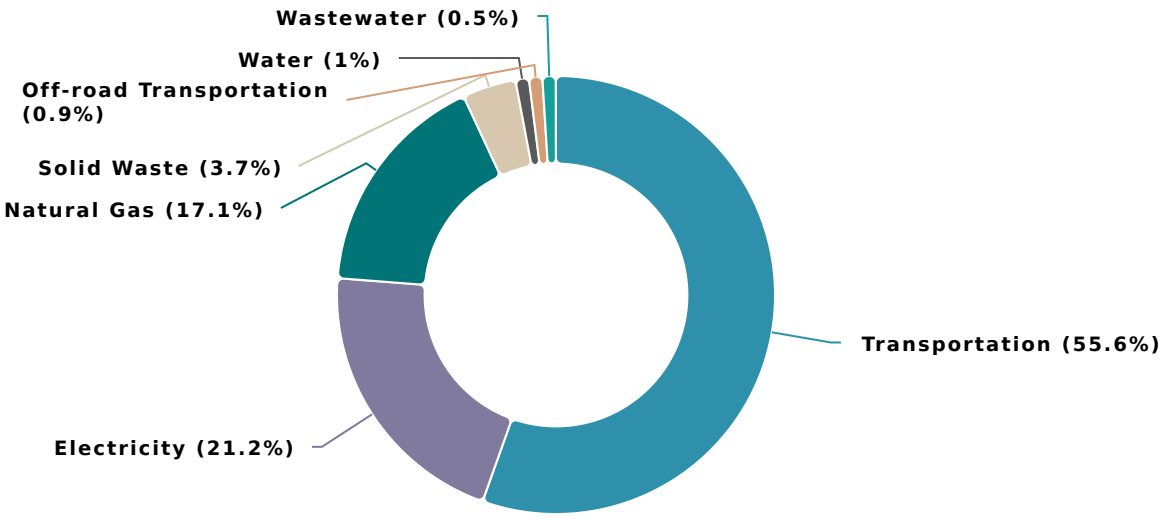
Using the best and most currently available data and modeling methods, citywide GHG emissions in the City of Encinitas were determined to be ***391,800 MTCO2e in 2020***. Since transportation emissions data was not included in SANDAG's 2020 GHG Inventory due to unreliable vehicle miles traveled (VMT) modeling for that year, the City used 2018 transportation emission data as a proxy for 2020. Annual VMT data generated by SANDAG are forecasted estimates from their regional activity-based model (ABM). The most recent activity-based model, ABM2+, was last calibrated with observed data from 2016. Any forecasted VMT data for 2020 would not take into account the impacts of the Covid-19 pandemic and therefore would not be an accurate estimate for that year. Historically, on-road transportation makes up the largest share of the City's GHG emissions.

See next page for graph

GHG Inventory

GHG Emissions Inventory (continued)

Note: The 2020 GHG inventory is based on best available emissions data. All listed sectors include data for 2020 except transportation, which includes data from 2018, as explained above.



2020 GHG Inventory	
Emission Sector	**Metric tons of CO2 equivalent (MTCO2e)**
On-road Transportation	218,000
Electricity	83,100
Natural Gas	67,100
Soild Waste	14,500
Water	3,600
Off-road Transportation	3,500
Wastewater	2,000
Total	**391,800**

GHG Inventory

GHG Emissions Calculations and Trends

GHG emissions are calculated by multiplying activity data (e.g., kilowatt-hours of electricity, tons of solid waste) by an emission factor (e.g., pounds of CO2 per unit of electricity). Running these calculations involves, among other things, a sophisticated regional transportation model using citywide and regional data. Measuring emissions from transportation is one of the most challenging sectors to evaluate.

As climate science continues to advance and evolve, emissions calculation methodologies will vary from year to year, making direct comparisons difficult. Annual GHG inventories are best compared by evaluating the general trends in data over time.

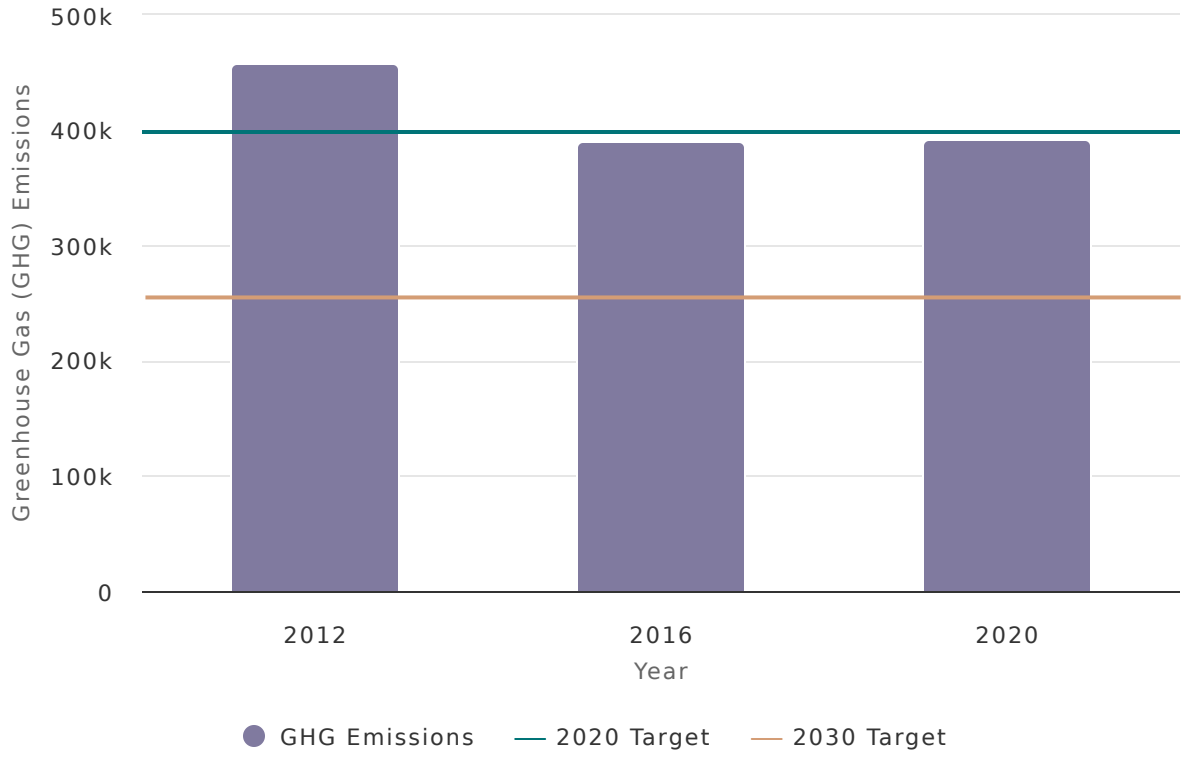
The City's CAP set a GHG emissions reduction target of ***13% below 2012 levels by 2020***. In 2020, emissions went ***down by 14.6%*** from the 2012 baseline level. While some sectors showed greater emissions reductions than others, overall, this demonstrates that ***the City achieved its 2020 target***, ***exceeding it by 1.6%***! It is also important to note that the 2020 inventory does not include reductions realized from actions the City has taken within the last two years. Most notably, with the formation of San Diego Community Power, the City began serving Encinitas residents and businesses with 100% renewable electricity in 2021, vastly reducing GHG emissions from this sector. Electricity emissions are expected to decrease to nearly zero in future GHG inventories.

See next page for graph

GHG Inventory

GHG Emissions Calculations and Trends (continued)

Note: The 2020 GHG inventory is based on best available emissions data, which includes 2020 data for all sectors except transportation, which relies on data from 2018.



Section 2

Implementation Progress Summary

When the Climate Action Plan (CAP) was updated in 2018 the City also developed a comprehensive CAP Implementation Plan which outlines how the City will implement CAP actions and monitor progress.

Implementation of certain actions requires the City to develop and implement new ordinances, programs, and projects, or modify existing ones. This involved careful consideration of the operational and capital resources needed, as well as timing, phasing, and monitoring of implementation.

Section 2

Implementation Progress Summary

In this section, the City's progress on each Climate Action Plan (CAP) initiative is summarized with a brief description, the implementation timeline, the current status of implementation, and the co-benefits that will be realized when the action is implemented. The table at the end of this section offers a progress summary of each CAP measure, its timeline and status. The information found in the table and subsequent overview of each of the CAP strategy sections represents progress tracked through 2022. In 2022, the City made progress on implementing multiple CAP measures via a variety of projects and programs.

Building Efficiency, Renewable Energy, and Clean & Efficient Transportation

Readoption of Green Building Regulations

City Council readopted its green building regulations, Ordinance Nos. 2022-13 and 2022-14, on October 26, 2022. Collectively the ordinances address energy efficiency, building decarbonization, electric vehicle charging, solar installation, and water conservation.

The original regulation became effective on August 2, 2022, and the readopted regulations went into effect concurrent with the readopted local building code on January 1, 2023.

The green building regulations support the following eight CAP measures:

- BE-1: Adopt a Residential Energy Efficiency Ordinance
- BE-2: Require Decarbonization of New Residential Buildings
- BE-3: Adopt Higher Energy Efficiency Standards for Commercial Buildings
- BE-4: Require Decarbonization of New Commercial Buildings
- RE-2: Require New Homes to Install Solar Photovoltaic (PV) Systems
- RE-3: Require Commercial Buildings to Install Solar Photovoltaic (PV) Systems
- CET-4: Require Residential Electric Vehicle Charging Stations (EVCS)
- CET-5: Require Commercial Electric Vehicle Charging Stations (EVCS)

Section 2

Implementation Progress Summary

Clean & Efficient Transportation
Community Bikeshare Program Established

In partnership with the City, BCycle launched their pilot bikeshare program in January 2022. BCycle installed 131 docking stations for 67 electric bikes (e-bikes) throughout Encinitas providing access to an affordable and clean transportation alternative for residents and tourists. Throughout 2022, over 10,000 rides were taken by 3,215 unique riders—offsetting an estimated 50,600 pounds of carbon emissions. BCycle's bikeshare program was extended for an additional year, through 2023, to further aid the city in achieving its GHG reduction goals outlined in the CAP, including measure CET-1.

Clean & Efficient Transportation
Electric Vehicle Charging Stations

In 2022, the number of publicly available electric vehicle charging stations (EVCS) in Encinitas increased substantially. Between 2022 and 2023, the number of publicly available EV charging stations in Encinitas doubled! Now 28 EVCS can be accessed through a variety of EV charging networks throughout the City. One of largest new projects completed in 2022 included the installation of six (6) DC Fast charging stations in the lower parking lot of City Hall, significantly increasing the EV charging capacity in downtown Encinitas. These charging stations were installed by the City and are powered by 100 percent renewable electricity, making charging up EVs at this location completely emission free! These new charging stations support CAP measure CET-5: Require Commercial EV Charging Stations and encourages more residents and visitors to purchase or lease electric vehicles.

Clean & Efficient Transportation
Municipal Telecommute Policy Implemented

In an effort to decrease the vehicle miles traveled by City employees as a means of reducing the City's GHG emissions, the City formed a new telecommuting policy in 2022. Upon returning to in-person work after Covid-19, the City reflected on the environmental and employee benefits of telecommuting during the pandemic and decided to formally reintroduce telecommuting irrespective of any governmental emergency order. City employees can now telecommute one day per week, dependent on their job function and manager approval. This satisfies CAP measure MCET-2: Adopt a Municipal Employee Telecommute Policy and avoids approximately 50 metric tons of carbon dioxide emissions equivalent (MTCO2e) annually.

Section 2

Implementation Progress Summary

Zero Waste
Organics Recycling Program Established

In 2022, curbside organic recycling became available to Encinitas residents and organic waste collection was also made available to commercial customers and multi-family residents. These new programs ensure that the City is in compliance with California Senate Bill (SB) 1383 which mandates organic waste diversion and food waste reduction. These highly anticipated waste collection programs enable all food scraps and green waste generated within the City to now be collected and processed at EDCO's new anaerobic digestion (AD) facility rather than going to the landfill. The AD process uses microorganisms to break down the organic material into digestate and renewable natural gas, two useful renewable products. All methane generated in the digestion process is captured and used to fuel EDCO's waste collection trucks. Any excess fuel product is put back into the natural gas pipeline for reuse. The digestate is nutrient-rich and can be used to make fertilizer and other beneficial organic products. Organics recycling supports CAP measure ZW-1: Implement a Zero Waste Program and significantly avoids the generation of methane gas in landfills.

Status of CAP Implementation

COMPLETE | IN PROGRESS | AWAITING RESOURCES

CAP Measure	Description	Timeline	Status
Building Efficiency			
Goal 1.1 : Reduce Building Energy Consumption			
BE-1	**Adopt a Residential Energy Efficiency Ordinance** Adopt an ordinance requiring all existing residential property owners conducting major renovations to implement energy efficiency retrofits.	Within 2 Years	✓
BE-2	**Require Decarbonization of New Residential Buildings** Adopt an ordinance requiring electrification of new residential buildings, including single family homes and low-rise multi-family homes.	Within 2 Years	✓
BE-3	**Adopt Higher Energy Efficiency Standards for Commercial Buildings** Adopt an ordinance requiring 1) all new commercial buildings, including the commercial portion of mixed-use projects, and 2) commercial building additions of 1,000 square feet or greater or alterations with a permit value of at least $200,000 to meet the 2019 California Green Building Standards Code Nonresidential Tier 1 Voluntary Measures.	Within 2 Years	✓
BE-4	**Require Decarbonization of New Commercial Buildings** Adopt an ordinance requiring the electrification of all new commercial buildings, including the commercial portion of mixed-use projects.	Within 2 Years	✓
Goal 1.2 : Reduce Municipal Operation Energy Consumption			
MBE-1	**Continue Implementation of Energy Efficient Projects in Municipal Facilities** Reduce municipal energy use below 2012 baseline energy use.	Ongoing	…
Renewable Energy			
Goal 2.1 : Achieve 100% Renewable Electricity Supply in Homes and Businesses			
RE-1	**Establish a Community Choice Energy Program** Present to City Council for the consideration of a Community Choice Energy program that increases renewable electricity supply.	Within 2 Years	✓

Status of CAP Implementation

COMPLETE | IN PROGRESS | AWAITING RESOURCES

CAP Measure	Description	Timeline	Status
RE-2	**Require New Homes to Install Solar Systems** Require: 1) New single-family homes to install at least 1.5 W solar per square feet or minimum 2 kW per home, and 2) New multi-family homes to install at least 1 W solar per square feet or minimum 1 kW per unit.	Ongoing	
RE-3	**Require Commercial Buildings to Install Solar Systems** Adopt an ordinance requiring installation of solar PV systems on 1) All new commercial buildings, including the commercial portion of mixed-use projects, and 2) Commercial building additions that increase total roof area by at least 2,000 square feet or alterations with a permit value of at least $1,000,000 that affect at least 75% of gross floor area, unless the installation is impracticable due to poor solar resources or other physical constraints, as approved by the Director of Development Services.	Within 2 Years	
Goal 2.2 : Increase Renewable Electricity Supply in Municipal Operations			
MRE-1	**Supply Municipal Facilities with Renewable Energy** Supply municipal facilities with onsite renewable energy to achieve "Net Zero Electricity" municipal operations.	Within 5 Years	
Water Efficiency			
Goal 3.1 : Reduce Citywide Potable Water Consumption			
WE-1	**Conduct Water Rate Studies and Implement Approved Water Rates** Implement approved water rates based on studies for San Dieguito Water District and Olivenhain Municipal Water District to promote water conservation.	Ongoing	
Clean and Efficient Transportation			
Goal 4.1 : Reduce Vehicle Miles Traveled			
CET-1	**Complete and Implement the Citywide Active Transportation Plan** Implement the bicycle and pedestrian projects in the Active Transportation Plan (ATP). In concert with the Housing Element housing site build-out, ATP projects are estimated to lead to a 9% shift in bicycle mode share and 8% shift in walk mode share within the vicinity of ATP projects.	Within 10 years	

Status of CAP Implementation

COMPLETE | IN PROGRESS | AWAITING RESOURCES

CAP Measure	Description	Timeline	Status
CET-2	**Implement a Local Shuttle System** Implement service routes recommended in the Encinitas Transit Feasibility Study and use compressed natural gas (CNG) buses for these routes, or implement an alternate shuttle system approved by City Council.	Within 5 Years	
Goal 4.2 : Reduce On-Road Fuel Use			
CET-3	**Improve Traffic Flow** Improve traffic flow by retiming traffic signals and installing roundabouts at intersections in the City.	Within 10 Years	
Goal 4.3 : Increase Use of Alternative Fuels			
CET-4	**Require Residential Electric Vehicle Charging Stations (EVCS)** Require new residential units to install EVCS equipment. Single family units are to install complete 40-Amp electrical circuit (EV Ready). Multi-Family units are to install EVCS equipment at 15% of the total number of parking spaces.	Ongoing	
CET-5	**Require Commercial Electric Vehicle Charging Stations (EVCS)** Require installation of EVCS at 8% of the total number of parking spaces at all new commercial buildings, including the commercial portion of mixed-use projects, and commercial building modifications, alterations, and additions with square footage larger than 10,000 square feet.	Ongoing	
MCET-1	**Transition to Zero Emission Vehicle (ZEV) Municipal Fleet** Develop a municipal fleet replacement plan to 1) Convert gasoline-fueled cars and light-duty trucks to Zero Emission Vehicles, including all-electric vehicles or other ZEV technology by 2030, and 2) Convert to renewable diesel for all diesel-fueled heavy-duty trucks by 2020.	Ongoing	
MCET-2	**Adopt a Municipal Employee Telecommute Policy** Develop a policy for City Council consideration to facilitate telecommuting by City employees, based on job function, with approval from supervisors and human resources.	Within 2 Years	
Off-Road Equipment			
Goal 5.1 : Reduce Off-Road Fuel Use			

Status of CAP Implementation

COMPLETE | IN PROGRESS | AWAITING RESOURCES

CAP Measure	Description	Timeline	Status
OR-1	**Adopt a Leaf Blower Ordinance to Limit Use of 2-Stroke Leaf Blowers** Starting in 2018, prohibit 2-stroke leaf blowers and implement the phase-out of leaf blower emissions.	Ongoing	✓
Zero Waste			
Goal 6.1 : Divert Solid Waste			
ZW-1	**Implement a Zero Waste Program** Implement a Zero Waste Program to reduce waste disposal from residents and businesses in the community.	Ongoing	✓
Carbon Sequestration			
Goal 7.1 : Increase Urban Tree Cover			
CS-1	**Develop and Implement an Urban Tree Planting Program** Develop and implement an Urban Tree Planting Program, including standards to right-size trees and minimize pruning and irrigation needs, and to promote increased carbon sequestration by trees within the community.	Ongoing	✓

Section 3

Implementation Progress by CAP Strategy

The Climate Action Plan (CAP) includes the following categories that each of the City's 20 individual CAP measures fall under:

Building Efficiency, Renewable Energy, Water Efficiency, Clean and Efficient Transportation, Off-Road Equipment, Zero Waste, and Carbon Sequestration.

Strategy 1: Building Efficiency

The Building Efficiency strategy of the City's Climate Action Plan (CAP) aims to cut back on emissions by increasing the energy efficiency of residential and commercial buildings and reducing energy use in municipal facilities. Much of the energy that powers, heats, and cools buildings in our community is generated through the burning of fossil fuels like natural gas, which releases greenhouse gases (GHG) and other harmful emissions into the air. To reduce GHG emissions, the CAP aims to set higher energy efficiency standards for residential and commercial buildings, in addition to installing energy efficiency measures at municipal facilities.

Implementation of the Building Efficiency strategy is estimated to reduce the City's GHG emissions by ***941 metric tons of carbon dioxide equivalent (MTCO2e) by 2020*** and ***675 MTCO2e by 2030***.

Residential and Commercial Buildings

COMPLETE

BE 1-4: Energy Efficiency & Decarbonization

Green Building Regulations Readoption

On October 26, 2022, the City readopted its comprehensive green building regulations (Ordinance No. 2022-13 and Ordinance No. 2022-14). These regulations were developed to effectively implement the following Building Efficiency CAP measures:

- BE-1: Adopt a Residential Energy Efficiency Ordinance
- BE-2: Require Decarbonization of New Residential Buildings
- BE-3: Adopt Higher Energy Efficiency Standards for Commercial Buildings
- BE-4: Require Decarbonization of New Commercial Buildings

Note: Ordinance Nos. 2022-13 and 2022-14 also implement Renewable Energy CAP measure RE-3, as well as Clean and Efficient CAP measures CET-4 and CET-5.

The green building regulations underwent a development process which included public outreach and receipt of input, consultation with stakeholders, cost effectiveness analysis, drafting of the building code amendments, and review and recommendation for adoption by the City's Environmental Commission.

The original ordinance went into effect on August 2, 2022, after gaining approval from the California Energy Commission (CEC) and the California Building Standards Commission (CBSC). The readopted regulations went into effect concurrent with the readopted local building code on January 1, 2023. Local building codes must be readopted by municipalities after each time the state completes its triannual building code update.

The City's green building regulations include requirements that address the following:

- Higher energy efficiency standards for residential and commercial buildings
- Installation of solar photovoltaic (PV) systems on commercial buildings
- Decarbonization of all new buildings through the required use of all-electric appliances

The following sections describe the requirements in more detail as they relate to each CAP measure. Additional information can also be found on the City's website.

Residential and Commercial Buildings

Building Energy Reduction

Homes

In accordance with the Climate Action Plan (CAP), the City's local green building regulations were adopted by City Council in 2021 and readopted in 2022 (Ordinance No. 2022-13 and Ordinance No. 2022-14) concurrent with the incorporation of the state's triannual code amendment updates. The original regulations were effective on August 2, 2022. The readopted regulations went into effect on January 1, 2023.

Ordinance Nos. 2022-13 and 2022-14 address four building-related CAP measures. Ordinance No. 2022-13 requires certain residential remodels to install energy efficiency upgrades as part of their projects. Ordinance 2022-14 requires electrification of all new single-family homes and multi-family homes. The requirements are intended to lower carbon emissions, reduce residents' energy bills, and improve indoor air quality. The CAP goals for residential buildings will be achieved if approximately ***250 homes undergo energy efficiency retrofits*** and ***1,200 homes are electrified by 2030***.

COMPLETE

BE-1: Adopt a Residential Energy Efficiency Ordinance

Residential Energy Efficiency

Ordinance 2022-13 requires residential remodels, including single- and multi-family, with a permit value of $50,000 or greater to install energy efficiency upgrades based on the building's age. Project applicants may select from various measures that can optimally meet the requirements including air duct sealing, cool roof, energy efficient lighting, energy efficient water heating, window replacement, upgraded insulation, installation of an induction stove, or installation of a heat pump appliances including water heaters, clothes dryers or heating and cooling units. The greenhouse gas (GHG) reduction target for this measure will be achieved if approximately ***250 homes undergo energy efficiency retrofits by 2030***. While staff has started tracking progress towards this target, the ordinance has only been effective since August 2, 2022; as of the end of 2022, no remodels triggering the requirement have completed construction. More data will be available in 2023 as residential remodels are permitted and constructed.

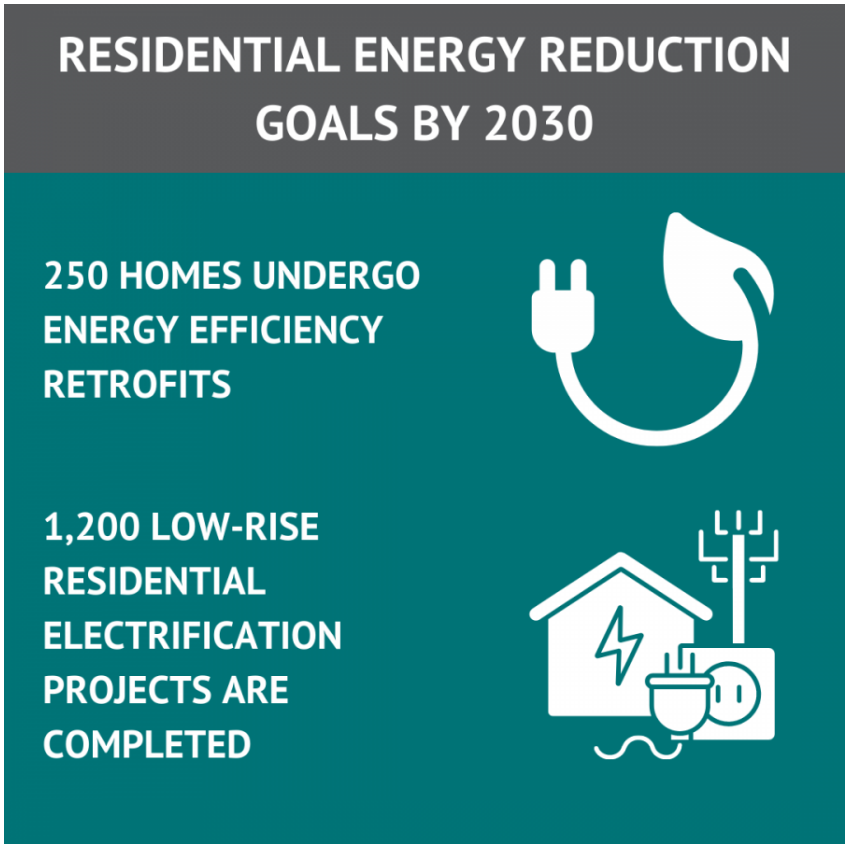
Residential and Commercial Buildings

COMPLETE

BE-2: Require Decarbonization of New Residential Buildings

Residential Building Electrification

Ordinance 2022-14 requires all new residential buildings constructed in Encinitas to be all-electric, including single family homes and multi-family homes. An all-electric building is defined as having no natural gas or propane plumbing, no gas meter connection, and only using electricity as the source of energy for space and water heating, cooking appliances, and clothes drying appliances. If applicable, an all-electric building may include solar-thermal pool heating. These requirements are intended to lower GHG emissions, reduce resident's energy bills, and improve indoor and outdoor air quality. The GHG reduction target for this measure will be achieved if ***1,200 homes are electrified by 2030***. While staff has started tracking progress towards this target, the ordinance has only been effective since August 2, 2022; as of the end of 2022, no new buildings triggering the requirement completed construction. More data will be available in 2023 as new homes are permitted and constructed.



Residential and Commercial Buildings

Building Energy Reduction

Businesses & Commercial Units

In addition to the residential requirements, the green building regulations (Ordinance No. 2022-13 and Ordinance No. 2022-14) also require higher energy efficiency standards and decarbonization for commercial (also called nonresidential) buildings.

Existing commercial projects with steel framing will trigger the energy efficiency requirement in Ordinance No. 2022-13 if they are adding at least 1,000 square feet of building space or undergoing a building alteration with a permit value of at least $200,000 . For all new nonresidential buildings, Ordinance No. 2022-14 requires all-electric construction, with limited exceptions.

The CAP goals for existing nonresidential buildings will be achieved if energy consumption of commercial projects is reduced by ***1.4 million kWh electricity use*** and ***5,000 therms natural gas use by 2030***. The CAP goals for new nonresidential buildings will be achieved if energy use is reduced in commercial spaces by ***54,000 kWh*** and ***500,000 therms by 2030***.

COMPLETE

BE-3: Adopt Higher Energy Efficiency Standards for Commercial Buildings

Energy Efficiency & Steel Framing

Ordinance 2022-14 requires commercial and residential buildings with steel framing to maximize energy efficiency by avoiding thermal bridging—weak points in buildings that cause heat loss—through exterior rigid insulation and structural design. In addition to commercial buildings like retail, office, and warehousing, the ordinance also applies to hotels, motels, and multi-family housing complexes more than three stories tall.

Existing commercial projects will trigger these requirements if they are adding at least 1,000 square feet of building space or undergoing a building alteration with a permit value of at least $200,000. The GHG reduction target for this measure will be achieved if a total reduction of ***1.4 million kilowatt hours (kWh) of electricity use*** and ***5,000 therms of natural gas use*** is accomplished by 2030. While staff has started tracking progress towards this target, the ordinance has only been effective since August 2, 2022, and no new buildings triggering the requirement have completed construction yet. More data is expected to be available in 2023 as commercial remodels are permitted and constructed.

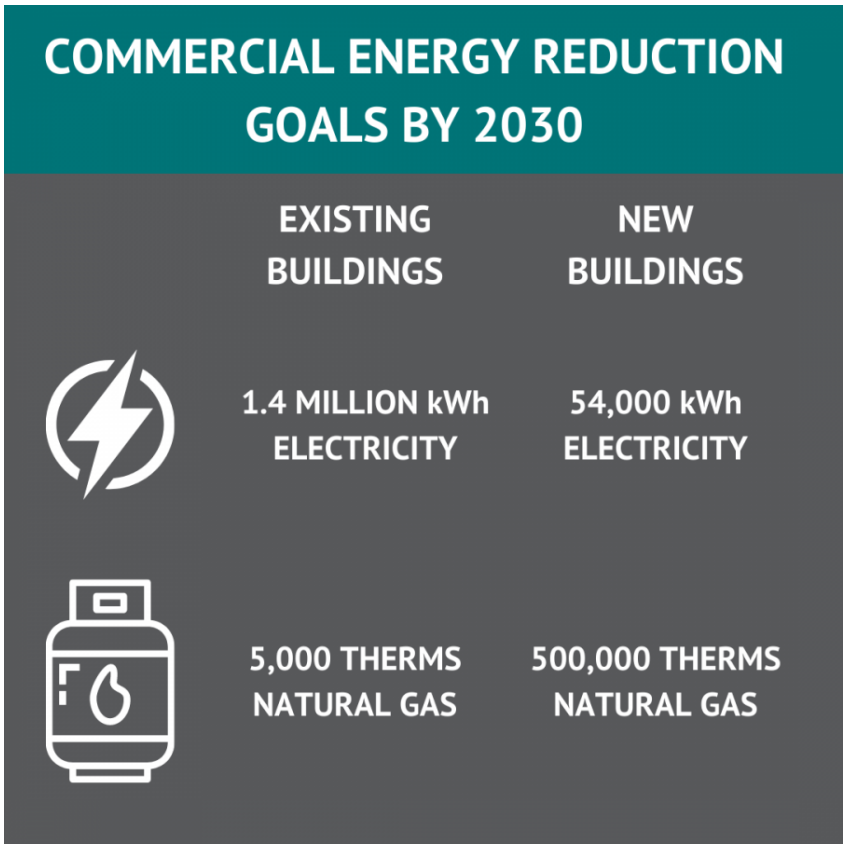
Residential and Commercial Buildings

COMPLETE

BE-4: Require Decarbonization of New Commercial Buildings

Commercial Building Electrification

Ordinance 2022-14 requires all new commercial (nonresidential) buildings in Encinitas to be all-electric, with limited exceptions. An all-electric building is defined as having no natural gas or propane plumbing, no gas meter connection, and only uses electricity as the source of energy for space and water heating, cooking appliances, and clothes drying appliances. If applicable, an all-electric building may include solar-thermal pool heating. The GHG reduction target for this measure will be achieved if a total reduction of ***54,000 kilowatt hours (kWh) of electricity use*** and ***500,000 therms of natural gas use*** is accomplished by 2030. While staff has started tracking progress towards this target, the ordinance has only been effective since August 2, 2022; as of the end of 2022, no new buildings triggering the requirement have completed construction. More data will be available in 2023 as new commercial buildings are permitted and constructed.



Municipal Facilities

IN PROGRESS

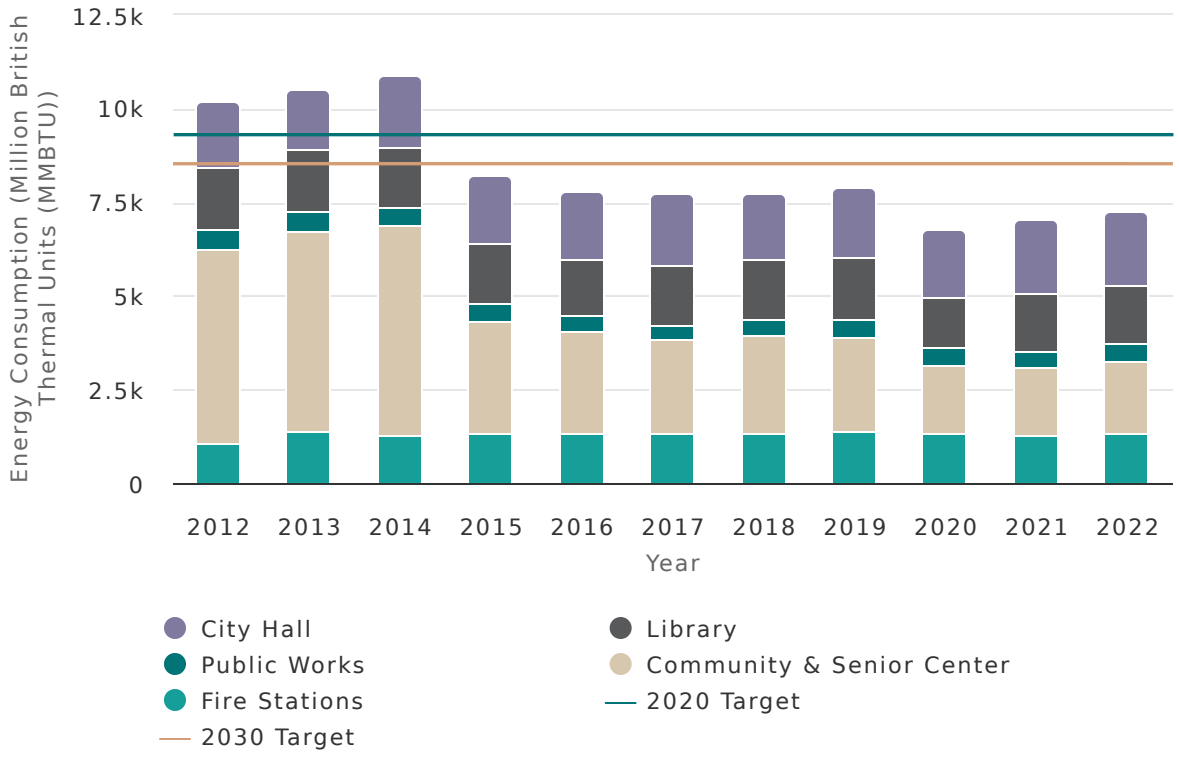
MBE-1: Continue Implementation of Energy Efficient Projects in Municipal Facilities

Energy Reduction at Municipal Facilities

The City's CAP established a goal of reducing municipal energy consumption below 2012 baseline energy use by ***7.5% by 2020*** and ***15% by 2030***. Municipal facilities include City Hall, a Public Works facility, two libraries, the Community and Senior Center, five fire stations, and numerous parks.

Since 2012, the City has seen a ***29% reduction*** in overall building energy use as a result of various energy efficiency upgrades, including more efficient lighting, upgrades to heating and air conditioning systems, and other projects. This reduction exceeds both the 2020 and 2030 CAP goals.

Major energy efficiency projects include the replacement of the Community and Senior Center building cooling system in 2015, which ***reduced energy consumption at that facility by 43%***, and the Public Works facility LED lighting retrofit in 2016. In 2022, as part of an exterior renovation of City Hall, all outdoor lighting was upgraded to LED. The City continues to identify and implement energy efficiency upgrades as opportunities arise.



Strategy 2: Renewable Energy

The Renewable Energy Strategy in the City's Climate Action Plan (CAP) aims to increase supply and access to renewable energy for existing and new residences, commercial properties, and municipal facilities. Transitioning from fossil fuels to renewable energy sources like solar and wind will reduce pollution, including greenhouse gas (GHG) emissions.

To accomplish this, the City's CAP calls for the launch of a Community Choice Energy (CCE) program, the installation of solar panels on homes and businesses, and the addition of solar panels on municipal facilities, among other initiatives. Implementation of these measures is estimated to reduce the City's GHG emissions by ***434 metric tons of carbon dioxide equivalent (MTCO2e) by 2020*** and ***20,935 MTCO2e by 2030***.

Community Choice Energy

COMPLETE

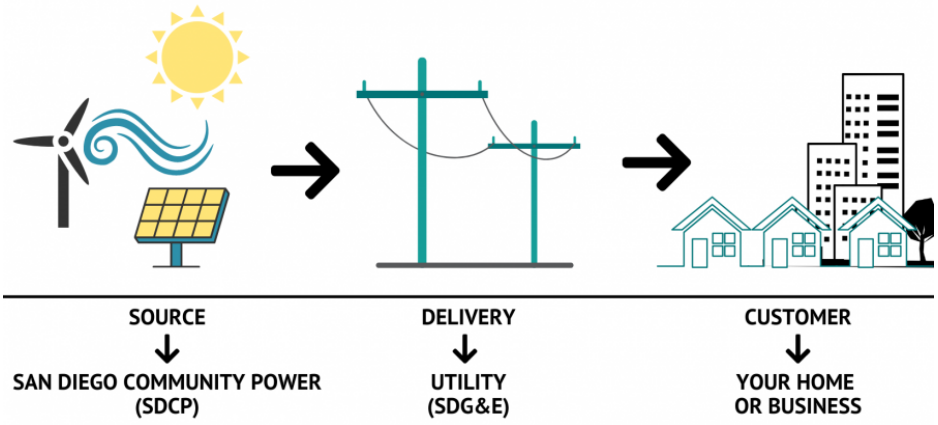
RE-1: Establish a Community Choice Energy Program
100% Renewable Electricity by 2030

One of the key goals of the City's Climate Action Plan (CAP) was to launch a Community Choice Energy (CCE) program that serves 100% renewable electricity to customers by 2030. CCE programs are not-for-profit, locally controlled energy agencies that purchase clean electrical power on behalf of residents and businesses.

In 2019, after the completion of a Technical Feasibility Study, the City formed a CCE Joint Powers Authority along with the cities of San Diego, Chula Vista, La Mesa, and Imperial Beach. Operating as San Diego Community Power (SDCP), the new agency began serving power to customers on March 1, 2021. Service was rolled out in the following phases:

- Phase 1: March 1, 2021 - Municipal Customers
- Phase 2: June 1, 2021 - Commercial Customers
- Phase 3: April 1, 2022 - Residential and Solar Customers (Net Energy Metering)

As part of this roll-out, Encinitas City Council voted to establish SDCP's premium product, Power100, as the default electricity choice for all customers within the City of Encinitas. Power100 provides 100% renewable electricity to customers at a cost that is only marginally greater than San Diego Gas and Electric's (SDGE) current rates, 1 to 3% greater depending on the rate class. ***This action enables the City to achieve its 100% renewable electricity goal well in advance of the 2030 target date***.



Community Choice Energy

COMPLETE

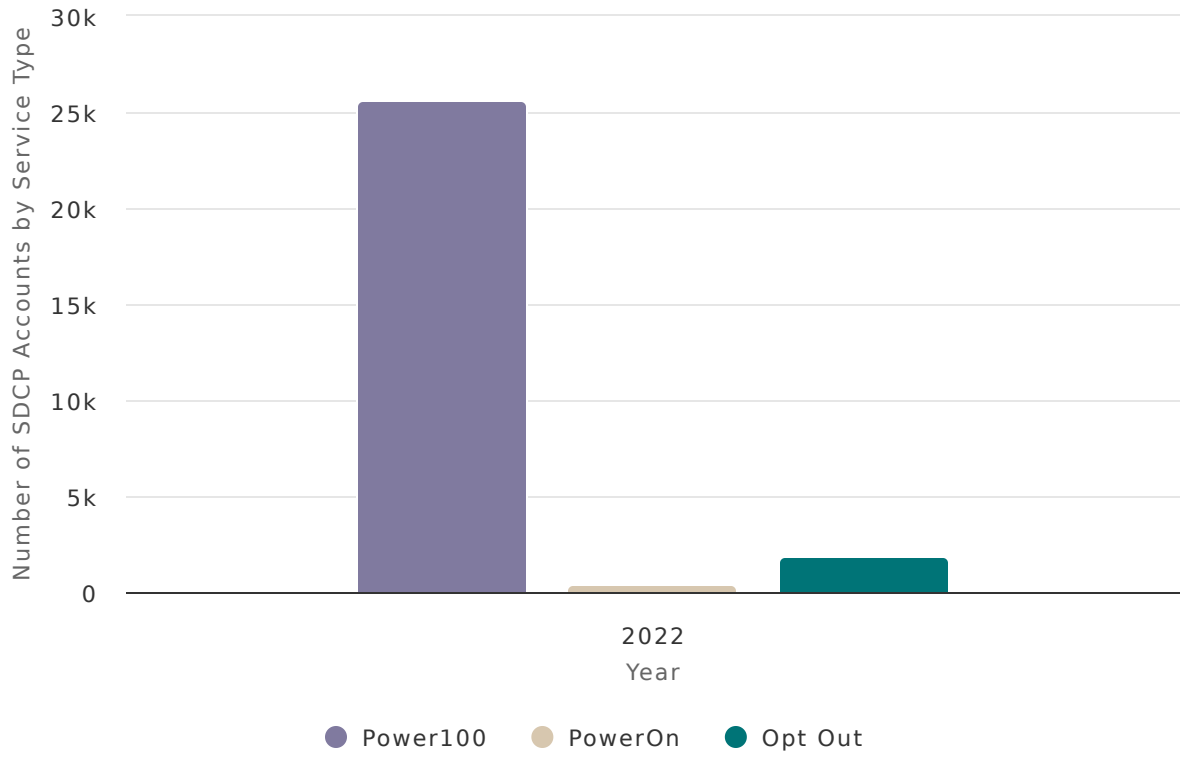
RE-1: Establish a Community Choice Energy Program

Number of SDCP Accounts by Service Type

In 2022, ***98.4% of accounts were subscribed to Power100 (100% renewable)*** and 1.6% were subscribed to PowerOn (50% renewable). From the total active accounts, only 423 customers choose to opt down from Power100 to PowerON. A total of 1,886 customers opted out of SDCP altogether.

To learn more about SDCP, visit their website.

Note: Graph includes data from 2022 because SDCP service rollouts were not complete until April 2022.



Community Choice Energy

COMPLETE

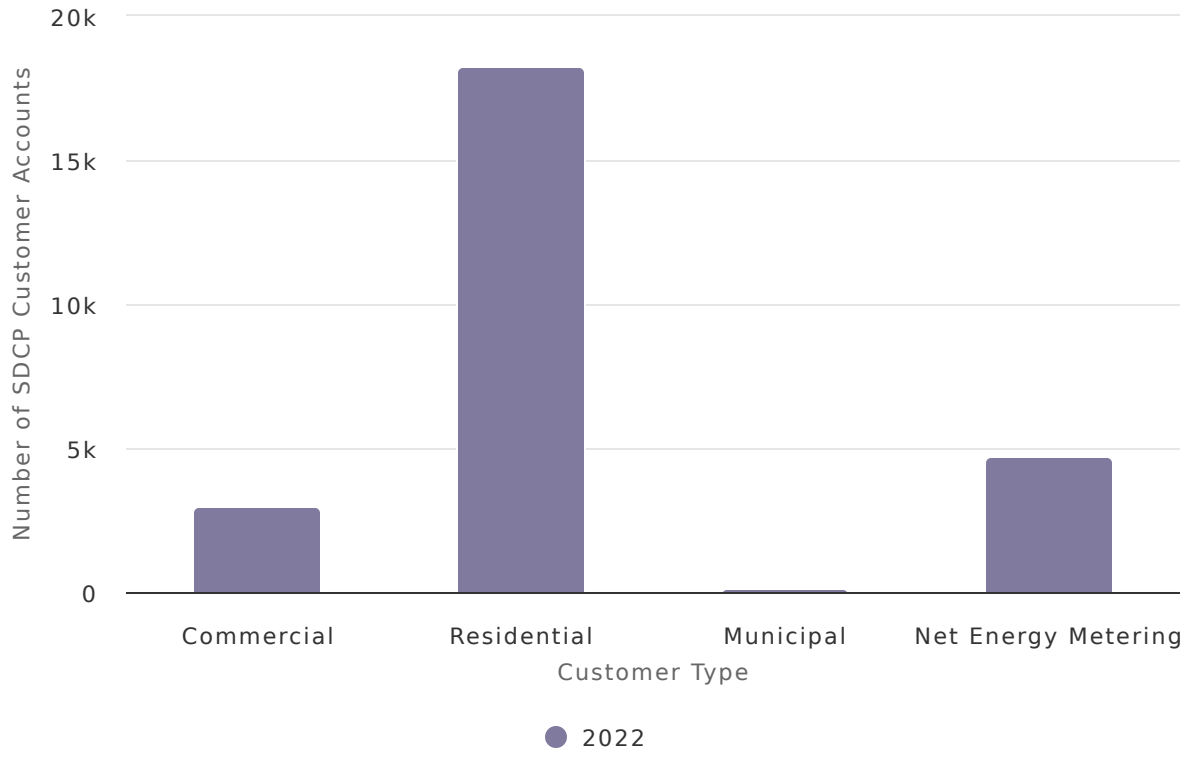
RE-1: Establish a Community Choice Energy Program

Number of Active SDCP Accounts by Customer Type

In 2022, SDCP recorded ***26,067 active accounts in Encinitas***, which includes municipal, commercial, residential, and solar accounts. The City has a SDCP participation rate of 93.3%.

To learn more about SDCP, visit their website.

Note: Graph includes data from 2022 because SDCP service rollouts were not complete until April 2022.



Homes and Businesses

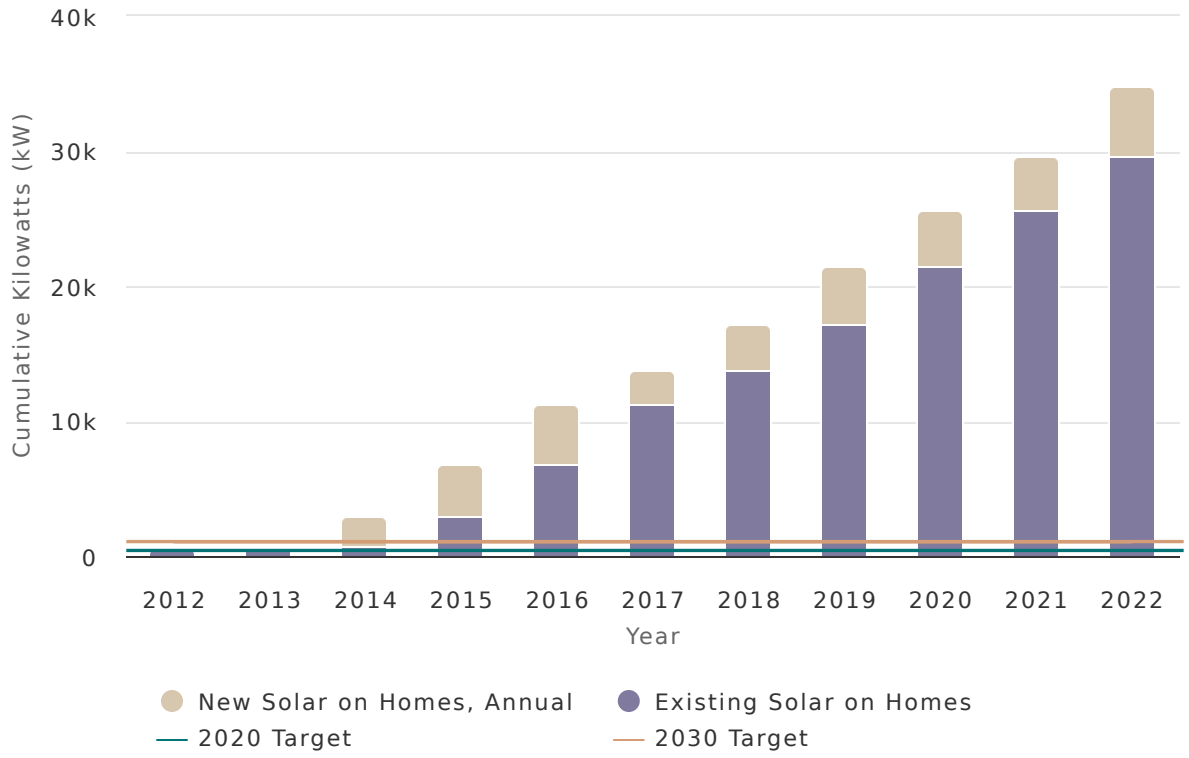
COMPLETE

RE-2: Require New Homes to Install Solar Systems

Residential Solar Photovoltaic (PV) Systems

In 2015, the City adopted Ordinance No. 2015-13 which incorporated new statewide residential solar requirements into its local building code. In 2022, in accordance with the state's triannual code update, the City updated its local building code through the adoption of Ordinance No. 2022-13 which still includes solar requirements for residential buildings. All new single-family and multi-family homes up to three stories in California are required to install a solar photovoltaic (PV) system large enough to meet the average annual electricity usage of the building. This supports the City's Climate Action Plan (CAP) goal to install ***400 kilowatts (kW)*** and ***1,000 kW of additional residential solar by 2020*** and ***2030*** on newly constructed buildings, respectively.

Over the past several years, many residents have also voluntarily installed solar panels on their homes. Residential solar PV systems typically range in size from 5 to 20 kW per home. In 2022, ***5,224 kW of solar*** were installed on residential properties. Together with the statewide residential solar mandate, between 2012 and 2022, a cumulative total of 34,868 kW of solar has been installed on 5,249 homes in Encinitas.



Homes and Businesses

COMPLETE

RE-3: Require Commercial Buildings to Install Solar Systems

Commercial Solar Photovoltaic (PV) Systems

The CAP calls for increasing solar photovoltaic (PV) systems on commercial buildings to reduce greenhouse gas emissions (GHG) from commercial electricity use. To achieve this goal, the City adopted local green building regulations — first adopted in 2021 and then amended in 2022—which requires solar PV systems to be installed on commercial building additions and alterations of a certain size or permit value. All new commercial buildings must also install PV systems in accordance with California Energy Code (Title 24, Part 6). To maintain consistency with the California Energy Code, the ordinance defines commercial buildings as "nonresidential" buildings. In addition to commercial buildings like retail, office, and warehousing, the ordinance also applies to hotels and motels.

These requirements support the City's CAP goal to install ***2.7 megawatts (MW) of solar by 2030*** on new and retrofit nonresidential projects. While staff has started tracking progress towards this target, the ordinance has only been effective since August 2, 2022; as of the end of 2022, no remodels triggering the requirement have completed construction. More data will be available in 2023 as commercial projects are permitted and constructed.

Some nonresidential properties have already voluntarily installed solar panels. Between 2012 and 2022, a cumulative total of ***3,983 kilowatts (kW) of solar*** were installed at 104 commercial properties in Encinitas. In 2022 alone, ***36 kW of solar*** were installed on non-residential properties.

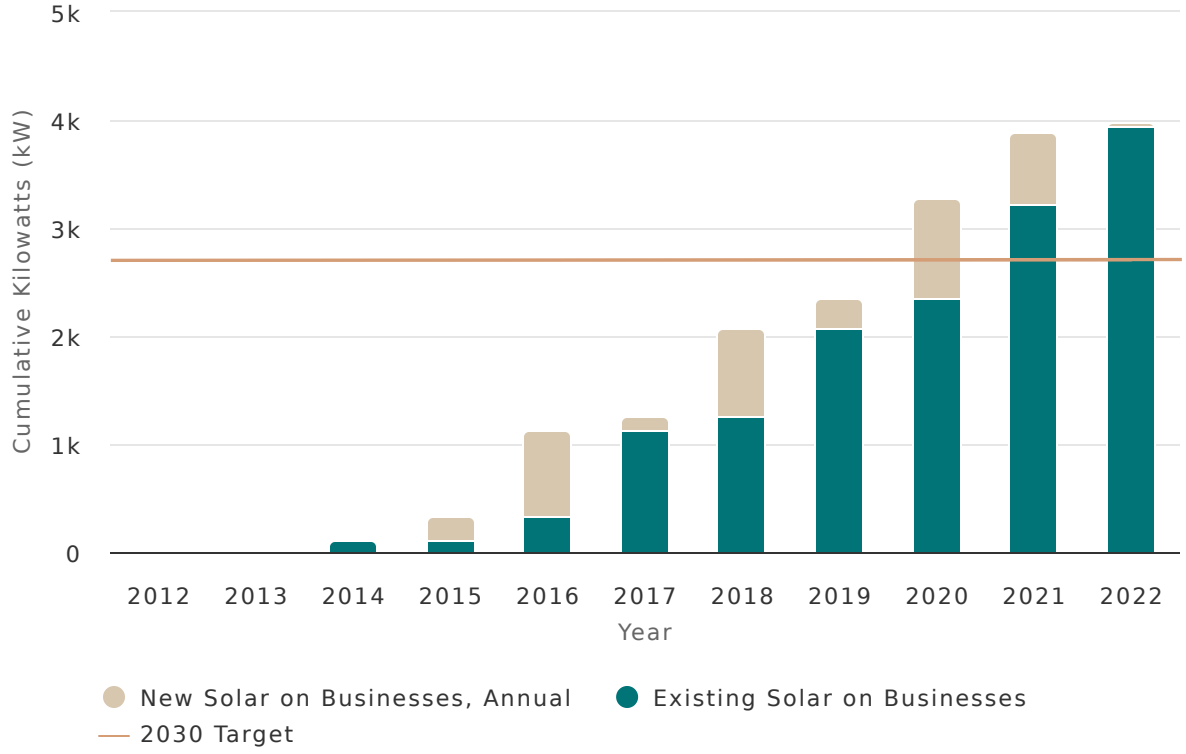
See next page for graph

Homes and Businesses

COMPLETE

RE-3: Require Commercial Buildings to Install Solar Systems

Commercial Solar Photovoltaic (PV) Systems (continued)



Municipal Operations

IN PROGRESS

MRE-1: Supply Municipal Facilities with Renewable Energy

Municipal Facilities with On-Site Renewable Energy

The City's CAP set an ambitious goal of supplying all municipal facilities with enough onsite renewable energy to achieve "Net Zero Electricity." This means that municipal buildings would generate as much electricity as they consume. The City aims to supply ***50% of its municipal energy needs from renewable sources by 2020*** and ***100% by 2030***.

In 2008, the City installed a ***96-kilowatt (kW)*** solar PV system at City Hall. The system generates approximately 150 megawatt hours (MWh) of electricity each year which is equivalent to about 7% of the City's total municipal building electricity use, annually.

In 2019, the City hired an energy consultant to design and install solar PV systems for the Community and Senior Center, the Public Works building on Calle Magdalena, the Encinitas Public Library, and to add more solar panels at City Hall as part of a "paid-through-savings" program. In total, the project was anticipated to increase the City's solar capacity to approximately 600 kW, which would be have served 48% of the City's total municipal electricity needs. In 2020, this project was put on hold due to COVID-19 and other competing project financing needs. This will to be revisited as part of a future City budget cycle. In the meantime, as of 2021, ***all City facilities are served with 100% renewable electricity provided by San Diego Community Power***. See RE-1 for more information.

Strategy 3: Water Efficiency

The Water Efficiency strategy of the City's Climate Action Plan (CAP) aims to reduce greenhouse gas (GHG) emissions by encouraging the community to conserve water in their homes and businesses. Clean water is an essential but limited resource that is expected to be strained even further through projected drought conditions in a changing climate. We can reduce GHGs and enhance our resilience by ensuring we all use water in the most efficient ways possible.

Implementation of water conservation measures is estimated to reduce GHG emissions by ***712 metric tons of carbon dioxide equivalent (MTCO2e) by 2020*** and ***795 MTCO2e by 2030***.

Conserve Water

COMPLETE

WE-1: Conduct Water Rate Studies and Implement Approved Water Rates

Reduce Water Use

The energy used to treat and deliver water creates greenhouse gas (GHG) emissions. Reducing water use thereby reduces energy use. The City's Climate Action Plan (CAP) set a goal of reducing water consumption in Encinitas by ***258 million gallons by 2020*** and ***672 million gallons by 2030*** from the 2012 baseline.

Encinitans will need to cut water use by an average of five gallons per day to meet the CAP's water reduction goals. For context, standard shower heads use 2.5 gallons of water per minute and older toilets use as much as 6 gallons per flush. To reduce water use, residents and businesses should consider decreasing outdoor irrigation or investing in WaterSense products, like low-flow shower heads and toilets.

The City's two water districts—San Dieguito Water District (SDWD) and Olivenhain Municipal Water District (OMWD)—regularly conduct water rate studies and adjust rates based on the cost to supply water and the cost of operations. Both water districts also offer various public education programs to encourage water conservation efforts. For example, in Fall 2022, SDWD and OMWD—in partnership with Carlsbad Municipal Water District and Santa Fe Irrigation District—encouraged water conversation by offering customers discounted rain barrels. Additionally, OWMD received the Recycled Water Community Outreach award from the WaterReuse Association of California in September 2022 for its dedication towards educating customers about the importance of water efficiency and water reuse as a drought solution.

Conserve Water

COMPLETE

WE-1: Conduct Water Rate Studies and Implement Approved Water Rates

Encinitas Water Use

To achieve the water reduction goals outlined in the Climate Action Plan (CAP), the average water consumption rate of Encinitans must equal to ***181 gallons per capita per day (GPCD) by 2020*** and ***137 GPCD by 2030***. In 2022, average water use by San Dieguito Water District (SDWD) customers was ***122 GPCD***, which is a ***reduction of 21%*** from 2012. For Olivenhain Municipal Water District (OMWD) customers, the average use was ***164 GPCD*** in 2022, which is a ***reduction of 18%*** from 2012. Note that in previous years, OMWD's data was reported as their entire service area, encompassing areas outside of the City of Encinitas. The reported data now only includes Encinitas OMWD customers. Both districts have consistently met the 2020 goal established in the Climate Action Plan (CAP).

Our water use has varied over the years, but overall, Encinitas residents tend to use more than the average American. According to the United States Geological Survey (USGS), the national average water use was 82 GPCD in 2015. Encinitas' higher water use could be a result of Southern California's dry climate and the increased need for landscape irrigation. Outdoor irrigation accounts for over 50% of total residential water use in San Diego County. In 2022, OMWD offered two free workshops on efficient irrigation and water-wise landscape design.

On October 20, 2021, SDWD declared a Level 1 Water Shortage. The shortage was declared in response to California Governor Gavin Newsom's October 19, 2021, Proclamation of a State Emergency. The governor's proclamation urged Californians to step up their water conservation efforts by voluntarily reducing water use by 15%. As of April 2023, the Level 1 Water Shortage and emergency proclamation are still in effect, however the Governor rescinded the voluntary requirement on March 24, 2023 in response to the recent winter rains. SDWD and OMWD continue to encourage customers to take conservation actions such as minimizing inefficient landscape irrigation, halting washing paved surfaces, and only serving and refilling water to restaurant patrons upon request.

In 2022, the San Elijo Joint Powers Authority partnered with SDWD and OMWD to expand water recycling through a proposed $2.2 million rehabilitation of the Wanket Reservoir. Last used in 2008, the tank repurposing will allow for much needed storage for recycled water for irrigation and industrial uses.

See next page for graph

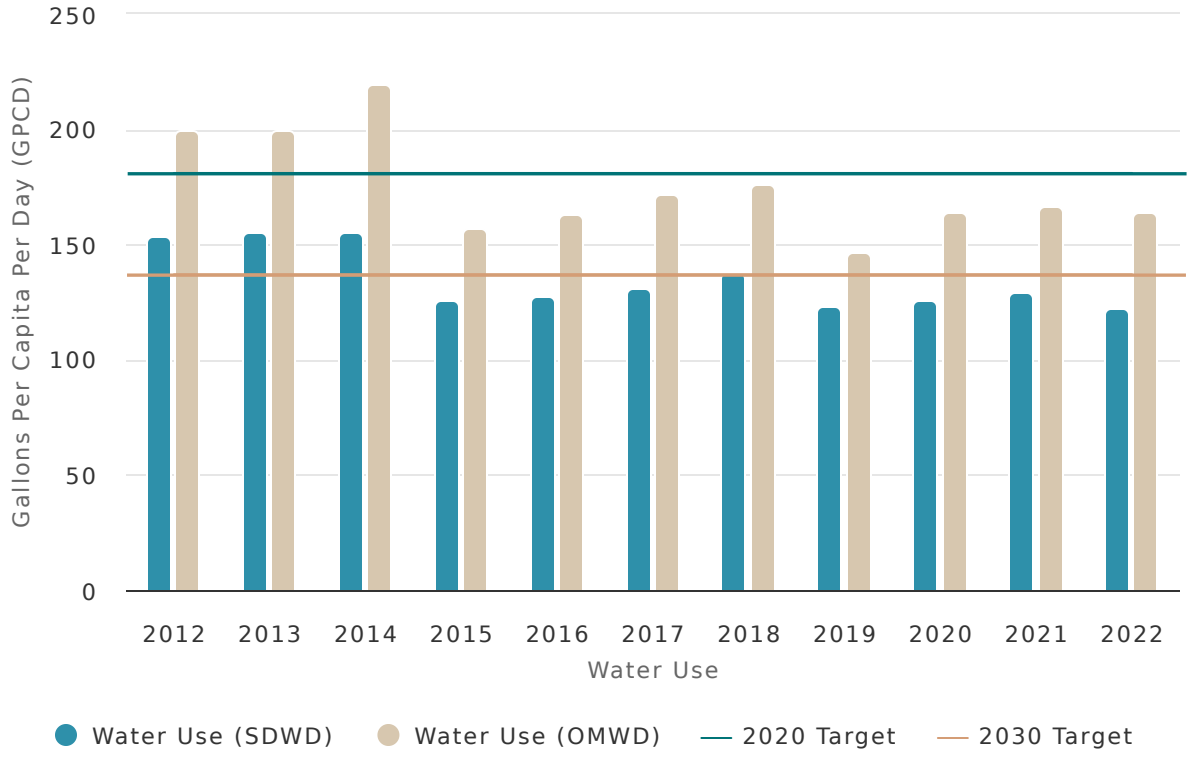
Conserve Water

COMPLETE

WE-1: Conduct Water Rate Studies and Implement Approved Water Rates

Encinitas Water Use (continued)

Note: GPCD values include all water rate classes (urban, agriculture, and environment) for SDWD and OMWD. In 2022, the OMWD GPCD data was corrected to include only the Encinitas distribution GPCD as opposed to the entire service area.



Strategy 4: Clean & Efficient Transportation

The Clean and Efficient Transportation strategy of the Climate Action Plan (CAP) leverages smart land use planning and other initiatives to encourage people to take transit, carpool, walk, or bike rather than drive alone.

This strategy also includes initiatives meant to boost the use of electric and alternative fueled vehicles when driving is necessary. Achieving greenhouse gas (GHG) emissions reductions from this strategy involves coordination with local and regional transportation and planning agencies, as well as residents and businesses. Implementation of the Clean and Efficient Transportation strategy is estimated to reduce the City's greenhouse gas (GHG) emissions ***4,481 metric tons of carbon dioxide equivalent (MTCO2e) by 2020*** and ***5,900 MTCO2e by 2030***.

Reduce VMT

Reduce Vehicle Miles Traveled

Vehicle miles traveled (VMT) data shows how much people are driving in a given timeframe. We can reduce our community's VMT by choosing transportation options like walking, biking, taking public transit, and carpooling to reduce the number of miles we drive alone. In 2012, the total VMT in Encinitas was approximately ***1.4 million miles per day***, which equates to ***538 million miles traveled*** in that year. The City's Climate Action Plan (CAP) identified two actions to reduce VMT:

1. Complete and implement a citywide Active Transportation Plan (ATP).
2. Organize a local shuttle system.

Reduce Vehicle Miles Traveled

IN PROGRESS

CET-1: Complete and Implement the Citywide Active Transportation Plan

Citywide Active Transportation Plan

The City's Climate Action Plan (CAP) established a goal of completing and implementing a citywide Active Transportation Plan (ATP). An ATP addresses local and regional bike and pedestrian travel by establishing proposed biking and walking facilities and improvements to multimodal connections to public transit. The City completed and adopted its ATP on August 22, 2018, meeting the 2020 goal. Implementation of cost-effective projects has and will continue to be initiated and major projects will be incorporated into the City's Capital Improvement Plan based on project priority and availability of funding.

After the ATP was completed, the CAP was updated in 2020 to include targets to reduce vehicle miles traveled (VMT), encourage mode shift, and cut greenhouse gas (GHG) emissions. Completion of the proposed bicycle and pedestrian projects established in the ATP would reduce emissions by an estimated ***254 metric tons of carbon dioxide equivalent (MTCO2e)***.

In 2020, the City received funding through the Caltrans Sustainable Communities Grant to begin work on the development of the Modal Alternatives Plan (MAP), which directly implements the ATP. The ATP identified needed routes, gap closures, safety considerations, and facility options. An implementation plan, which involves prioritizing the projects and identifying funding opportunities, was not part of the original ATP due to funding limitations. In 2021 and early 2022, the City hosted two public workshops and coordinated a community survey to gain constituent feedback. The purpose of the MAP is to provide City staff with a comprehensive list of prioritized ATP bike and pedestrian projects that community members wish to see built, so that the City is well-positioned to apply for grant funding. Staff presented the implementation plan to the Mobility and Traffic Safety Commission on November 14, 2022, and the Commission was supportive with minor comments. The final implementation plan is anticipated to be complete in early 2023.

Reduce Vehicle Miles Traveled

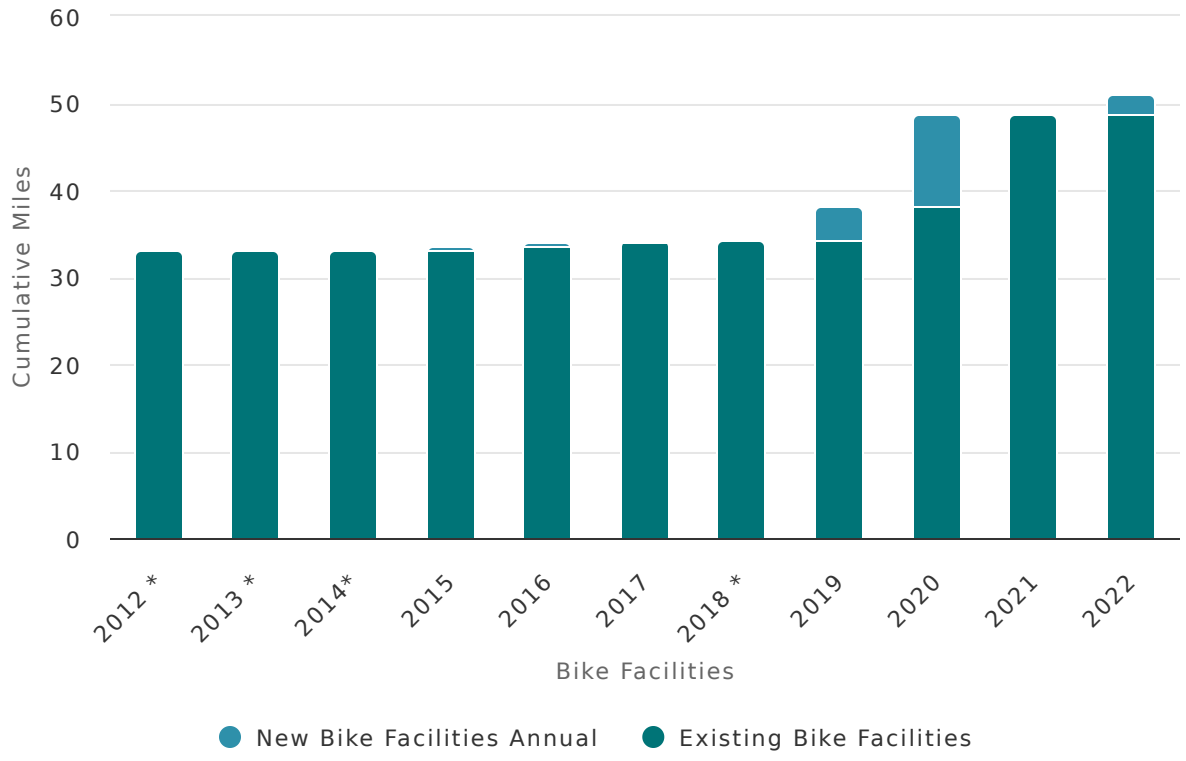
IN PROGRESS

CET-1: Complete and Implement the Citywide Active Transportation Plan

Bike Facilities

Since 2012, the City has installed a total of ***17.97 miles of bike lanes***. In 2022, the City installed ***2.46 miles of new bike lanes*** A significant portion of these new bike lanes were a part of the Leucadia Streetscape Project. For this project new buffered green bike lanes were constructed on North Coast Highway 101 from A Street to La Costa Avenue.

Note: In 2012, 2013, 2014, and 2018, the City did not track data on bike facility improvements. Although not represented in this chart, bike facility improvement projects were still completed during these years. In 2019, it was reported that the City installed 4 miles of new bike facilities. However, that data has been reevaluated and adjusted to reflect the correct mileage of 4.1 miles.



Reduce Vehicle Miles Traveled

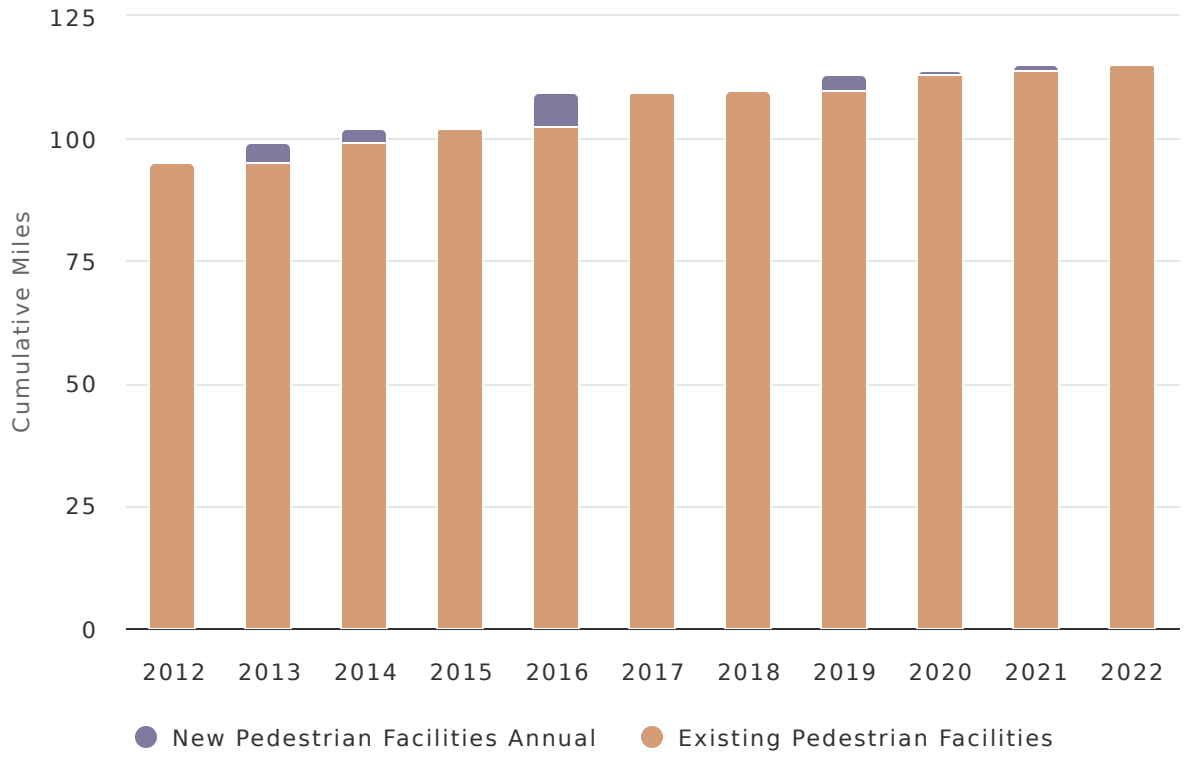
IN PROGRESS

CET-1: Complete and Implement the Citywide Active Transportation Plan

Pedestrian Facilities

Since 2012, the City has installed a total of ***20.48 miles of pedestrian facilities***. The City installed ***0.11 miles of pedestrian facilities*** including sidewalks, walkways, and crosswalks in 2022. One notable pedestrian project completed in 2022 included the opening of the El Portal Undercrossing, allowing pedestrians to safely cross between Highway 101 and Vulcan Avenue, under the railway.

Note: In 2019 it was reported that the City installed 2.75 miles of new pedestrian facilities. However, that data has been reevaluated and adjusted to reflect the correct mileage of 3.2 miles.



Reduce Vehicle Miles Traveled

AWAITING RESOURCES

CET-2: Implement a Local Shuttle System

Local Shuttle System

The City's Climate Action Plan (CAP) estimated that adding new local transit options could save ***365,000 vehicle miles traveled (VMT) in 2020*** and ***875,000 VMT in 2030***. This would result in an estimated greenhouse gas (GHG) emissions reduction of approximately ***130 metric tons of carbon dioxide equivalent (MTCO2e)*** and ***178 MTCO2e***, respectively. In 2014, the City completed a Transit Feasibility Study that recommended implementing new local transit routes to serve the Highway 101 corridor, education facilities in the city, and the Encinitas COASTER station. Since the adoption of the CAP, the City has been exploring potentially viable public transit options, including rideshare programs that may be served by microtransit electric vehicles. Microtransit is an on-demand transportation system that provides an alternative to traditional route-based transit like buses and trains. Microtransit includes more flexible transportation modes like mini-shuttles, neighborhood electric vehicles, and shared ride hailing technology like Uber and Lyft.

In 2020, the City actively collaborated with regional partners such as the San Diego Association of Governments (SANDAG), the North County Transit District (NCTD), and neighboring jurisdictions—including the cities of Solana Beach, Carlsbad, Del Mar, and Oceanside—to develop a sub-regional or local public transportation system related to this CAP measure. The partners assessed options including shared neighborhood electric vehicle (NEV) rideshare programs, such as the City of San Diego's Free Ride Everywhere Downtown program, and more traditional programs such as shuttle buses providing service to and from transit centers to employment centers. Since CAP adoption, the City has actively searched for grants and other outside funding to support this measures. The City will continue these collaboration and investigative efforts as CAP implementation continues.

Reduce Vehicle Miles Traveled

Supporting Measure: Implement Bikeshare Program

BCycle Bikeshare

Between 2018 and 2022, the City worked to launch a local bikeshare program. In 2018, the City entered a Memorandum of Understanding with several North County coastal cities to develop a bikeshare program. In 2019, the City adopted Ordinance 2019-02, which allowed for the formation and operation of a pilot bikeshare program by a City-selected vendor. In 2021, the City entered into a license agreement with BCycle, one of the largest and longest standing bike share companies in the United States, to operate a pilot bikeshare program.

In coordination with the City, BCycle launched their pilot bikeshare program in early 2022. BCycle installed 131 docking stations for 67 electric bikes (e-bikes) throughout the City. In 2022, over 10,000 rides were taken resulting in an estimated carbon offset of 50,600 pounds. The pilot bikeshare program has been extended for one more year, through January 2023, to further expand available docking stations and e-bikes, as well as increase community outreach.

Access to an affordable and clean transportation alternative, such as BCycle's e-bikes, encourages residents and tourists alike to avoid driving vehicles and opt for zero emission shared bicycle transportation instead. BCycle's bikeshare program aids the City in achieving its GHG reduction goals outlined in the CAP.

Reduce Fuel Use

IN PROGRESS

CET-3: Improve Traffic Flow

Reduce On-Road Fuel Use

Vehicle fuel usage is another way to measure how transportation impacts the climate. Reducing road congestion and improving traffic flow can lead to reductions in vehicle fuel use and greenhouse gas (GHG) emissions. The City's Climate Action Plan (CAP) identified two ways to reduce fuel use:

- Retiming traffic signals
- Installing roundabouts

Efficient signal timing and roundabouts reduce vehicle stops and starts, improve vehicle stacking time, and reduce idle time, which collectively contributes to reduced fuel use and reduced GHG emissions.

By 2020, the CAP aimed to retime ***60 traffic signals*** and install ***three roundabouts***. By 2030, the CAP proposes the installation of an ***additional four roundabouts*** to improve traffic flow. These actions would reduce GHG emissions by approximately ***3,671 metric tons of carbon dioxide equivalent (MTCO2e) in 2020*** and ***1,241 MTCO2e in 2030***.

In 2022, the construction of ***a roundabout*** on North Coast Highway 101 and El Portal Street was completed as part of the first phase of the Leucadia Streetscape project. Three other proposed roundabouts have completed the design phase. Two of these are set to begin construction in Fall 2023—located along North Coast Highway 101 at Jupiter Street and Grandview intersections. The third roundabout will be constructed on Leucadia Boulevard and Hygeia Avenue once grant funding is obtained.

The City broke ground on the Leucadia Streetscape Project—a multi-year and multi-stage project aimed to preserve and enhance the North Coast Highway 101 corridor in Leucadia—in early 2021. Construction for Segment 'A' North of Leucadia Streetscape, which occurred from Marcheta Steet to Basil Street, was completed in August 2022. Segment 'B' and 'C' safety and mobility enhancements along Basil Street to La Costa Avenue were completed in December 2022. Design for Segment 'C' West, spanning Jupiter Street to La Costa Avenue, has been allocated funds and awaits construction. The completed improvements include the El Portal roundabout, new sidewalks, new crosswalks, pedestrian trails, and green bike lanes down to Encinitas Boulevard. This projected supports CAP measure CET-3 and measure CET-1.

Reduce Fuel Use

IN PROGRESS

CET-3: Improve Traffic Flow

Reduce On-Road Fuel Use (continued)

Since the goals for on-road fuel use were established in the CAP in 2018, the City has shifted its focus to installing mobility infrastructure to promote the use of active transportation and reduce on-road fuel use, rather than adjusting traffic signal timing. That said, the City's Traffic Division is continually monitoring all of the City's traffic signals and regularly makes small adjustments to improve traffic flow and pedestrian crossing, as warranted. Although the 2020 goals for traffic signal retiming have not been met and installation of roundabouts are still in process, the continued effort and commitment to these areas represents the City's interest in prioritizing mobility improvements throughout the City to reduce GHG emissions.

Increase Use of Alternative Fuels

Drive Electric Vehicles

Vehicles that run on electricity produce fewer emissions than vehicles that run on gasoline or diesel. By supporting a network of electric vehicle charging stations (EVCS), the City can help facilitate the switch to vehicles that run on electricity. As our electricity supply becomes cleaner, so will electric vehicles. The City's Climate Action Plan (CAP) identified two actions to promote the adoption of electric vehicles:

1. Require new single-family homes to be "EV Ready" and new multi-family developments to include EV charging stations.
2. Require new and remodeled commercial developments to install EV charging stations.

Increase Use of Alternative Fuels

COMPLETE

CET-4: Require Residential Electric Vehicle (EV) Charging Stations

Residential EV Charging Stations

To increase electric vehicle (EV) adoption by residents, the City's Climate Action Plan (CAP) proposed enacting local building codes that would require new single-family homes to install electrical equipment capable of handling an EV charger, making the home "***EV Ready***." New multifamily homes are also required to install EV charging stations (EVCS) at ***15% of the parking spaces*** in the complex. In November 2019, City Council adopted an ordinance enacting these new regulations, effective January 1, 2020. These requirements were readopted concurrent with the incorporation of the state's triannual code amendment updates, effective January 1, 2023. As a result of these codes, the CAP estimated that ***65 EVCS will be installed by 2020*** and ***370 EVCS will be installed by 2030*** at new residential developments. Meeting these goals will decrease greenhouse gas (GHG) emissions by approximately ***185 metric tons of carbon dioxide equivalent (MTCO2e) by 2020*** and ***260 MTCO2e by 2030***.

According to the City's building permit data, 39 single-family residential buildings were issued new construction permits in 2022. City staff has started tracking permits to ensure "EV Ready" infrastructure is installed, and more information will be provided in future annual reports. Irrespective of the new EVCS ordinance, in 2022, ***29 EVCS*** were installed at single family residences voluntarily, according to building permit records.

In total, ***187 EVCS were permitted and installed*** at residential properties between 2012 to 2022. The City also assumes that many more EVCS have been installed than what has been reported according to the City's permit records, as anecdotally, it is known that many EV owners install home charging stations without acquiring permits from the City or directly plug into existing 110-volt wall sockets to serve their EV charging needs.

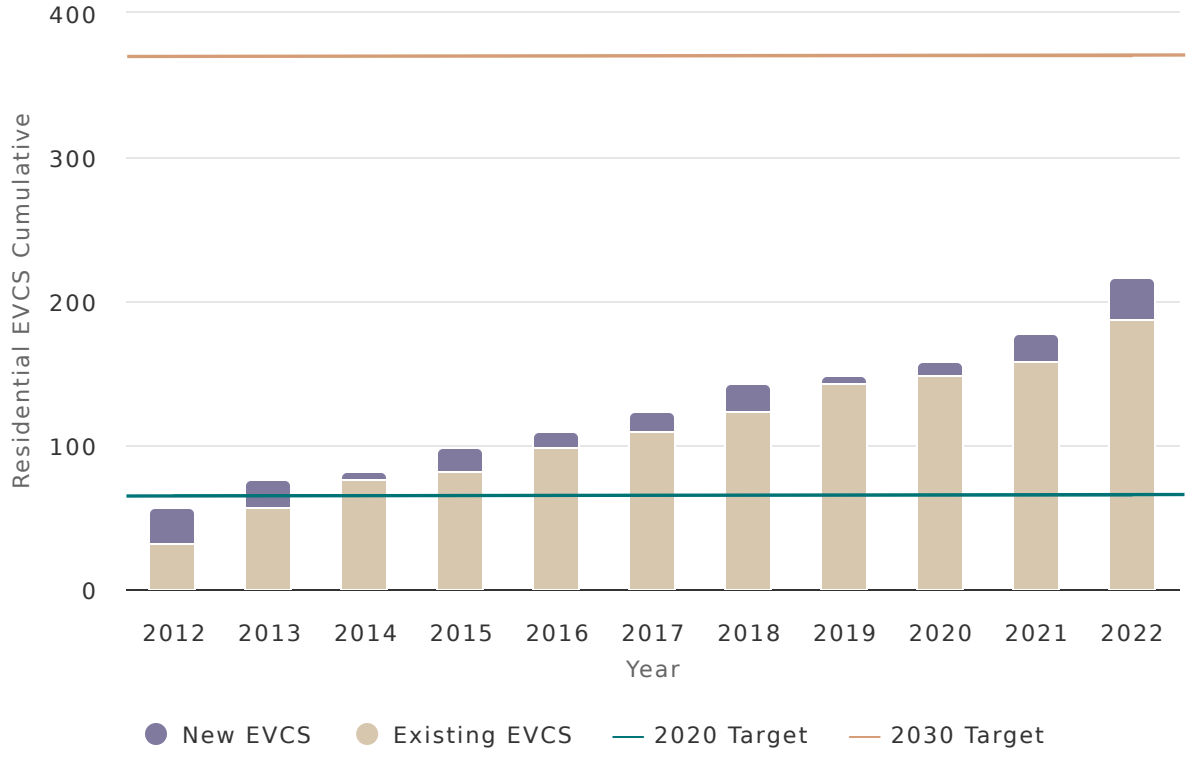
See next page for graph

Increase Use of Alternative Fuels

COMPLETE

CET-4: Require Residential Electric Vehicle (EV) Charging Stations

Residential EV Charging Stations (continued)



Increase Use of Alternative Fuels

COMPLETE

CET-5: Require Commercial Electric Vehicle (EV) Charging Stations

Commercial EV Charging Stations

To increase electric vehicle (EV) adoption by residents, the City's Climate Action Plan (CAP) proposed enacting local building codes requiring the installation of EV charging stations at ***8% of the total number of parking spaces*** at commercial developments. This new requirement would apply to all new commercial developments (including the commercial portion of mixed-use projects) and commercial building modifications, alterations, and additions that are 10,000 square feet or greater. In November 2019, City Council adopted an ordinance enacting this new regulation, effective January 1, 2020. This requirement was readopted concurrent with the incorporation of the state's triannual code amendment updates, effective January 1, 2023. As a result of this code, the CAP estimated that ***150 electric vehicle charging stations (EVCS) will be installed by 2020*** and ***490 EVCS will be installed by 2030*** at new commercial developments. Meeting these goals will decrease greenhouse gas (GHG) emissions by approximately ***440 metric tons of carbon dioxide equivalent (MTCO2e) by 2020*** and ***3,582 MTCO2e by 2030***.

In 2022, two commercial buildings that triggered the new local EVCS code requirements were issued permits, according to the City's building permit data. As of the end of 2022, both these projects were still under construction and had not yet completed installation of the associated EV charging stations. Permit processing and issuance will continue to be tracked to ensure EV charging regulations are enforced.

As of May 2023, the ***total number of publicly available charging stations in Encinitas was 28***. This number was determined based on information available from Plugshare, ChargeHub, the US Department of Energy, and City permit data, in addition to local knowledge of City staff. It is important to note that not all commercial charging stations may be available 24/7 and that some require users to be customers for that particular charging network or for the vehicle being charged to have the appropriate charging plug. For example, the EV chargers located at BMW Encinitas may only be used by BMW vehicle owners. Drivers can visit PlugShare to see a station location map and to get more information about each publicly available charging station located in Encinitas.

Increase Use of Alternative Fuels

COMPLETE

CET-5: Require Commercial Electric Vehicle (EV) Charging Stations

Commercial EV Charging Stations (continued)

While the ordinance is in place and being enforced, it is evident that this new requirement may not result in the number of EVCS anticipated by the CAP. To supplement this ordinance, the City is in the process of developing an Electric Vehicle Charging Station Master Plan that will identify ideal locations for charging stations and outline additional measures the City can do to implement to promote EVCS installation at commercial locations. The EV Charging Station Master Plan is expected to be complete in 2023. The City is also seeking grants, funding, and other opportunities to support EVCS installation. For example, the City coordinated the installation of six public DC Fast charging stations in the lower lot of the City Hall at Vulcan Avenue and E Street. This project was formerly managed by a private entity but was taken over by the City in 2021 in order to complete the project. These charging stations were installed and became available for public use in the spring of 2022.

Location	EV Network	Charging Stations	Level 2 Plugs J1772	DC Fast Charge (DCFC) Plugs		
				Tesla	CHAdeMO	CCS
Lazy Acres	EVgo	1	3 (7.2 kW)	1	1 (50 kW, one at a time)	1
City of Encinitas	EVgo	6	-	-	6 (50 kW, six at a time)	6
	Blink	1	1 (non-functional)	-	-	-
Lux Art Institute	ChargePoint	1	2 (6.48 kW)	-	-	-
Scripps Health	ChargePoint	1	2 (6.6 kW)	-	-	-
San Elijo Water Reclamation	ChargePoint	3	6 (6.48 kW)	-	-	-
MiraCosta College San Elijo Campus	ChargePoint	3	5 (6.6 kW)	-	-	-
Encinitas Ford	Non-network	2	2	-	-	-
BMW Encinitas	ChargePoint	3	2 (6.6 kW)	-	-	2 (25 kW)
Alila Marea Beach Resort Encinitas	Non-network	5	5			
Rodeway Inn	SemaConnect	1	2 (16.64 kW)	-	-	-
Union Bank	Loop	1	-	-	2 (50 kW)	-
Total		28	30		19	

Transition to Zero Emission Municipal Fleet

IN PROGRESS

MCET-1: Transition to Zero Emission Municipal Fleet

Transition to Zero Emission Municipal Fleet

The City's Climate Action Plan (CAP) set a goal of transitioning the City's municipal fleet to "zero emission" or alternative fuels by 2030. Examples of zero emission vehicles (ZEVs) include battery electric vehicles and fuel cell vehicles. Other low-emission vehicles like hybrids, plug-in hybrids, and compressed natural gas vehicles also contribute to reduced greenhouse gas (GHG) emissions. In February 2018, the City drafted a ZEV Fleet Conversion Plan to achieve the CAP goal. According to the plan, the City will convert all light-duty vehicles to electric vehicles and all heavy-duty vehicles to renewable diesel. The City's CAP estimated that this measure would ***reduce fleet fuel use by 10% by 2020*** and ***30% by 2030***, which reduces GHG emissions by ***55 metric tons of carbon dioxide equivalent (MTCO2e)*** and ***384 MTCO2e***, respectively.

In 2022, the City's municipal fleet included ***11 battery-electric vehicles***, ***1 plug-in hybrids***, and ***10 hybrid vehicles***, with ***22 clean fleet vehicles in total***. EVs make up ***41% of the light duty fleet***—the portion of the fleet that commonly have EV alternatives available in the market. In accordance with the ZEV Fleet Conversion Plan, City vehicles are evaluated annually and vehicle replacements are budgeted and scheduled as needed. Whenever possible, EVs are selected as replacement vehicles in the light-duty class. In 2018, to support the transition to electric vehicles, the City installed ***10 EV charging stations*** at the Public Works Yard through San Diego Gas and Electric's (SDGE) "Power Your Drive" program. In 2022, ***10 charging stations*** were installed at City Hall as a part of an exterior renovation project. These chargers will be used to charge City fleet vehicles. As part of the EV Charging Station Master Plan, the City will evaluate where additional charging stations can be installed at public facilities. Some location being considered include the Community and Senior Center and the Encinitas Library.

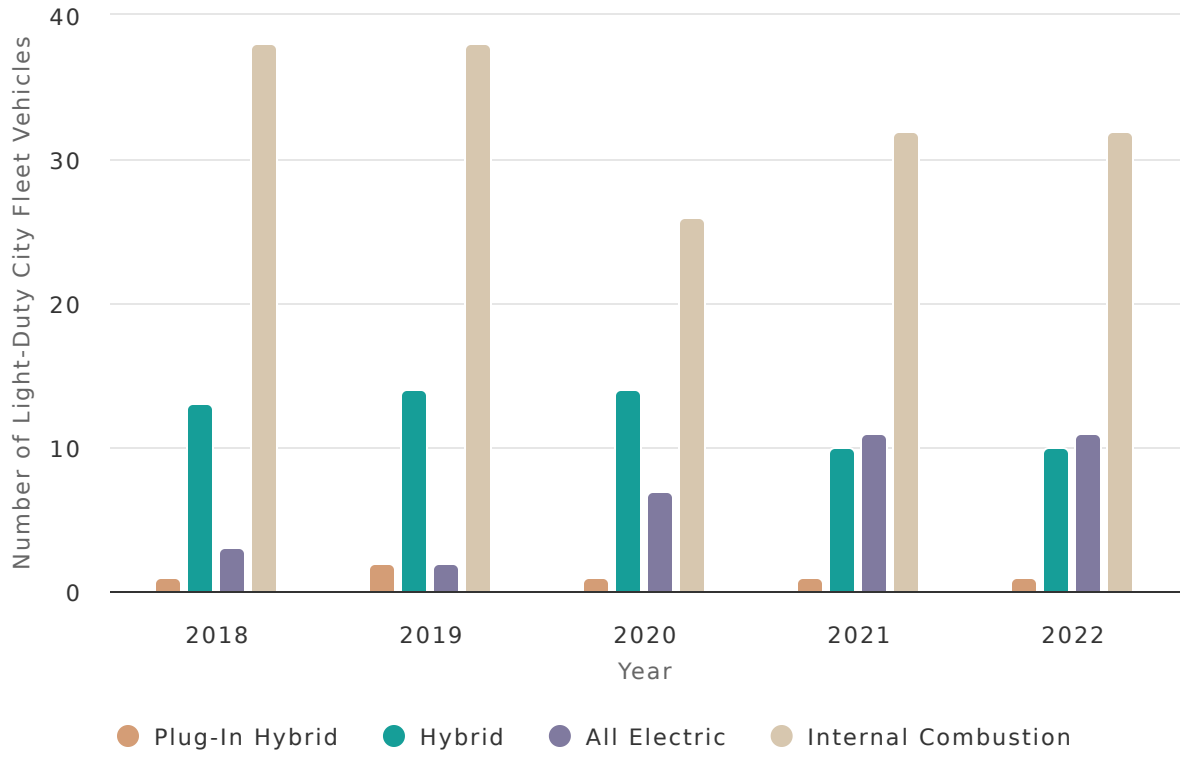
See next page for graph

Transition to Zero Emission Municipal Fleet

IN PROGRESS

MCET-1: Transition to Zero Emission Municipal Fleet

Transition to Zero Emission Municipal Fleet (continued)



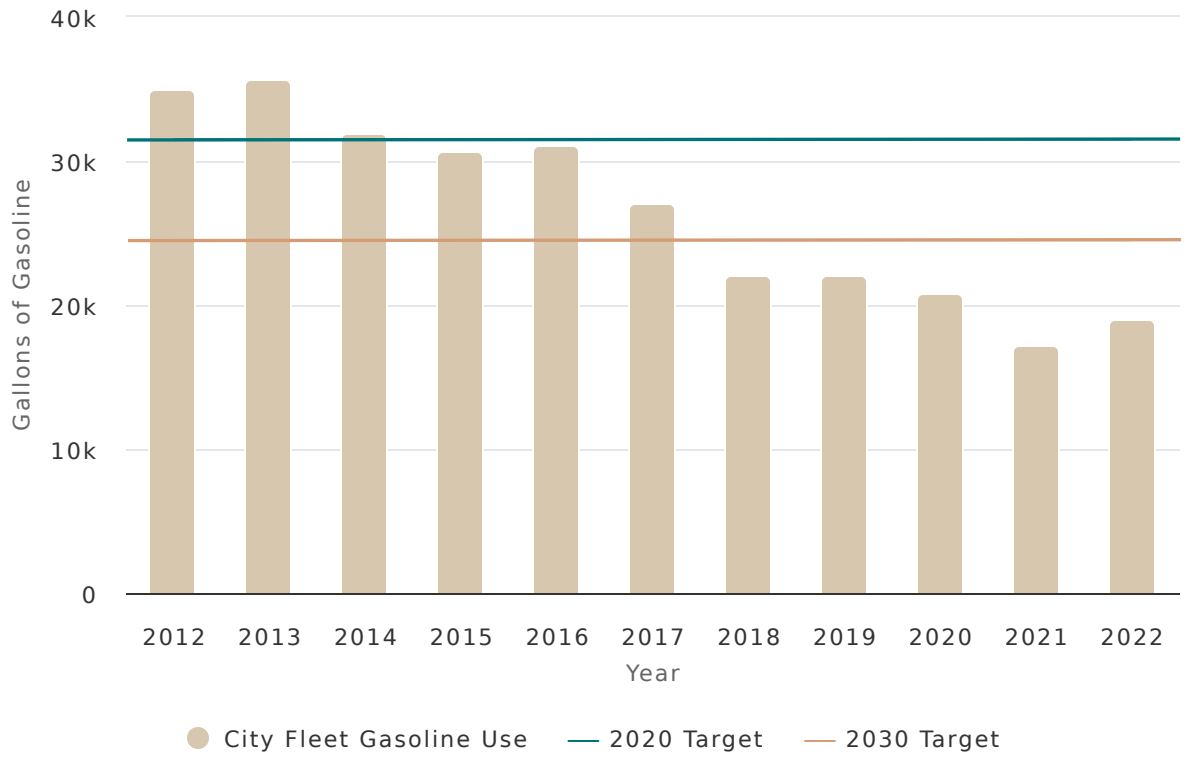
Transition to Zero Emission Municipal Fleet

IN PROGRESS

MCET-1: Transition to Zero Emission Municipal Fleet

Purchasing EVs and Reducing Gasoline Use

Since 2012, due to the transition to EVs and right-sizing the fleet, ***total gasoline use by City vehicles has decreased by 46%***, far exceeding the 2020 goal and making great strides towards a zero-emission light duty fleet by 2030. In 2022, the City continued receiving deliveries of renewable diesel fuel for municipal fleet use. Renewable diesel is made from products that would otherwise be wasted, such as natural fats, vegetable oils, and greases, as opposed to conventional diesel which is derived from extracted petroleum. Renewable diesel is chemically similar to conventional diesel but generates fewer emissions and other harmful substances when burned.



Transition to Zero Emission Municipal Fleet

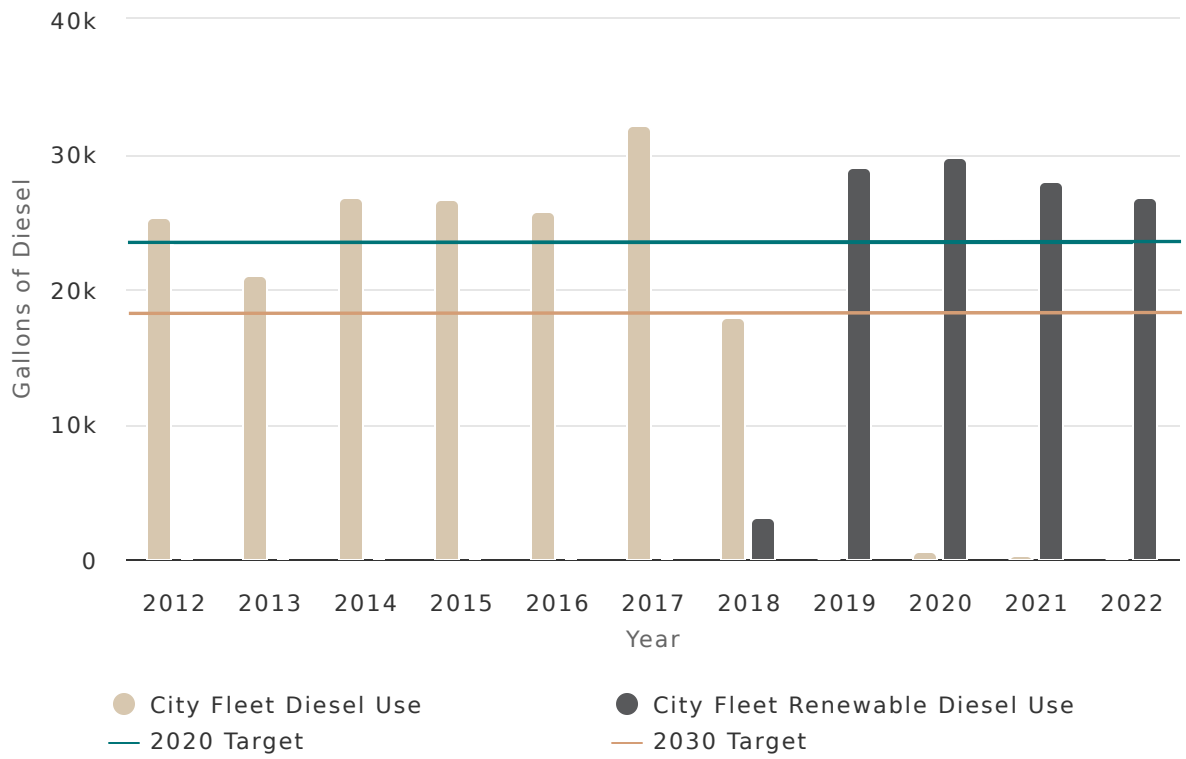
IN PROGRESS

MCET-1: Transition to Zero Emission Municipal Fleet

The Switch to Renewable Diesel

All City fleet diesel-fueled vehicles—including pickups, dump trucks, fire trucks, and stationary generators—are now fueled by renewable diesel. The City tracks diesel use and, since 2012, there has been a ***99% decrease in use of conventional diesel fuel***, mainly due to an increase in use of renewable diesel. The City's overall ***renewable diesel consumption has increased by 751%*** since 2012. The switch to renewable diesel in 2018 enabled the City to far exceed both the 2020 and 2030 CAP goals for renewable diesel several years early.

Note: In 2018, it was reported that the City consumed 7,879 gallons of renewable diesel. However, that data has been reevaluated and adjusted to reflect the correct amount of 3,158 gallons.



Transition to Zero Emission Municipal Fleet

COMPLETE

MCET-2: Adopt a Municipal Employee Telecommute Policy

Municipal Telecommute Policy

When the City's CAP was updated in 2020, measure MCET-2 was added, making it the CAP's 20th measure. This measure involves developing and implementing a telecommuting policy for City employees. It assists in decreasing the City's overall greenhouse gas (GHG) emissions by reducing the number of vehicle miles traveled by City employees. The City's CAP estimated that this measure would ***avoid 170,000 miles of commuting*** to and from municipal facilities and reduce GHG emissions by 5***0 metric tons of carbon dioxide equivalent (MTCO2e) in 2030***.

The initial phase of the policy launched in the summer of 2022. City employees now have the choice to telecommute one day per week, contingent on their job function and management approval. For example, Public Works crews must be onsite to conduct maintenance in the field and are not able to telecommute. In future years, the City will consider expanding the program to allow an additional number of days that employees can commute. Program expansion will be dependent on the success of the initial phase.

Strategy 5: Off-Road Equipment

The Off-Road Equipment strategy of the City's Climate Action Plan (CAP) aims to cut back on emissions by prohibiting the use of gas-powered two-stroke leaf blowers. Transitioning away from fossil fuel powered landscape equipment will decrease greenhouse gas (GHG) emissions, reduce noise from yard care activities, reduce air particulates and debris, and prevent many other harmful emissions from polluting the air.

Implementation of this strategy is estimated to reduce the City's GHG emissions by ***128 metric tons of carbon dioxide equivalent (MTCO2e) by 2020*** and ***142 MTCO2e by 2030***.

Leaf Blower Use

Off-Road Emissions

Leaf Blower Emissions and Alternatives

The Off-Road Equipment strategy of the City's Climate Action Plan (CAP) aims to cut back on emissions by prohibiting the use of gas-powered two-stroke leaf blowers. Transitioning away from fossil fuel powered landscape equipment will decrease greenhouse gas (GHG) emissions, reduce noise from yard care activities, reduce air particulates and debris, and prevent many other harmful emissions from polluting the air. According to the California Air Resources Board, two-stroke leaf blowers are among the top four most used types of off-road equipment.

Alternatives to gas-powered leaf blowers include electric- and battery-powered leaf blowers, human-powered equipment, and preventing the need for equipment through smart landscaping and planning. These alternative options not only generate less noise, but also produce little to no harmful air pollutants.

Leaf Blower Use

COMPLETE

OR-1: Adopt a Leaf Blower Ordinance to Limit Use of 2-Stroke Leaf Blowers

Clean Up Alternatives

The City's Climate Action Plan (CAP) set a goal to reduce greenhouse gas (GHG) emissions by phasing out the use of gas-powered two-stroke engine leaf blowers. To achieve this, measure OR-1 directs the City to adopt a leaf blower ordinance to eliminate the use of gas-powered throughout the City of Encinitas.

The CAP estimated that ***20%*** of the emissions from lawn and garden equipment is attributed to two-stroke leaf blowers. In addition to GHG emissions, two-stroke engine leaf blowers also emit several other harmful air pollutants. The CAP estimated that phasing out the use of gas-powered two-stroke leaf blowers would reduce emissions by approximately ***128 carbon dioxide equivalent (MTCO2e) by 2020*** and ***142 MTCO2e by 2030***.

In August 2019, City Council adopted Ordinance 2019-06, prohibiting the use or operation of any leaf blower powered by a gasoline combustion engine (two-stroke or four-stroke) within City limits. Additionally, the ordinance regulates the allowed hours of operation of all leaf blowers and prohibits leaf blowers from depositing waste (leaves, debris, etc.) onto a neighboring property, street, sidewalk, gutter, or storm drain. The ordinance went into effect on January 20, 2020. Any violations of this ordinance may be reported by submitting a Code Enforcement Complaint using this online form or reporting an issue using the MyEncinitas app which can be downloaded to your phone here.

Strategy 6: Zero Waste

The Zero Waste strategy in the City's Climate Action Plan (CAP) aims to reduce the amount of waste sent to local landfills. Methane—a greenhouse gas (GHG) that is about 25 times more potent than carbon dioxide (CO2)—is emitted when waste (primarily organic material) decomposes in landfills. Successful implementation of this strategy depends on the expansion of recycling and composting programs, in addition to participation from City residents and businesses to reduce waste and increase diversion.

Implementation of the Zero Waste strategy is estimated to reduce the City's GHG emissions by ***2,830 metric tons of carbon dioxide equivalent (MTCO2e) by 2020*** and ***9,216 MTCO2e by 2030***.

Divert Solid Waste

COMPLETE

ZW-1: Implement a Zero Waste Program

Divert Solid Waste

The City's Climate Action Plan (CAP) aims to reduce greenhouse gas (GHG) emissions from landfills by implementing a Zero Waste Program that promotes waste prevention, recycling, and diversion of organic waste. This Program aims to ***divert 65% of Encinitas' solid waste from the landfill by 2020*** and ***80% of total solid waste by 2030***. This is equivalent to reducing our waste generation rates to ***5.3 pounds per person per day (lbs/person/day) by 2020*** and ***3 lbs/person/day by 2030***. If these goals are achieved, the CAP estimated this would result in a greenhouse gas (GHG) reduction of approximately 2,830 metric tons of carbon dioxide equivalent (MTCO2e) and 9,216 MTCO2e, respectively.

The City works closely with EDCO, our contracted waste hauler, to execute the CAP's goals. EDCO leverages green technologies, such as a state-of-the-art Resource Recovery Facility, that properly sorts the City's co-mingled recycling waste. In 2021, EDCO began collecting and processing food waste for recycling. This was an important step towards diverting organic waste away from landfills.

To learn more about the City's Zero Waste programs, visit this website.

COMPLETE

ZW-1: Implement a Zero Waste Program

Balloon Ordinance

In 2021, the City's Environmental Commission passed a recommendation to City Council to adopt an ordinance that would ban the sale, use, and distribution of lighter-than-ai r or helium balloons within City limits. City Council unanimously approved the ordinance (Ordinance 2022-01) in January 2022. The ordinance not only protects wildlife, but also reduces the amount of litter and waste generated within the City.

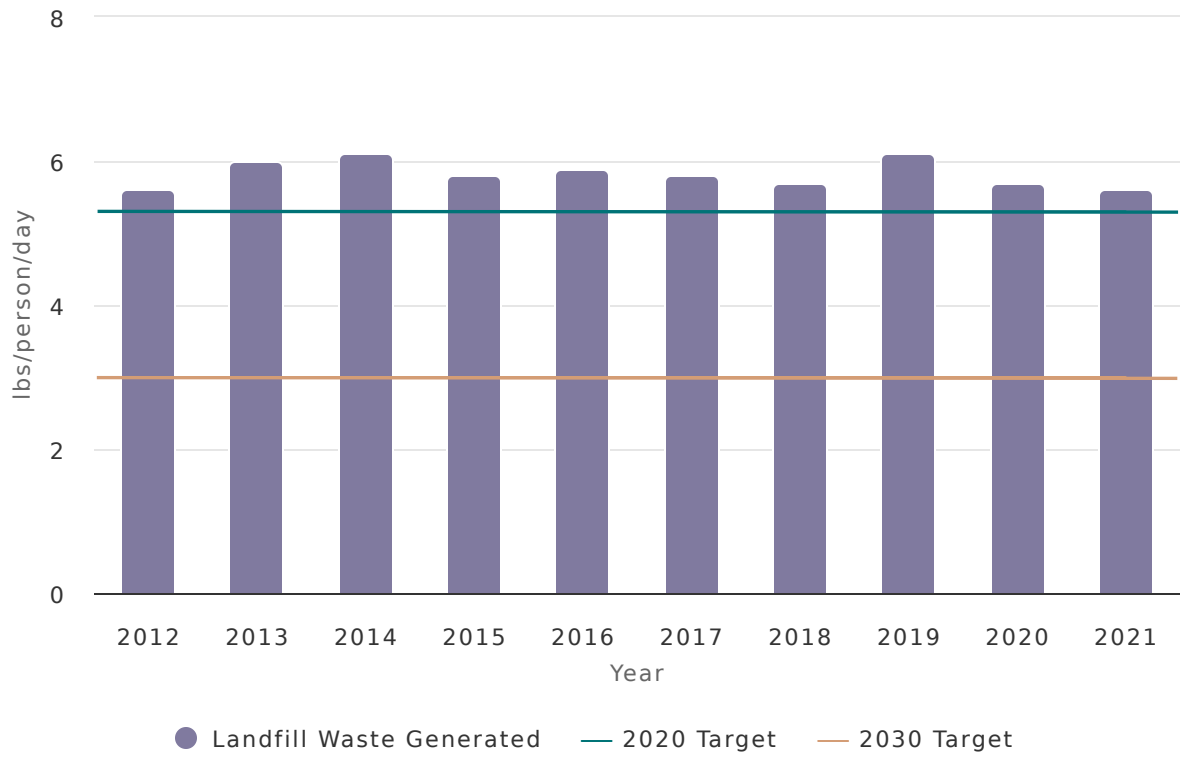
Divert Solid Waste

COMPLETE

ZW-1: Implement a Zero Waste Program

Waste Reduction

According to CalRecycle, the amount of waste generated by the City of Encinitas has fluctuated between 5.6 and 6.1 lbs/person/day since 2012. Using the most current waste generation data from 2021, the average Encinitan generates ***5.6 lbs/person/day***. Data for 2022 is not expected until 2024. Once available, the graph will be updated accordingly.



Divert Solid Waste

COMPLETE

ZW-1: Implement a Zero Waste Program

Organic (Green Waste and Food Waste) Recycling

SB 1383 requires all California residents and businesses to recycle organic waste beginning January 1, 2022. In early 2021, EDCO completed construction of an anaerobic digestion (AD) facility to serve the San Diego region, including Encinitas residents. The AD facility uses microorganisms to break down material into digestate and renewable natural gas (RNG) in an air-tight environment that eliminates the release of methane. Digestate is rich in nutrients and can be further processed into fertilizer for crops. RNG can also be used to fuel trucks or for energy, which displaces the need for fossil fuels. Food scraps and green waste generated in Encinitas are now collected and processed at EDCO's AD facility.

Curbside organics recycling for residential generators began in June of 2021. Commercial enrollment for organics collection—including multifamily properties and businesses—began in the fall of 2021 and 100% enrollment was completed in July 2022.

In 2021, the City adopted the Mandatory Organics Recycling and Edible Food Recovery Ordinance (Ordinance No. 2022-15), with an effective date of January 1, 2022. In compliance with SB 1383, Ordinance No. 2022-15 requires all generators to recycle organics, and mandates that specific edible food generators recover and donate leftover food products to local charitable food organizations.

Divert Solid Waste

COMPLETE

ZW-1: Implement a Zero Waste Program

Construction Waste Recycling and Edible Food Recovery

To comply with SB 1383, the City updated its Solid Waste Management and Construction and Demolition Debris Recycling ordinances in 2021 (Ordinance Nos. 2022-16 and 2022-17). These include a 5% increase (from 60% to 65%) in the percentage of construction debris that must be recycled. The ordinances became effective on January 1, 2022.

Additionally, the City introduced a new ordinance in 2021, Mandatory Organics Recycling and Edible Food Recovery (Ordinance 2022-15). Effective January 1, 2022, Ordinance No. 2022-15 not only requires all generators to recycle organics, but also mandates that some edible food generators donate any leftover food products to local organizations.

COMPLETE

ZW-1: Implement a Zero Waste Program

Education and Outreach

The City supports at-home management of organic waste through educational workshops—such as an annual Zero Waste Fair—and offers subsidies to purchase compost and worm bins. The City frequently partners with local organizations such as the Solana Center for Environmental Innovation, I Love a Clean San Diego, BCK Programs, and several Encinitas schools for various outreach events and programming.

Over the years, through periodic audits and observation, city staff has found that recyclable material can sometimes be misplaced in the trash and vice-versa. In 2021, to help improve and promote the City's blue bin recycling program, the City contracted the Solana Center to create a how-to video and resource packet for multi-family home property managers to share with their residents. The goal of this initiative was to improve residents' recycling habits and achieve a better understanding of how different types of materials should be disposed of.

Strategy 7: Carbon Sequestration

The Carbon Sequestration strategy in the City's Climate Action Plan (CAP) aims to facilitate the process of removing carbon dioxide (CO2), a greenhouse gas (GHG), from the atmosphere through natural or artificial means. This is referred to as carbon sequestration. Trees, algae, and other vegetation are referred to as "carbon sinks" because they naturally take in atmospheric CO2 through their respiration processes. An important way our community can improve its carbon sequestration potential is by increasing the number of trees planted and by maintaining a healthy urban tree canopy.

Implementation of the Carbon Sequestration strategy is estimated to reduce the City's GHG emissions by ***5 metric tons of carbon dioxide equivalent (MTCO2e) by 2020*** and ***66 MTCO2e by 2030***.

Urban Forestry

Managing Trees & the Urban Forest
Urban Forest Management Program

The City of Encinitas actively maintains a thriving urban forest of City-owned and maintained trees. City trees include trees in the public right of way, typically along streets and sidewalks, and trees within City parks. New trees are continually added to the City's urban forest and established City trees are maintained regularly. In addition to carbon sequestration, trees provide many benefits to our community such as improving water quality, reducing stormwater runoff, regulating temperature, reducing energy use in buildings, cleaning the air, enhancing property values, supporting human health, and providing wildlife habitat.

We recognize the City's urban forest as one of our greatest natural resources. City leaders and staff have made our trees a priority and they are dedicated to the continued planting, protection, and maintenance of Encinitas' urban forest. The departments of Public Works and Parks and Recreation have an established Urban Forest Management Program (UFMP) which closely follows the City's UFMP Administrative Manual and incorporates the City's Urban Tree Panting Program. In 2018, the City hired a City Arborist to support the implementation of the UFMP and oversee the care of the City's trees.

Urban Forestry

COMPLETE

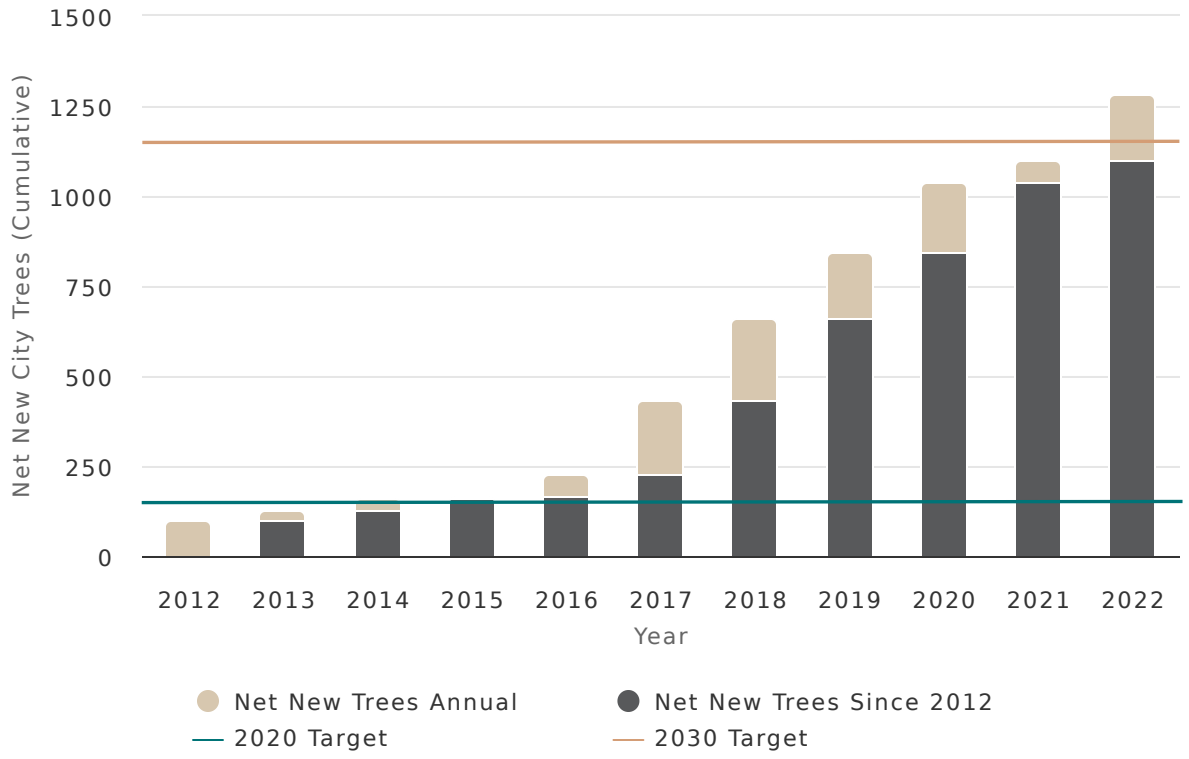
CS-1: Develop and Implement an Urban Tree Planting Program

Urban Tree Canopy

The City's Climate Action Plan (CAP) set a goal of planting 50 net new City trees annually between 2018 and 2020, which is a total of ***150 net new trees planted by 2020*** and planting 100 net new City trees annually between 2021 and 2030, for a total of ***1,150 net new trees planted by 2030***. As part of the 2020 CAP update, the City decided to increase the tree planting goal from 50 to 100 net new trees, doubling the City's efforts to grow our urban tree canopy.

To accomplish this, measure CS-1 directs the City to develop an Urban Tree Planting Program to promote increased carbon sequestration by trees within the community. The established program additionally includes standards to right-size trees and minimize pruning and irrigation needs. Between 2018 and 2020, the City planted well over 50 net new trees annually and exceeded the CAP's 2020 planting goal. The City is on track to meet the 2030 goal.

In 2022, the City planted a total of ***181 net new trees***. Between 2012 and 2022, the City planted a total of ***1,101 new trees***, averaging about ***100 new trees planted per year***. At the end of 2022, the City's urban forest included ***21,747 City trees*** in the public right of way and in City parks.



Section 4

Social Equity & Green Jobs

To successfully implement the Climate Action Plan (CAP), economic and equity factors must be taken into consideration. Low-income, minority, and other communities of concern are expected to be most impacted by future climate changes. Therefore, the City's CAP includes the consideration of socially equitable climate adaptation, equitable implementation of mitigation measures, and a focus on green jobs.

Section 4

Social Equity & Green Jobs

Social Equity
Equity & the CAP

The impacts of climate change will affect members of the community in different ways and to varying degrees. Addressing equity in the implementation of greenhouse gas (GHG) reducing measures ensures the just distribution of the benefits of climate adaption and mitigation efforts. Social equity is a broad subject that reaches beyond the capacity of the Climate Action Plan (CAP); therefore, the City continues to address equity in a holistic manner through the City's General Plan and across multiple departments. The following section summarizes the City's progress on addressing social equity through various well-established programs, in addition to new programs and initiatives.

Social Equity
Equitable Energy

In 2019, City Council authorized the formation of a Community Choice Energy program, called San Diego Community Power (SDCP) along with four other member cities: San Diego, Chula Vista, Imperial Beach, and La Mesa. The agency offers advantages over the incumbent utility, including less carbon intensive energy procured for customers over time at competitive prices and oversight by local jurisdictions instead of private shareholders. SDCP also has the option to reinvest profits into expanding carbon-free service options and customer programs.

In 2020, SDCP established a Community Advisory Committee (CAC) to advise the SDCP Board of Directors. Committee members include representatives from SDCP's five member cities and its diverse citizenry. The CAC's Fiscal Year 2021-22 work plan included the following focus areas which promote social equity: prioritization of equitable outcomes, development of an equitable and inclusive workforce policy, and providing SDCP Board with input on community outreach as it relates to electricity rates for disadvantaged communities and community solar. In 2022, SDCP initiated the completion of a Community Power Plan (CPP) that will guide the selection, development, and investment of local customer programs based on community needs and gaps in program offerings. The CPP will support energy efficiency and decarbonization programs, develop more local renewable energy sources in and near San Diego County, and invest in innovative, clean technologies and energy-related job training.

Section 4

Social Equity & Green Jobs

Equitable Housing
Housing Choice Voucher Program & Community Development Block Grants

The City continues to address equity through existing housing programs and planning for future housing. Ongoing programs include the City's Housing Choice Voucher Program (Section 8 rental assistance) and Community Development Block Grant Program (CDBG). Since 1995 the City of Encinitas Housing Authority (EHA) has operated a Section 8 Rental Assistance Program. The Section 8 Program offers financial rental assistance to low-income Encinitas households through a voucher-based program. The program is very popular with an ongoing wait list. Additionally, the City has managed a CDBG program since 2011. The CDBG program facilitates the administration of federal funding for housing related projects to create a suitable living environment, to provide decent housing, or to create economic opportunities for low-to-moderate-income households and communities.

Equitable Housing
Housing Element

The City's Housing Element identifies existing and projected housing needs in order to preserve, improve and develop housing for all economic segments of the community, in addition to demonstrating how the City will accommodate its fair share of regional housing.

In 2021, the City initiated a review of the barriers to racial and ethnic equity in the City as part of its 6th Cycle Housing Element Program 3H, which calls for an equity study of any potential discriminatory or inequitable, housing-related policies or practices. The study focused on examining existing policies and practices employed by the City and private actors in Encinitas' housing market, such as land-use policies, and lending and rental practices. The study conducted stakeholder engagement, city and regional data analysis, and community forums for residents and local businesses to engage in conversations about equity. The study's findings will compare national best practices and emerging research to address any issues found. The study's recommendations will provide a guiding framework for the City of Encinitas to consider in addressing the drivers of racial and ethnic inequality in housing. The study is anticipated to be complete in late 2023.

Section 4

Social Equity & Green Jobs

Green Jobs

Economic Development & Green Jobs

The City fosters green jobs in our local community and around the region through the implementation of the Climate Action Plan (CAP) and through the implementation of other various programs and partnerships.

Development and completion of the various CAP measures will create a need for more green jobs in Encinitas. For example, with the new building ordinances in place, establishing requirements for energy efficiency and renewable energy, new workers will be needed in the development and construction industry who have technical knowledge and skills in solar photovoltaic systems, electric vehicles, and energy efficiency. Similarly, the City's Water Efficient Landscape Regulations (EMC 23.26) and the water districts' on-going water conservation programs foster a need of businesses specialized in green landscape design and installation.

The City's Economic Development program directly supports the growth of green jobs through targeted workshops, trainings, and support to the City's four economic development organizations: Cardiff 101, Encinitas 101, Leucadia 101, and the Encinitas Chamber of Commerce. These organizations are the heart of the City's business community and are encouraged to participate in implementation of the CAP. The City encourages organizations and businesses that have sustainable business models and practice and promote sustainable habits.

Many of the City's restaurants, non-profits, shops, service providers, and lodging locations are leading by example, setting green standards, and paving the way for others in Encinitas to do the same.

Section 4

Social Equity & Green Jobs

Green Jobs
San Diego Community Power

Through its procurement of renewable energy, San Diego Community Power (SDCP) is committed to supporting local green jobs and building San Diego County's green economy. The agency works closely with clean energy generators to provide its member communities clean energy. The Jacumba Valley Ranch (JVR) Energy Park—located in southeastern San Diego County—is a solar and storage facility commissioned by SDCP in 2021. Construction on the project began in early 2022 and created approximately 350 construction jobs, utilizing a Project Labor Agreement with local unions. As SDCP grows its energy portfolio, offering a greater proportion of renewable electricity to customers, more new renewable energy projects will be commissioned like JVR Energy Park. These projects will create local construction, maintenance, and management jobs in the clean technology sector.

Green Jobs
Encinitas BCycle

In 2021, the City entered into an agreement with BCycle—one of the largest and longest standing bike share companies in the United States—to manage a bikeshare program for the City of Encinitas. The pilot program officially launched January 2022 with 131 docking stations and 67 electric bikes available for public use. Throughout 2022, there were 3,215 unique riders contributing to two million calories burned.

The BCycle bikeshare directly added several green jobs to the region and promotes affordable alternative transportation, both of which are goals outlined in the City's CAP. A BCycle bike may be rented for as little as $7 for a half hour. Passes may also be purchased on a monthly or annual basis for a cost of $30 or $150, respectively. After a successful first pilot year in 2022, the City and BCycle agreed to extended the license agreement through the end of 2023. With the extension of the agreement BCycle will expand ridership and outreach and plans to develop a program to enable low-income community members to rent BCycle bikes at no cost.

Section 5

Climate Resilience & Coastal Adaptation

With the Pacific Ocean as our backyard, it is paramount that the City continues to prioritize projects and policies that promote coastal resilience and adaptation. The City recognizes the importance of protecting our six miles of coastline. The City actively manages our coastline in a way that supports the community's active coastal lifestyle and works to preserve and protect the native plants and animals that rely on our coastal resources.

Section 5

Climate Resilience & Coastal Adaptation

Resilience & Adaptation

Coastal Storm Damage Reduction Project

The City is part of a collaborative coastal storm damage reduction project with the U.S. Army Corps of Engineers and the City of Solana Beach (known as the San Diego County, CA Project). The project was approved in 2015 with the Project Partnership Agreement and lease approved and signed in 2023. The goal of the project is to reduce storm and sea level rise-related coastal damage and erosion by adding 340,000 cubic yards of compatible dredged sand material in the initial construction along 7,800 feet of coastline between Swami's and Beacon's Beach. The project has a 50-year life cycle and will add additional nourishments in Encinitas (consisting of 220,000 cubic yards) every five years and in Solana Beach (consisting of 290,000 cubic yards) ever 10 years. In 2022, the project's pre-construction, engineering, and design phases were initiated and are expected to be completed in early 2023. Monitoring began in the fall of 2022 to set baseline conditions of the shoreline including supratidal, intertidal, and shallow subtidal habitat. The monitoring process includes seabed morphology, water quality, benthic habitat quality, rocky reef, surfgrass, and surf site (waves). Funding is comprised of local, state, and federal sources.

Climate Resilience & Coastal Adaptation

Resilience & Adaptation

Swami's State Marine Conservation Area and Marine Monitoring

Encinitas is home to the Swami's State Marine Conservation Area (SMCA), a state marine protected area (MPA) that spans from approximately Moonlight State Beach to South Cardiff State Beach shoreline mean high tide lines and three-nautical miles of ocean westward from the shoreline (approximately 12.71 square miles of conservation area). The Swami's SMCA was named after the world-famous surf spot "Swami's" and was established in 2012. The goal of this SMCA is to protect the sandy seafloor, rocky reef, kelp forest, coastal marsh and surfgrass habitat found here. These habitats are used by a variety of marine species which interact with the adjacent ocean and lagoon. The effects of establishing the preserve are currently being evaluated by the California Department of Fish and Wildlife through the 2022 Decadal Management Review. It is unlawful to injure, damage, take, or possess any living, geological, or cultural marine resource for commercial and/or recreational purposes within the SMCA. The only allowable forms of fishing in the SMCA are recreational fishing (hook and line) from shore and spearfishing for white seabass and pelagic finfish. Fishing from boats is prohibited. The prevalence of healthy reefs in the Swami's SMCA are ideal for recreation but are unfortunately also a draw for poachers. To advance its priority of environmental stewardship, the City installed a marine monitoring (M2) radar in November 2020 on top of the Marine Safety Center at Moonlight State Beach in partnership with the designers of the radar program, Protected Seas, and WILDCOAST, an international environmental non-profit organization. M2 is a low-powered, high frequency marine radar coupled with specially designed software to track boat activity and illegal fishing in nearshore waters. The M2 monitoring is ongoing and has provided data that is critical to both management and enforcement of fishing restrictions in the Swami's SMCA.

Climate Resilience & Coastal Adaptation

Resilience & Adaptation

Cardiff State Beach Living Shoreline Project

The Cardiff State Beach Living Shoreline Project, substantially completed in 2019, created a coastal dune with repurposed buried rock revetment and cobblestone and 30,000 cubic yards of sand dredged from the San Elijo Lagoon inlet and other acceptable sand sources. Native seeds and potted specimens of dune thriving plants were placed along the new shoreline on the easterly 30-foot width of the dune with the aid of volunteers managed by the Nature Collective. The Cardiff State Beach Living Shoreline Project is the first of its kind in Southern California to test coastal dunes as a natural-based solution to beach erosion and flood protection of a vulnerable coastal asset. This project has also created healthy and safe habitats for a variety of species, including the endangered western snowy plover. A 5-foot wide, decomposed granite footpath was installed with the project, just east of the dune system, supporting pedestrian activity from South Cardiff State Beach (Seaside) north and past nearby restaurants along South Coast Highway 101. Additional, upgrades included the reconfiguration of beach parking (including ADA parking and ADA upgrades), the installation of a Mobi-Mat for ADA use during peak seasons, trash and recycling bins, and educational signage.

In 2019, a monitoring program was developed to study the Shoreline Project and to inform other coastal communities considering such adaptive measures. Monitoring data is also used to inform the project's long-term maintenance and will continue through 2024. This program is a collaborative effort between the City, California State Parks, California State Coastal Conservancy, the Nature Collective, U.S. Fish and Wildlife, Surfrider Foundation, University of California, Los Angeles (UCLA), and the Scripps Institution of Oceanography. In March 2021, the City accepted a national award from the American Shore and Beach Preservation Association (ASBPA) for Best Restored Beach of 2020.

Climate Resilience & Coastal Adaptation

Resilience & Adaptation
Beacon's Coastal Bluff Restoration Project

In 2020, the Beacon's Coastal Bluff Restoration Project was designed. The project was, approved and permitted in early 2021.The primary objective of the project is to stabilize surface soils and reduce erosion by planting native vegetation via hydroseeding and potted plants. These measures are intended to protect the existing beach access trail, while also increasing coastal bluff habitat. The approximate 1.2-acre coastal bluff area largely contained non-native species or bare ground prior to the project. With the installation of adapted native species —such as Coast Sunflower, Yucca, and California Sagebrush—the coastal bluff provides enhanced habitat for coastal species, stabilizes the surface soil of the bluff, and beautifies the trail. The restoration program also includes a pilot project which uses washed up kelp to encourage natural dune formation. The first round of bluff restoration was officially completed in November 2021. The City's Parks and Recreation Department conducted a second round of planting and restoration in the fall of 2022 and will do so again in fall of 2023.

Resilience & Adaptation
Sand Compatibility and Opportunistic Use Program

The Sand Compatibility and Opportunistic Use Program, or SCOUP, facilitates the use of available sand from construction sites and other opportunistic sources, from both private and public development projects. SCOUP is part of a local sediment management plan intended to streamline beach nourishment projects. Beach nourishment is a process used to add additional beach compatible sand sediment to a beach or nearshore area. Once the sediment has been tested to be compatible with the receiver sites through the SCOUP protocol, it is used to repair existing beach storm damage, provide increased beach storm protection, develop new habitat, and enhance beach usage and recreation. The program includes stringent environmental regulations to ensure that the sand sources are compatible with receiver sites. The timing and location of sand placement are also strictly controlled to reduce any negative impacts on coastal habitats and recreation. As an example, in 2021, as part of the Build NCC (North Coast Corridor) project, the City, in collaboration with San Diego Association of Governments (SANDAG) and Caltrans, transported 70,000 cubic yards of beach-quality material from the San Elijo Lagoon to Encinitas beaches.. Over the course of four months, the material was dredged and piped or hauled by truck to Cardiff State Beach and Moonlight State Beach. The City has used beach nourishment for many years as a method of building coastal resilience and will continue to do so in the future.

Looking Ahead

With just six (6) of the twenty (20) CAP measures yet to be completed five (5) in progress and one (1) awaiting resources), City staff will continue working diligently to ensure that all CAP measures are accomplished and that greenhouse gas (GHG) reduction targets are achieved by 2030. The CAP Implementation Plan calls for measures to be completed within varying timelines depending on complexity and cost. Looking ahead, City staff will focus on executing the following activities:

- Continue to support San Diego Community Power in its effort to serve all Encinitans 100% renewable energy.
- Implement the City's Green Building regulations in support of building electrification, decarbonization, and energy efficiency.
- Revamp the City's Green Building Incentive Program to be more accessible to residents with existing homes in the City of Encinitas.
- Adopt and implement the Electric Vehicle Charging Station Master Plan to increase the amount of publicly available charging stations within the City of Encinitas.
- Become a part of the San Diego Regional Green Business Network, facilitated by the San Diego Green Business Council, to certify and promote local green businesses.
- Continue to install bike and pedestrian facilities to enhance mobility throughout the community.
- Continue to support the City's bikeshare program operated by BCycle.
- Continue to maintain a healthy urban tree canopy and plant new trees in the City's urban forest.
- Support City projects relevant to the CAP including Leucadia Streetscape and coastal resilience projects like the Coastal Storm Damage Reduction Project.

Conclusion

The 2022 Climate Action Plan (CAP) Annual Monitoring Report (Annual Report) summarizes the City of Encinitas' progress toward overall greenhouse gas (GHG) reduction targets and evaluates the implementation status of each of the 20 measures established in the CAP. This Annual Report covers the City's efforts since implementation began in early 2018, and includes data tracked through the end of 2022.

Of the 20 CAP Measures, 14 have been completed, 5 are in progress, and 1 is awaiting resources. Moving forward, the City will produce reports annually, presenting the most recent data. Staff will continue to work and coordinate with a variety of consultants, San Diego Association of Governments (SANDAG), and other regional and business partners to further CAP implementation and continue to lower GHG emissions. The City's CAP set a GHG emissions reduction target of 13% below 2012 levels by 2020. In 2020, emissions went down by 14.6% from the 2012 baseline level. This demonstrates that the City achieved its 2020 target, exceeding it by 1.6%! The City is on-track with CAP implementation and expects to meet the next GHG emissions reduction target of 44% below 2012 levels by 2030.

In Encinitas, some of the implications of climate change are already evident and will increasingly become a challenge that the community must address. Encinitas faces rising sea levels, increased drought risk, increased annual temperatures, and increased vulnerability of bluffs and beaches, in addition to other changes that pose a threat to the coast and community we call home. Apart from mitigating GHG emissions, the City also strives to strengthen the community's resiliency against climate change. The climate challenge poses a unique opportunity to develop a more sustainable, healthy, and equitable Encinitas community driven by the strategies outlined in the CAP. The City—with support from community members, local businesses, and regional partners—will continue to pursue emissions reductions goals and improve the well-being of Encinitas residents now and into the future.