

# CONTRA COSTA COUNTY CLIMATE ACTION PLAN, 2020 PROGRESS REPORT

December 2020

For more information, contact:  
Jody London  
Sustainability Coordinator  
Contra Costa County  
[Jody.London@dcd.cccounty.us](mailto:Jody.London@dcd.cccounty.us)  
925-674-7871

## Table of Contents

Introduction .....	1
Energy Efficiency .....	1
Measures EE 1: Energy-Efficient Retrofits – Residential Buildings, EE 2: Energy-Efficient Retrofits – Nonresidential Buildings and EE 3: Energy Conservation Awareness .....	1
Measure EE 4: Urban Forestry and Paving and Roofing Materials .....	4
Renewable Energy .....	5
Measure RE 1: Alternative Energy Installations .....	5
Measure RE 2: Alternative Energy Facilities .....	5
Measure RE 3: Alternative Energy Financing .....	5
Land Use and Transportation .....	7
Measure LUT 1: Mobility and Land Uses .....	7
Measure LUT 2: Alternative-Fuel Infrastructure .....	8
Measure LUT 4: Vehicle Miles Traveled Reduction .....	9
Solid Waste .....	9
Measure W 1: Waste Reduction and Recycling .....	9
Water Conservation .....	9
Measure WE 1: Water Conservation .....	9

# Contra Costa County Sustainability Commission

## 2020 *Climate Action Plan* Progress Report

### Introduction

The 2020 Climate Action Plan (CAP) progress report provides information on the actions Contra Costa County has taken in the past year to advance the goals of the County’s 2015 Climate Action Plan. Due to the events that have transpired over the course of 2020, the data that is enclosed in this report reflects the unusual year.

Information on County operations is included in the attached progress report from the County’s Public Works Department.

### Energy Efficiency

Measures EE 1: Energy-Efficient Retrofits – Residential Buildings, EE 2: Energy-Efficient Retrofits – Nonresidential Buildings and EE 3: Energy Conservation Awareness

#### Overview of GHG Emissions Targets as Established by 2015 CAP

<b>GHG Emissions Reductions Target by 2035 for All EE Measures<sup>1</sup></b>	<b>GHG Emissions Reductions Expected by 2020 for All EE Measures</b>	<b>Percentage of 2020 GHG Emissions Reduction Target Achieved to Date</b>
14,000 MTCO <sub>2</sub> e <sup>2</sup>	7,510 MTCO <sub>2</sub> e	88%

#### Breakdown of 2020 GHG Emission Totals and CAP Targets for Measures EE 1, EE 2, and EE 3

	<b>Measure</b>	<b>2020 GHG Reduction Target (MTCO<sub>2</sub>e)</b>	<b>Total GHG Emissions Reduction Completed by 2020<sup>3</sup> (MTCO<sub>2</sub>e)</b>
EE 1	Provide opportunities for residential buildings to become more energy efficient.	2,140	937

<sup>1</sup> Refers to Measures EE 1, EE 2, EE 3, EE 4, EE 5, and EE 6

<sup>2</sup> MTCO<sub>2</sub>e<sup>2</sup> = carbon dioxide equivalent

<sup>3</sup> Percentages are calculated using the 2015 Contra Costa CAP Monitoring Tool provided by Michael Baker International. The percentages included remain tentative until additional requested data is provided.

	<b>Measure</b>	<b>2020 GHG Reduction Target (MTCO2e)</b>	<b>Total GHG Emissions Reduction Completed by 2020<sup>3</sup> (MTCO2e)</b>
EE 2	Provide opportunities for nonresidential buildings to become more energy efficient.	4,630	332
EE 3	Provide education and outreach highlighting the benefits of energy conservation	430	5,358

The CAP calls for continued expansion of single-family and multi-family participation in established energy efficiency rebate programs to retrofit 3,000 single-family and 700 multi-family homes. In 2019 and 2020, under the BayREN Home+ and Multifamily programs, 57 single-family and 14 multi-family units were retrofitted.

All estimated emission reductions are dependent on multiple data sets from various energy efficiency programs, such as the Bay Area Regional Energy Network (BayREN) program, County Weatherization program, PG&E Commercial Business program, and Property Assessed Clean Energy (PACE) projects. County staff is working with PG&E and the California Public Utilities Commission (CPUC) to obtain outstanding data for Commercial customers that is not yet available. There are also additional PACE projects for which data is still being collected. Therefore, GHG emissions reductions (expected percent to be completed by 2020) may be higher than is estimated in this report.

For Measure EE 1, there was a significant drop in energy efficiency home retrofits completed for calendar year 2020, likely due to COVID-19. Actual expected GHG reductions under Measure EE 3 are much higher than originally expected/allocated under the current CAP, due to extensive community outreach conducted by County staff to educate residents on the benefits of energy conservation.

A geographic breakdown of where projects qualifying for energy efficiency rebate programs were carried out in the unincorporated County is provided below. The data on the single-family energy efficiency retrofits completed in unincorporated Contra Costa County for 2020 was last updated on November 4, 2020.

<b>2019 Energy Efficiency Single-Family Homes Completed - Unincorporated</b>			
<b>Community</b>	<b># Homes Retrofitted</b>	<b>Total kWh Savings</b>	<b>Total Therms Savings</b>
<i>Alamo</i>	49	2698.3	985.18
<i>Bay Point</i>	2	0	47.38
<i>Byron</i>	9	672.44	109.88
<i>Crockett</i>	9	542.47	49.78
<i>Discovery Bay</i>	3	203	79.53
<i>El Sobrante</i>	21	843.91	749.99
<i>Kensington</i>	33	824.56	719.38
<i>Rodeo</i>	20	491.37	489.96
<i>PACE Projects - HERO</i>	15	not available	not available
<b>Totals</b>	<b>161</b>	<b>6276.05</b>	<b>3231.08</b>

<b>2020 Energy Efficiency Single-Family Homes Completed -- Unincorporated</b>			
<b>Community</b>	<b># Homes Retrofitted</b>	<b>Total kWh Savings</b>	<b>Total Therms Savings</b>
<i>Alamo</i>	25	2479.13	493.46
<i>Diablo</i>	1	192.3	24.49
<i>El Sobrante</i>	2	1888.97	49.94
<i>Rodeo</i>	3	116.42	116.64
<i>PACE Projects - HERO</i>	11	not available	not available
<b>Totals thru Nov 2020</b>	<b>42</b>	<b>4676.82</b>	<b>684.53</b>

Below is the data for multi-family projects in the unincorporated County in 2019 and 2020; to-date there are no multi-family projects in the unincorporated County in 2020. Data on the specific communities in which multi-family projects were implemented is not available; PG&E claims that providing this information violates consumer privacy rules.

<b>Multi-Family Projects completed</b>			
	<b>Units</b>	<b>kWh Savings</b>	<b>Therms Savings</b>
2019- Unincorporated	14	5951	492.9
2020- Unincorporated	0	0	0
<b>Totals thru Nov 2020</b>	<b>14</b>	<b>5951</b>	<b>492.9</b>

#### Measure EE 4: Urban Forestry and Paving and Roofing Materials

The CAP sets a goal to plant 500 new shade trees by 2018. The exact number of trees planted and removed is not currently tracked by the County, so it is not possible to conclude if this measure has been met. However, actions being developed this year by County staff will make it easier to maintain the number of trees in the County.

The County Off-Street Parking Ordinance (Chapter 82-16) contains provisions for parking lots of a certain size to provide landscaping and shade trees. The County's Tree Ordinance is in the process of being updated where an in-lieu tree planting fee program will be considered. County staff is exploring other models that allow in-lieu fees to be paid when replanting is infeasible. Said fees would be used to plant trees in other areas of the County. Factors for determining how plantings from in-lieu fees are designated are also being developed.

The CAP aimed to have 1,790 existing homes and 9 existing businesses complete cool roof retrofits by 2018. From January 1, 2020 to November 30, 2020, 600 homes and 15 businesses have completed cool roof retrofits. The target for cool roof installations has been well-exceeded.

##### Residential Cool Roof Installations

<b>Year</b>	<b># Cool Roofs Installed</b>
<b>2010</b>	54
<b>2011</b>	46
<b>2012</b>	31
<b>2013</b>	10
<b>2014</b>	44
<b>2015</b>	73
<b>2016</b>	226
<b>2017</b>	335
<b>2018</b>	482
<b>2019</b>	527
<b>2020</b>	600
<b>Total</b>	2,328

##### Commercial Cool Roof Installations

<b>Year</b>	<b># Cool Roofs Installed</b>
<b>2014</b>	2
<b>2016</b>	3
<b>2017</b>	2
<b>2018</b>	8
<b>2019</b>	15
<b>2020</b>	15
<b>Total</b>	45

## Renewable Energy

### Measure RE 1: Alternative Energy Installations

The CAP sets a goal of 50 new homes, 2,500 existing homes, 10 new businesses, and 60 existing businesses with solar arrays by 2020. This target has been far exceeded with over 5,000 residential PV permits issued in the past three years alone. From January 1, 2020 to November 30, 2020, 966 residences and 4 businesses in the unincorporated County installed solar PV.

In 2015, the County implemented the online permitting tool. Because of COVID-19, the majority of applicants this year took advantage of this service with 83% of permits being issued online.

Year	Total # Residential PV Permits	# Residential PV E-Permits
2018	1482	414
2019	1759	323
2020	1829	1525

### Measure RE 2: Alternative Energy Facilities

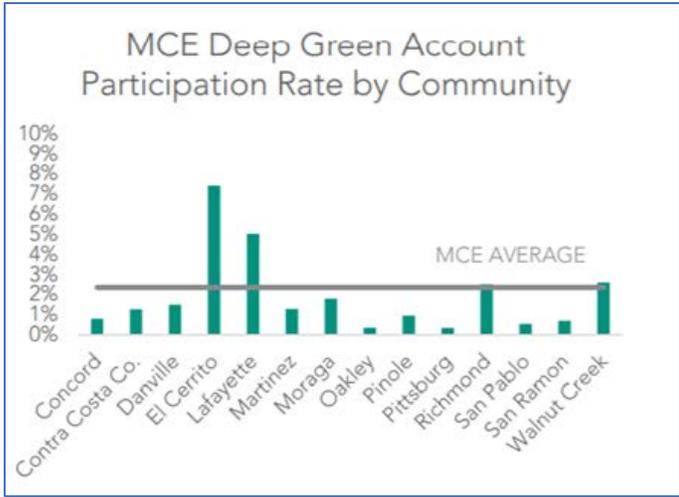
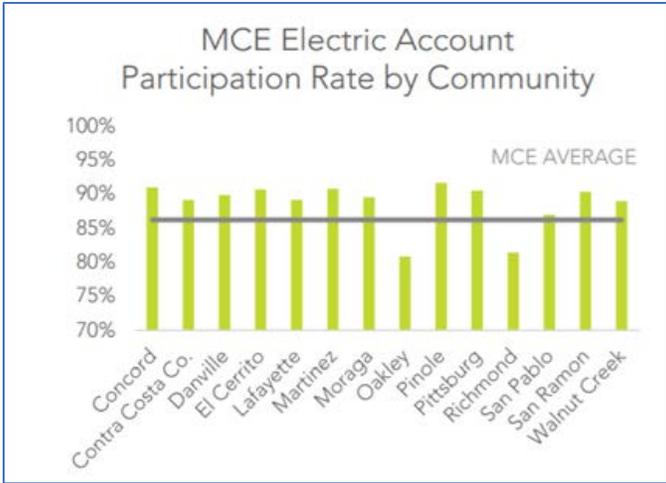
The CAP sets a goal to install 1 MW of solar on public facilities in the unincorporated area by 2018. As noted in past CAP progress reports, this target has long been surpassed. The County continues to increase its solar photovoltaic (PV) capacity with installation at various sites around the county.

Currently, the County has 22 PV systems that have a total capacity of 4.5 MW and produce 6.5 million kilowatt-hours per year (6,500,000 kWh/year). In 2019, Contra Costa County signed a Power Purchase Agreement for the installation of an additional nine solar PV systems; three of these solar PV systems include energy storage. The first phase of this new Distributed Energy Resources project will be completed by the end of 2020 and the second phase by mid-year 2021. When complete, the County will have added that will produce an additional 6,000,000 kWh/year. Over the 25-year contractual period the County is estimated to save \$16,000,000.

### Measure RE 3: Alternative Energy Financing

Measure RE 3 is supportive and does not have a quantitative target. The CAP identifies community choice aggregation as a strategy for increasing the amount of renewable energy consumed in the County.

Unincorporated Contra Costa has reduced a total of 3,554 MTCO<sub>2</sub>e through its participation with MCE since 2018. Unincorporated County has an 89.1% participation rate with a Deep Green participation rate of 1.3% as of October 1, 2020.



Community	Joined MCE	MT CO <sub>2</sub> Reduced <sup>1</sup>	Participation Rate	Deep Green Rate	Deep Green <sup>2</sup>
Concord	2018	2,474	91%	0.8%	N/A
Contra Costa	2018	3,554	89.1%	1.3%	2021
Danville	2018	846	89.9%	1.5%	2019
El Cerrito	2015	4,605	90.7%	7.4%	2017
Lafayette	2016	4,412	89.2%	5%	2017
Martinez	2018	730	90.8%	1.3%	2019
Moraga	2018	230	89.6%	1.8%	N/A
Oakley	2018	560	80.9%	0.4%	N/A
Pinole	2018	307	91.7%	1%	N/A
Pittsburg	2018	2,032	90.5%	0.4%	N/A
Richmond	2013	64,504	81.4%	2.5%	2017
San Pablo	2015	4,536	87%	0.6%	2016
San Ramon	2018	1,458	90.3%	0.7%	N/A
Walnut Creek	2016	15,774	89%	2.6%	2018

**Municipal Accounts Opted Up to Deep Green (As of October 1, 2020)**



The CAP also calls for improving participation in programs that help financial investments in renewable energy and energy storage systems which includes programs such as Property Assessed Clean Energy (PACE) and BayREN. PACE in particular allows property owners to voluntarily join an assessment district and borrow money for the purpose of making energy or water efficiency improvements to their project.

In 2019, the Sustainability Commission suggested the County identify financing mechanisms that would be more accessible to low- and medium-income homeowners. This fall staff submitted a proposal to the UC Berkeley Goldman School of Public Policy to perform this research. Starting in January, this topic will be the capstone project for a Goldman School student, to be completed by May 2021.

## Land Use and Transportation

### Measure LUT 1: Mobility and Land Uses

The CAP calls for 33,630 countywide bike trips per weekday on average by 2020. This is not a metric that staff has explicitly tracked due to the cost of data collection and the inherent limitations of this data across the unincorporated County. The following studies and programs directed by County staff facilitate easier access to transportation alternatives and improved safety conditions, which both encourage non-vehicular mobility.

## Bike and Pedestrian Access

In June 2020, the Board of Supervisors accepted the Iron Horse Corridor Active Transportation Study, which identifies improvements throughout the 22-mile Corridor for increasing safety, access, and the trail user experience. The County collaborated with all Corridor cities, the Contra Costa Transportation Authority, East Bay Park District and local communities and trail users to develop the Study.

County staff is currently developing the Marsh Creek Corridor Multi-Use Trail Feasibility Study which explores the concept of a new multi-use trail within the 12+ mile corridor from Clayton to the Round Valley Regional Preserve (near Brentwood). The purpose of the path would be to provide a safe, useful and enjoyable transportation corridor for various forms of non-motorized travel, including pedestrian, equestrian and bicycle users (including serious bicycle enthusiasts).

## Vision Zero

The County's Vision Zero Program, which seeks to reduce fatalities and significant injuries on unincorporated roadways is currently in development. The Program will result in engineering, education and enforcement strategies that will be implemented to help reduce roadway incidents and increase user safety.

## Active Transportation Plan

The Contra Costa County Active Transportation Action Plan ("ATP") will create a detailed inventory of the County's roadways and identify opportunities to build active transportation facilities with an emphasis on projects that can be installed quickly through re-striping and repaving. Staff will create a three-tiered priority list of projects based on ease of implementation, location in disadvantaged communities, and overlap with a travel demand model. Staff will conduct extensive public outreach in each of the 13 unincorporated communities and develop an interactive web map tool for ongoing outreach and evaluation.

With more detailed data on roadway opportunities and constraints, staff can expand upon CCTA's 2018 Countywide Bicycle and Pedestrian Plan and support concurrent planning efforts such as the County's Vision Zero program, which will in turn support regional and state planning goals. The County was awarded a \$380,000 Caltrans Sustainable Communities Grant to develop the ATP.

## Measure LUT 2: Alternative-Fuel Infrastructure

The CAP targets specific outcomes regarding electric vehicle (EV) charging station use, including 14,220 vehicle miles traveled (VMT) per EV by 2020.

MCE has contributed to the network of EV charging stations distributed throughout the county through its rebate program. Through this rebate program, as of October 4, 2020, MCE has installed 317 charging stations within the county.

The number of EV charging stations around the county has grown tremendously thanks to the Contra Costa Transportation Authority's (CCTA) work on the Electric Vehicle Readiness Blueprint completed in July 2019 and the Board of Supervisors' adoption of a streamlined permitting process for electric vehicle chargers on December 17, 2019 (Ordinance No. 2019-39). These two efforts contributed to the 1,325 charging stations currently distributed throughout the county.

## Measure LUT 4: Vehicle Miles Traveled Reduction

This measure establishes targets for BART and bus trips taken by residents of the unincorporated County, and decreases in vehicle miles travelled in high occupancy vehicle lanes to be met by 2035. For reasons similar to bike trip data, this is not something staff tracks. Such an effort would require significant coordination with BART, bus operators, and other agencies to measure.

In June 2020, the Board of Supervisors adopted new guidelines for evaluating transportation impacts under the California Environmental Quality Act (CEQA). Specifically, the new guidelines implemented Senate Bill (SB) 743 which shifted the transportation analysis metric for measuring environmental impacts from congestion and delay-based metrics (e.g. Level of Service or LOS) to Vehicle Miles Traveled (VMT). The guidelines introduced new thresholds of significance for land use and transportation projects. Transportation Demand Management (TDM) strategies are typically required mitigation where necessary. County staff is also working with the Contra Costa Transportation Authority on development of a regional VMT mitigation program.

## Solid Waste

### Measure W 1: Waste Reduction and Recycling

Since 2007, the State measures jurisdictional waste reduction based on the amount disposed using a pounds of disposal Per Person per Day (PPD) metric. In 2019, the unincorporated County area disposal was 2.46 PPD, which is a reduction of 0.74 PPD from the 2007 baseline of 3.2 PPD, equivalent to an overall diversion rate of 77%. The CAP set a goal to achieve a local waste diversion rate of 75% and reduce tons of waste by 90,850, so the goal was achieved.

## Water Conservation

### Measure WE 1: Water Conservation

Contra Costa County is served by a number of water purveyors. The majority of residents receive service from the East Bay Municipal Utility District (EBMUD), which serves the southern and western areas, and the Contra Costa Water District, which serves central and eastern areas.

The CAP aims to reduce potable water use by 20% from 2013 water use by 2020. The East Bay Municipal Utility District has provided high-level data on water use in the unincorporated County. As of 2019, unincorporated county's water use was 3,681,827 CCF<sup>4</sup> for non-residential use and 5,394,742 CCF for residential use. Total potable water use for the county was 9,076,569 CCF, or a 7.86% increase in water

---

<sup>4</sup> Each CCF is 748 gallons of water

consumption from 2015 levels. In future reports, staff will try to include more information on the amount of rainfall in the year being measured, at the suggestion of the Sustainability Commission.

See table below.

Total CCF	Years					Grand Total
	2015	2016	2017	2018	2019	
Unincorporated Area						
Non-Residential	3,783,241	3,432,147	3,489,074	3,683,351	3,681,827	18,069,640
Residential	4,631,907	4,787,355	5,350,131	5,488,289	5,394,742	25,652,424
Grand Total	8,415,148	8,219,502	8,839,205	9,171,640	9,076,569	43,722,064