

Reduction Strategy	Summary	Quantified (Y/N)	Year 2030 Estimated Reduction (MTCO2e/yr)			Year 2050 Estimated Reduction (MTCO2e/yr)		
			Existing	Future	Total	Existing	Future	Total
	Emissions Reductions Resulting from Implementation of Statewide RPS		1,559	70,878	72,437	3,095	162,501	165,596
TM-1	Bicycle and Pedestrian Infrastructure (Both on- and off-site)	Y		9,070	9,070		10,827	10,827
TM-2	Congestion Reduction (Applied as 25% of roadways & Intersections would have traffic calming)	Y		22,674	22,674		27,066	27,066
TM-3	Increased Use of Alternative Transportation (See TM-3a and TM-3b below)							
TM-3a	Expand Transit Service Coverage (Increase Transit network 50%)	Y		2,265	2,265		2,381	2,381
TM-3b	Increase Frequency of Transit Service (Reduce Headways by 25%)	Y		572	572		361	361
TM-4	Reduce Parking Supply (Reduce Parking Supply by 10% based on ITE average)	Y		22,944	22,944		27,066	27,066
TM-5	Optimize City Fleet	Y		219	219		605	605
TM-6	Electric Vehicle Charging Infrastructure	Y	0	8.5	8	0	17.0	17
LU-1	Encourage Reuse (Assumed to be captured in Sustainable Growth)	(See LU-3)						
LU-2	Comply with State Affordable Housing Requirements (Per Housing Element incorporate 22.6% of housing below market rate)	Y	0	4,370	4,370	0	4,894	4,894
LU-3	Sustainable Growth (Increased land use diversity)	Y	0	45,619	45,619	0	54,133	54,133
LU-4	Urban Tree Program (No quantification method found)	N						
LU-5	Safe Routes to School	Y	91	707	798	91	1,156	1,247
EM-1	Renewable Energy Production Plan (Existing Quantified, future reductions captured by EM-3)	Y	179	0	179	179	0	179
EM-2	Energy Efficiency Improvements for City Buildings	Y	25		25	25		25

EM-3	Renewable Energy Requirement for Private Development	Y	0	13,647	13,647	0	0	0
EM-4	Participate in Assembly Bill 811 Energy Programs	N						
EM-5	Enforce CALGreen	Y	0	6,366	6,366	0	9,786	9,786
EM-6	Energy Efficient Design	Y	0	4,703	4,703	0	64	64
EM-7	Energy Efficient Design of City Structures	Y	0	25	25	0	234	234
EM-8	Improve Lighting Efficiency	Y	33	0	33	33	0	33
WM-1	Communitywide Water Use Efficiency (Captured under EM-5)							
WM-2	Water Efficient Landscaping	Y	0	224	224	0	4	4
WM-3a	Sustainable Wastewater Service (Use reclaimed water 10%)	Y		315	315		1	1
WM-3b	Sustainable Wastewater Service (Use grey water 10%)	Y		112	112		2	2
WM-3C	Methane Capture and Co-generation at Wastewater Treatment Plant				0			0
SWM-1	Solid Waste Reduction (Modeled as 25% for 2030 and 50% for 2050)	Y		5,111	5,111		16,898	16,898
SWM-2	See Measure SWM-1	Y						
Total Emissions Reductions from Reduction Strategies:			1,887	209,828	211,715	3,423	317,994	321,417
Emissions Reduction Required to Meet Target:					450,391			850,811
Difference:					238,676			529,394

TM-5 Calculations: Optimize City Fleet

Fleet Mix	# Vehicles	City Population	Emissions Factor (MTCO₂/yr-vehicle)	Total Emissions (MTCO₂e/yr)
Existing Fleet				
Combustion	15	3,519	3.20	48.00
2030 Fleet				
EV	68		0.00	0.00
Combustion	83		3.20	267.14
Total	152	39,169		267.14
			Reduction:	219.14
2050 Fleet				
EV	189		0.00	0.00
Combustion	68		3.20	219.14
Total	258	63,968		219.14
			Reduction:	605.40

TM-6 Calculations: Electric Vehicle Charging Infrastructure

# EV Stations Added	Annual Emissions Reduction/Station (MTCO₂/yr)*	Total Annual Reductions (MTCO₂/yr)
5	1.69702	8.4851
10	1.69702	16.9702

*Per Chico CAP (Appendix D-1)

Year 2030

	MWh	CO2lbs/MWh	Emissions
2010 Quantified Electricity Emissions			
Residential Energy	6.573034	445	2925
Municipal Energy	0.382022	445	170
Future Emissions with RPS Emission Factors			
Residential Energy	6.573034	220.9	1451.983146
Municipal Energy	0.382022	220.9	84.38876404

Emission Reduction Due to RPS	
Residential Energy	1473.016854
Municipal Energy	85.61123596

Year 2050

	MWh	O2lbs/MWh	Emissions
2010 Quantified Electricity Emissions			
Residential Energy	6.573034	445	2925
Municipal Energy	0.382022	445	170
Future Emissions with RPS Emission Factors			
Residential Energy	6.573034	0	0
Municipal Energy	0.382022	0	0

Emission Reduction Due to RPS	
Residential Energy	2925
Municipal Energy	170

Reduction in Municipal Energy Consumption due to energy efficiency improvements (30% improvement)	0.267416	220.9	59.07213483
Emission Reduction Due to Municipal Energy Efficiency Upgrades	25.31663		

Reduction in Municipal Energy Consumption due to energy efficiency improvements (30% improvement)	0.267416	0	0
Emission Reduction Due to Municipal Energy Efficiency Upgrades	0		