

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	<b>72,437</b>	3,095	162,501	<b>165,596</b>
TM-1	Bicycle and Pedestrian Infrastructure (Both on- and off-site)	Y		9,070	<b>9,070</b>		10,827	<b>10,827</b>
TM-2	Congestion Reduction (Applied as 25% of roadways & Intersections would have traffic calming)	Y		22,674	<b>22,674</b>		27,066	<b>27,066</b>
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	<b>2,265</b>		2,381	<b>2,381</b>
TM-3b	Increase Frequency of Transit Service (Reduce Headways by 25%)	Y		572	<b>572</b>		361	<b>361</b>
TM-4	Reduce Parking Supply (Reduce Parking Supply by 10% based on ITE average)	Y		22,944	<b>22,944</b>		27,066	<b>27,066</b>
TM-5	Optimize City Fleet	Y		219	<b>219</b>		605	<b>605</b>
TM-6	Electric Vehicle Charging Infrastructure	Y	0	<b>8.5</b>	<b>8</b>	0	<b>17.0</b>	<b>17</b>
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	<b>4,370</b>	0	4,894	<b>4,894</b>
LU-3	Sustainable Growth (Increased land use diversity)	Y	0	45,619	<b>45,619</b>	0	54,133	<b>54,133</b>
LU-4	Urban Tree Program (No quantification method found)	N						
LU-5	Safe Routes to School	Y	91	707	<b>798</b>	91	1,156	<b>1,247</b>
EM-1	Renewable Energy Production Plan (Existing Quantified, future reductions captured by EM-3)	Y	179	0	<b>179</b>	179	0	<b>179</b>
EM-2	Energy Efficiency Improvements for City Buildings	Y	25		<b>25</b>	25		<b>25</b>

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

**TM-5 Calculations: Optimize City Fleet**

<b>Fleet Mix</b>	<b># Vehicles</b>	<b>City Population</b>	<b>Emissions Factor (MTCO<sub>2</sub>/yr-vehicle)</b>	<b>Total Emissions (MTCO<sub>2</sub>e/yr)</b>
<b>Existing Fleet</b>				
<b>Combustion</b>	15	3,519	3.20	48.00
<b>2030 Fleet</b>				
<b>EV</b>	68		0.00	0.00
<b>Combustion</b>	83		3.20	267.14
<b>Total</b>	152	39,169		267.14
			<b>Reduction:</b>	<b>219.14</b>
<b>2050 Fleet</b>				
<b>EV</b>	189		0.00	0.00
<b>Combustion</b>	68		3.20	219.14
<b>Total</b>	258	63,968		219.14
			<b>Reduction:</b>	<b>605.40</b>

### TM-6 Calculations: Electric Vehicle Charging Infrastructure

# EV Stations Added	Annual Emissions Reduction/Station (MTCO <sub>2</sub> /yr)*	Total Annual Reductions (MTCO <sub>2</sub> /yr)
5	1.69702	8.4851
10	1.69702	16.9702

\*Per Chico CAP (Appendix D-1)

Year 2030

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

<b>Emission Reduction Due to RPS</b>	
Residential Energy	1473.016854
Municipal Energy	85.61123596

Year 2050

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

<b>Emission Reduction Due to RPS</b>	
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		