



# Association of Monterey Bay Area Governments

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# AMBAG Territory



# Thomas Truskowski, City of Gonzales



# David Carlson, County of Santa Cruz

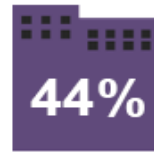


# Santa Cruz County Overall Energy Use

## Overall energy usage

This is the breakdown between **Non-Residential** and **Residential** energy usage in 2011 for Santa Cruz County.

Non-Residential



Residential

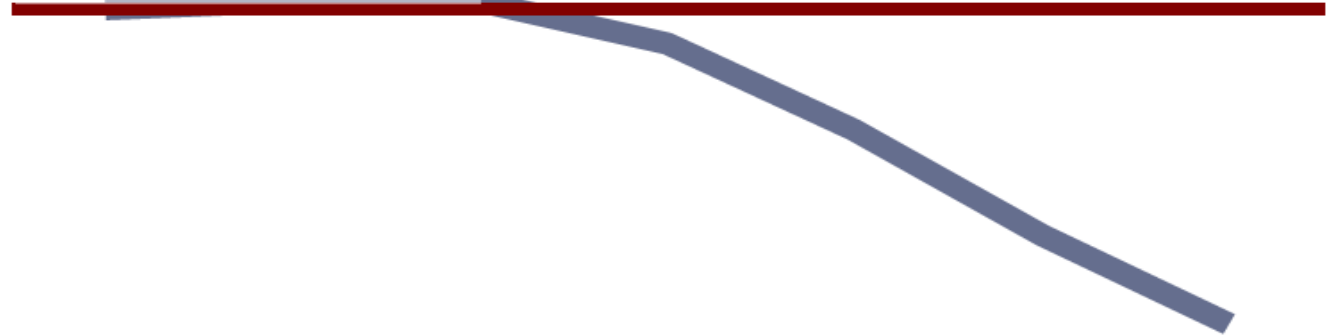


**10,344,497**

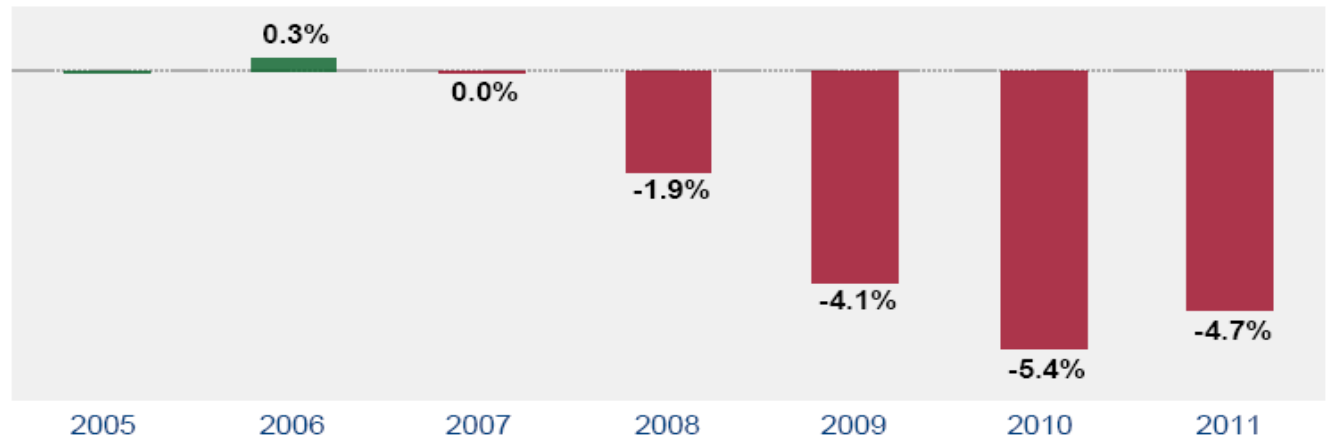
million British thermal units  
in 2011\*

Energy usage has  
Decreased by 15% since  
2005

2005 Baseline 12,170,255 MBtu



This is the Year over Year  
change in overall energy  
usage from the prior year



\*Consumption has been converted to British thermal units (Btu) to compare **electricity** and **natural gas** usage

# County of Santa Cruz

## Facility Energy Benchmarking

Table 1- Overall Building Performance Summary (Source: AMBAG Energy Watch)

	Year ending 4/2012
Total Number of Facilities	16
Total Floor Space (sq. ft.)	680,396
Total Annual Energy Use (kBtu)	135,746,970
Average Energy Use Intensity or EUI (kBtu/Sq. Ft.)	200
Total Annual Site Electric Use (kWh)	8,508,431
Total Annual Site Natural Gas Use (Therms)	370,432

Table 2- Poor Performing Facilities (Source: AMBAG Energy Watch)

Facility Name	Facility Address	Facility Floor Space	Site Electric Use (kWh)	Site Natural Gas Use (Therms)	Facility EUI (kBtu/Sq. Ft.)	Nat'l Median EUI (kBtu/Sq. Ft.)	% Difference
2750 Lode St- Sewer Plant	2750 Lode Street	12,900	843,064	5,065	754	164	379
100 Roundtree Ln - County Jail	100 Roundtree Ln	30,900	409,403	53,582	327	127	162
3650 Graham Hill Rd- Juvenile Hall/Probation	3650 Graham Hill Rd	34,535	380,282	56,482	288	127	134
1060 Emeline- HSA Offices/Morgue	1060 Emeline Avenue	11,830	107,461	15,546	232	164	47
2700 Brommer St- Public Works Facility	2700 Brommer Street	13,800	122,475	4,215	130	96	39
9 Crestview Dr- Watsonville Health Clinic	9 Crestview Drive	10,706	175,966	7,345	257	194	34

Table 3- Best Performing Facilities (Source: AMBAG Energy Watch)

Facility Name	Facility Address	Facility Floor Space	Site Electric Use (kWh)	Site Natural Gas Use (Therms)	Facility EUI (kBtu/Sq. Ft.)	Nat'l Median EUI (kBtu/Sq. Ft.)	% Difference
1430 Freedom Blvd.- Courthouse + County Offices	1430 Freedom Blvd	19,485	147,036	11,551	143	302	-51
701 Ocean St- Govt. Cntr + Courthouse	701 Ocean St	250,951	3,359,806	56,266	174	311	-43
420-440 May Ave- Child Support Services	420-440 May Ave	12,444	115,674	2,391	126	214	-41
1040 Emeline Ave- Adult School/Career Center	1040 Emeline Ave	29,776	84,636	21,154	101	177	-40
1020 Emeline Ave- Human Resources Administration	1020 Emeline Ave	29,085	287,337	14,378	160	213	-23

Table 4- Remaining Facilities (Source: AMBAG Energy Watch)

Facility Name	Facility Address	Facility Floor Space	Site Electric Use (kWh)	Site Natural Gas Use (Therms)	Facility EUI (kBtu/Sq. Ft.)	Nat'l Median EUI (kBtu/Sq. Ft.)	% Difference
1400 Emeline Ave- Health Services Admin Offices	1400 Emeline Ave	71,950	1,131,729	32,679	231	235	-3
119 W Beach St- Welfare Office	119 W Beach St	11,325	115,672	4,106	151	160	-3
1000 Emeline Ave- Welfare Building	1000 Emeline Ave	11,778	119,952	5,868	160	164	3
259 Water St- Detention Center	259 Water St	72,361	321,979	56,712	129	127	5
1080 Emeline Ave- Health Services	1080 Emeline Ave	56,570	785,961	23,094	196	184	10

# City of Gonzales Community GHG Inventory

Table 5- 2005 & 2010 GHG Inventory (Source: AMBAG Energy Watch)

Sector	2005	2010	Percent Change from 2005 Baseline
Residential	6,253	6,509	4%
Commercial/Industrial	9,412	6,357	-32%
Transportation	4,540	4,084	-10%
Wastewater Treatment	209	209	0%
Waste Generation	1,525	963	-37%
<b>TOTAL</b>	<b>21,939</b>	<b>18,122</b>	<b>-17%</b>



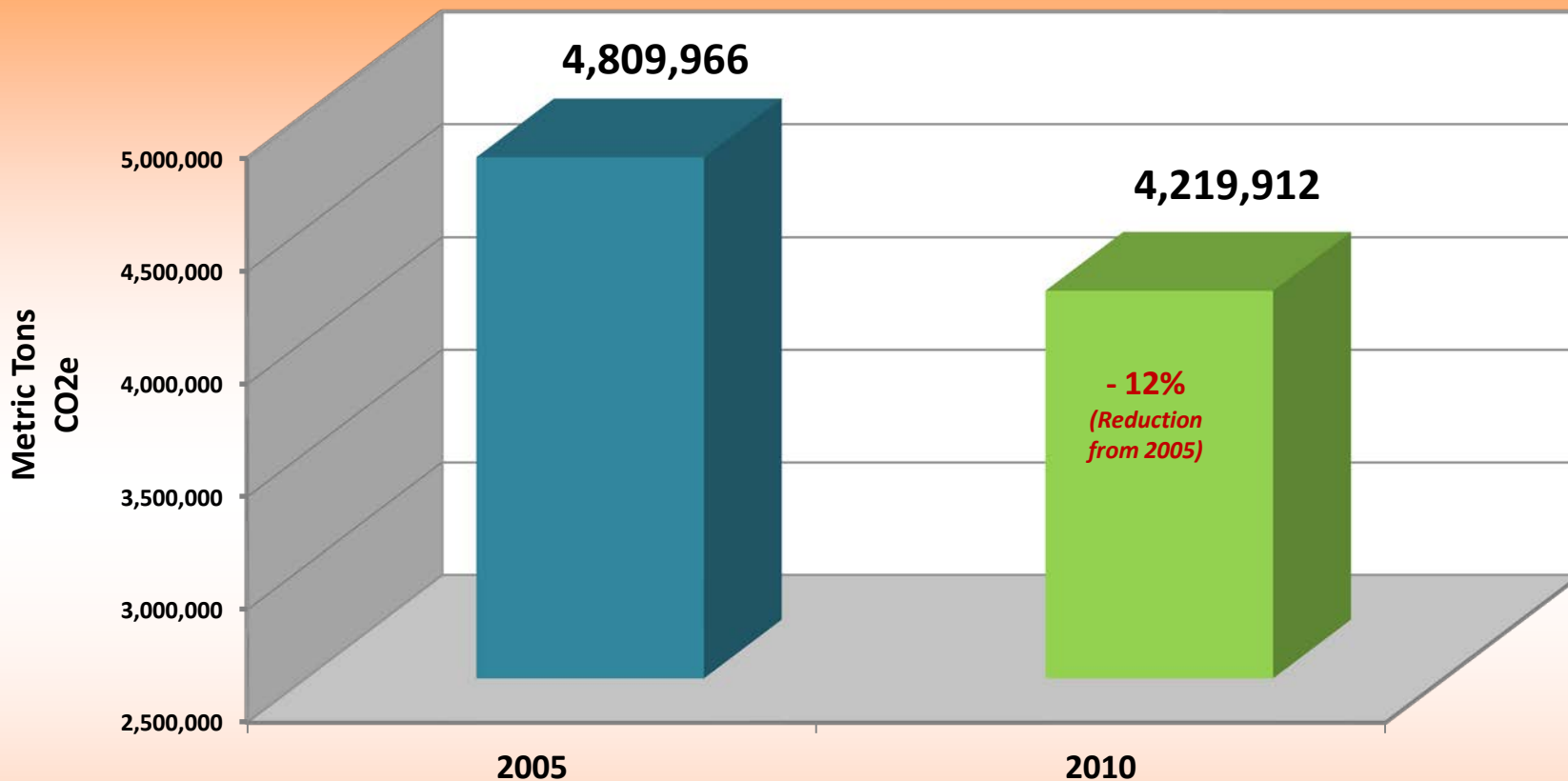
# County of Santa Cruz

## Energy Efficiency Measures

Table 7- Overview of Selected Energy Efficiency and Conservation Measures (Source: AMBAG Energy Watch)

Measure Reference Number	Energy Measure	Estimated Annual Reduction in CO <sub>2</sub> e	Estimated 1 <sup>st</sup> Year Energy Savings in mmbtu*	Estimated 1 <sup>st</sup> Year Utility Cost Savings*
CW-1	PG&E EE Programs (2006 to Q2 of 2012)	3,914	62,424	\$2,180,815
	PG&E EE Programs (Future)	602	9,604	\$335,510
CW-2	AMBAG Energy Watch Retrofits (2006 to Q2 of 2012)	1,203	18,988	\$696,142
	AMBAG Energy Watch projects (Current/Pending)	308	5,527	\$93,669
	AMBAG Energy Watch projects (Future)	185	2,921	\$107,099
CW-3	Right Lights (2006 to Q2 of 2012)	1,218	19,230	\$705,010
	Right Lights (Future)	187	2,958	\$108,463
NR-1	Green Business Program (Certified Prior to 2013)	614	n/a	n/a
	Green Business Program (Growth/Expansion)	584	n/a	n/a
CW-4	Transportation - Provide Electric Vehicle Charging	336	-52,322	\$1,918,230
RES-1	Energy Efficiency Retrofits at Time of Sale	262	4,539	\$95,290
NR-2	Restaurant Retrofit Program	100	6,812	\$137,565
RES-2	Building Energy - Weatherization Programs	89	1,625	\$21,175
CW-5	Renewable Energy - Solar PV	541	8,487	\$311,143
	Renewable Energy - Solar PV (Growth )	108	1,697	\$62,229
RES-3	Renewable Energy - Solar Water Heaters	98	1,811	\$21,680
	Renewable Energy - Solar Water Heaters (Growth)	19	359	\$4,304
NR-3	Building Energy - 3rd Party Commissioning	64	1,093	\$22,750
RES-4	Lighting - Multi Family Housing Retrofits	25	375	\$13,744
CW-6	Beyond Title 24 - Residential	47	893	\$13,138
	Beyond Title 24 - Commercial	25	519	\$14,800
CW-7	Energy Efficiency Education Residential	72	1,243	\$27,425
	Energy Efficiency Education Commercial	4	64	\$1,825
CW-8	Renewable Energy - Wind Power	17	259	\$9,500
<b>MEASURE REFERENCE KEY:</b> CW = Community-wide Measure NR = Non-Residential Measure RES = Residential Measure		<b>TOTALS</b>	<b>99,108</b>	<b>3,065,046</b>

# Total Monterey Bay Regional GHG Emissions



In partnership with our 21 member jurisdictions, AMBAG Energy Watch generated this regional GHG emission analysis using ICLEI tools for calculating Community-wide GHG Inventories.

# 2010 AMBAG Region Proportional GHG Emissions By Sector

