

California Greenhouse Gas Inventory for 2000-2010 — by Sector and Activity

million tonnes of CO2 equivalent - (based upon IPCC Second Assessment Report's Global Warming Potentials)

Gross emissions & sinks	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Electricity Generation (In State)	60.71	64.68	51.43	49.78	50.88	46.77	51.56	55.77	55.95	56.15	50.28
<i>CHP: Commercial</i>	0.73	0.67	0.76	0.86	0.69	0.73	0.72	0.78	0.77	1.05	0.67
<i>CHP: Industrial</i>	18.17	16.71	20.25	17.78	15.31	14.80	13.86	13.81	13.64	17.04	16.23
<i>Merchant Owned</i>	33.85	39.74	24.66	24.92	28.40	24.03	27.09	30.15	29.66	27.38	20.83
<i>Transmission and Distribution</i>	0.85	0.80	0.69	0.69	0.68	0.69	0.69	0.62	0.62	0.61	0.58
<i>Utility Owned</i>	7.10	6.75	5.06	5.53	5.79	6.52	9.20	10.42	11.27	10.07	11.98
Electricity Generation (Imports)	46.23	59.37	59.35	64.92	66.41	63.16	54.98	60.12	66.16	48.35	43.87
<i>Specified Imports</i>	31.64	33.60	32.05	32.51	33.13	32.80	26.73	27.08	27.90	33.05	30.14
<i>Transmission and Distribution</i>	0.32	0.35	0.38	0.35	0.36	0.35	0.29	0.31	0.33	0.30	0.28
<i>Unspecified Imports</i>	14.27	25.43	26.92	32.05	32.92	30.02	27.96	32.73	37.93	14.99	13.45
Transportation	171.87	175.01	181.51	179.47	183.46	186.34	186.95	187.38	178.18	173.34	173.18
<i>Aviation</i>	3.86	3.70	4.00	3.84	4.37	4.84	5.04	5.26	5.22	5.33	4.76
<i>Not Specified Transportation</i>	3.42	4.10	2.95	2.89	2.91	3.12	3.01	2.57	2.36	2.38	2.99
<i>On Road</i>	159.51	162.34	168.79	166.61	169.85	171.35	171.63	172.66	164.39	160.25	159.70
<i>Rail</i>	1.88	1.89	2.50	2.70	2.91	3.34	3.53	3.17	2.58	1.95	2.35
<i>Water-borne</i>	3.21	2.99	3.28	3.42	3.42	3.69	3.74	3.71	3.62	3.42	3.39
Industrial	105.28	103.16	103.89	102.08	103.79	103.26	101.68	99.21	101.91	91.28	93.68
<i>CHP: Industrial</i>	11.69	10.47	10.65	10.59	12.91	12.40	12.15	11.14	10.39	10.26	7.72
<i>Landfills</i>	6.13	6.21	6.14	6.23	6.17	6.47	6.54	6.49	6.66	6.70	6.72
<i>Manufacturing</i>	30.45	29.57	31.06	27.40	27.69	27.12	27.48	25.58	26.35	23.10	25.36
<i>Mining</i>	0.86	0.31	0.31	0.34	0.36	0.34	0.11	0.16	0.19	0.14	0.15
<i>Not Specified Industrial</i>	1.67	1.57	1.62	1.50	1.54	1.55	1.62	1.61	1.61	1.47	1.62
<i>Oil & Gas Extraction</i>	17.75	17.77	16.52	18.21	17.93	16.71	14.01	14.63	17.81	16.71	15.78
<i>Petroleum Marketing</i>	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<i>Petroleum Refining</i>	32.07	32.77	32.95	33.63	32.68	33.89	34.98	34.68	34.02	28.07	30.75
<i>Pipelines</i>	2.32	2.14	2.30	1.84	2.11	2.39	2.37	2.49	2.45	2.38	3.13
<i>Solid Waste Treatment</i>	0.12	0.13	0.15	0.16	0.17	0.19	0.20	0.22	0.23	0.25	0.26
<i>Wastewater Treatment</i>	2.22	2.20	2.20	2.19	2.22	2.21	2.21	2.21	2.20	2.20	2.19
Commercial	12.62	12.42	14.22	13.06	13.38	13.00	13.30	13.37	13.36	13.96	14.51
<i>CHP: Commercial</i>	1.09	1.05	1.06	0.26	0.62	0.40	0.42	0.49	0.37	0.92	1.03
<i>Communication</i>	0.19	0.18	0.20	0.19	0.19	0.17	0.19	0.18	0.17	0.16	0.15
<i>Domestic Utilities</i>	0.25	0.18	0.17	0.37	0.33	0.23	0.29	0.30	0.28	0.28	0.27
<i>Education</i>	1.23	1.07	1.24	1.10	1.09	1.08	1.12	1.10	1.01	1.03	1.05
<i>Food Services</i>	1.90	1.97	2.48	2.31	2.28	2.30	2.47	2.43	2.32	2.23	2.24
<i>Health Care</i>	1.39	1.42	1.66	1.48	1.44	1.43	1.52	1.49	1.45	1.45	1.51
<i>Hotels</i>	0.63	0.67	0.78	0.69	0.68	0.68	0.75	0.75	0.73	0.71	0.73
<i>National Security</i>	0.20	0.31	0.21	0.19	0.20	0.18	0.21	0.20	0.17	0.18	0.17

California Environmental Protection Agency

 Air Resources Board

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Gross emissions & sinks	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<i>Not Specified Commercial</i>	3.97	4.02	4.51	4.66	4.75	4.73	4.38	4.40	4.68	4.81	5.12
<i>Offices</i>	0.77	0.55	0.66	0.67	0.70	0.69	0.73	0.63	0.70	0.68	0.68
<i>Retail & Wholesale</i>	0.82	0.87	1.13	1.03	1.02	1.02	1.11	1.06	0.97	1.00	1.03
<i>Transportation Services</i>	0.18	0.13	0.13	0.11	0.10	0.09	0.12	0.35	0.51	0.52	0.53
Residential	29.65	28.72	28.88	28.41	29.45	28.18	28.55	28.70	29.03	28.65	29.38
<i>Household Use</i>	29.65	28.72	28.88	28.41	29.45	28.18	28.55	28.70	29.03	28.65	29.38
Agriculture & Forestry	29.94	30.12	33.26	31.67	33.42	33.67	34.78	33.62	34.53	33.00	32.64
<i>Ag Energy Use</i>	3.82	3.83	4.39	4.38	4.53	4.63	5.33	3.80	3.92	2.65	2.82
<i>Ag Residue Burning</i>	0.08	0.06	0.06	0.06	0.06	0.07	0.06	0.07	0.07	0.07	0.07
<i>Ag Soil Management</i>	8.63	8.22	10.22	10.00	10.19	9.76	9.81	8.92	9.43	9.31	9.24
<i>Enteric Fermentation</i>	8.32	8.48	8.72	8.40	8.76	9.05	9.14	9.70	9.67	9.51	9.35
<i>Forest and Range Management</i>	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
<i>Histosol Cultivation</i>	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16
<i>Manure Management</i>	8.18	8.69	8.98	7.96	8.94	9.28	9.55	10.23	10.56	10.53	10.25
<i>Rice Cultivation</i>	0.57	0.49	0.55	0.53	0.61	0.55	0.54	0.55	0.54	0.58	0.57
Not Specified	8.95	9.64	10.32	11.12	11.80	12.29	12.63	12.71	12.79	13.11	14.06
<i>Not Specified Not Specified</i>	8.58	9.32	10.09	10.84	11.59	12.08	12.40	12.48	12.57	12.90	13.84
<i>Solvents & Chemicals</i>	0.36	0.32	0.23	0.27	0.21	0.20	0.22	0.22	0.23	0.21	0.22
Agriculture & Forestry	-4.48	-4.29	-4.16	-4.17	-4.17	-4.03	-3.88	-3.95	-3.85	-3.81	-3.76
<i>Net CO2 Flux</i>	-4.48	-4.29	-4.16	-4.17	-4.17	-4.03	-3.88	-3.95	-3.85	-3.81	-3.76
Summary for Gross emissions & sinks	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Gross California Emissions	465.25	483.12	482.87	480.51	492.60	486.68	484.43	490.89	491.92	457.83	451.60
Net CO2 flux from Forests and Rangelands	-4.48	-4.29	-4.16	-4.17	-4.17	-4.03	-3.88	-3.95	-3.85	-3.81	-3.76
Net California Emissions	460.77	478.83	478.71	476.35	488.43	482.65	480.55	486.94	488.06	454.01	447.84

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Excluded Emissions	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Transportation	44.99	40.06	44.38	40.35	40.97	45.51	46.59	50.45	47.89	49.31	45.24
<i>Aviation</i>	28.67	27.96	29.98	27.20	29.10	29.94	29.47	31.93	29.03	30.79	29.18
<i>Water-borne</i>	16.32	12.11	14.40	13.15	11.87	15.57	17.12	18.52	18.86	18.52	16.06
Military	3.81	4.36	4.13	4.18	3.88	3.41	3.11	2.93	2.77	2.70	3.16
<i>Not Specified Military</i>	3.81	4.36	4.13	4.18	3.88	3.41	3.11	2.93	2.77	2.70	3.16
Summary for Excluded Emissions	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
International and Interstate Emissions	48.80	44.42	48.51	44.53	44.86	48.92	49.71	53.38	50.66	52.01	48.40

Archive

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CO2 from biogenic materials	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Electricity Generation (In State)	8.20	8.35	8.49	8.73	8.11	8.16	8.39	7.97	8.03	9.93	8.55
<i>CHP: Commercial</i>	0.27	0.10	0.16	0.31	0.31	0.37	0.35	0.31	0.31	0.11	0.02
<i>CHP: Industrial</i>	1.74	2.39	1.70	1.83	1.38	1.27	1.26	1.26	1.12	1.83	1.59
<i>Merchant Owned</i>	6.06	5.66	6.38	6.26	6.14	6.18	6.44	6.05	6.25	7.46	6.48
<i>Utility Owned</i>	0.13	0.21	0.25	0.33	0.27	0.34	0.35	0.35	0.35	0.53	0.45
Industrial	10.50	11.02	9.22	9.14	9.76	10.66	10.66	10.65	10.49	9.39	9.72
<i>CHP: Industrial</i>	1.30	1.03	0.61	0.62	1.14	1.50	1.53	1.52	1.48	0.43	0.65
<i>Landfills</i>	5.42	5.73	5.97	5.96	6.02	6.31	6.53	6.47	6.63	6.73	6.81
<i>Manufacturing</i>	0.06	0.06	0.07	0.07	0.07	0.07	0.05	0.05	0.06	0.07	0.10
<i>Not Specified Industrial</i>	3.72	4.19	2.57	2.50	2.53	2.78	2.56	2.61	2.32	2.16	2.16
<i>Petroleum Refining</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Commercial	0.62	0.60	0.62	0.64	0.66	0.49	0.48	0.52	0.52	0.51	0.42
<i>CHP: Commercial</i>	0.04	0.02	0.02	0.02	0.05	0.10	0.12	0.14	0.12	0.11	0.02
<i>Not Specified Commercial</i>	0.58	0.59	0.60	0.63	0.61	0.39	0.36	0.38	0.41	0.40	0.40
Residential	3.55	3.33	3.38	3.56	3.65	2.43	2.21	2.44	2.55	2.44	2.44
<i>Household Use</i>	3.55	3.33	3.38	3.56	3.65	2.43	2.21	2.44	2.55	2.44	2.44
Agriculture & Forestry	1.39	1.16	1.16	1.20	1.18	1.26	1.17	1.32	1.32	1.38	1.38
<i>Ag Residue Burning</i>	1.39	1.16	1.16	1.20	1.18	1.26	1.17	1.32	1.32	1.38	1.38
Summary for CO2 from biogenic materials	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Carbon dioxide from Biogenic sources	24.26	24.47	22.86	23.27	23.36	22.98	22.91	22.89	22.92	23.64	22.50