

California Carbon Dioxide Inventory for 2000-2015 — by Sector and Activity

CO₂million tonnes of CO₂ equivalent - (based upon IPCC Fourth Assessment Report's 100-yr Global Warming Potentials)

Included Emissions	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Electricity Generation (In State)	58.70	62.74	49.44	47.81	48.93	44.83	49.63	53.90	54.10	53.09	46.53	40.91	50.82	49.12	51.37	49.50
<i>CHP: Commercial</i>	0.73	0.67	0.76	0.86	0.69	0.73	0.71	0.77	0.76	1.05	0.79	0.86	0.62	0.84	0.88	1.16
<i>CHP: Industrial</i>	18.07	16.60	20.14	17.67	15.22	14.71	13.77	13.72	13.56	14.72	12.51	13.78	12.49	12.80	13.84	11.64
<i>Merchant Owned</i>	32.81	38.72	23.65	23.91	27.39	23.01	26.09	29.13	28.65	27.26	21.27	15.09	24.10	22.43	23.39	22.71
<i>Utility Owned</i>	7.09	6.75	4.89	5.37	5.63	6.38	9.05	10.27	11.13	10.06	11.97	11.18	13.61	13.06	13.26	14.00
Electricity Generation (Imports)	45.67	58.72	58.67	64.25	65.73	62.50	54.43	59.53	65.51	47.89	43.43	46.70	43.91	39.89	36.37	33.60
<i>Specified Imports</i>	31.47	33.42	31.88	32.34	32.95	32.62	26.59	26.94	27.76	32.91	29.99	31.20	26.45	28.07	22.95	22.40
<i>Unspecified Imports</i>	14.20	25.31	26.80	31.91	32.78	29.89	27.84	32.59	37.75	14.98	13.44	15.51	17.46	11.81	13.42	11.20
Transportation	171.32	172.02	179.37	177.07	179.00	181.19	181.47	181.69	170.74	164.12	160.87	157.69	157.58	156.39	158.38	163.05
<i>Aviation</i>	4.11	4.03	4.08	4.21	4.45	4.45	4.52	4.93	4.46	3.99	3.81	3.68	3.72	3.88	3.85	4.17
<i>Not Specified Transportation</i>	1.98	1.89	1.93	1.85	1.89	2.01	2.05	1.84	2.08	1.65	2.09	1.72	1.71	1.77	2.03	2.16
<i>Off Road</i>	2.62	2.78	2.76	2.83	3.02	3.21	3.30	3.17	2.81	2.24	2.03	2.13	2.23	2.33	2.43	2.52
<i>On Road</i>	157.25	158.12	164.50	161.55	162.95	164.16	164.00	164.36	155.03	150.67	146.95	143.99	143.88	142.18	143.40	147.92
<i>Rail</i>	1.87	1.88	2.49	2.85	2.90	3.33	3.52	3.16	2.37	1.94	2.30	2.63	2.46	2.39	2.74	2.41
<i>Water-borne</i>	3.49	3.31	3.62	3.78	3.79	4.03	4.08	4.24	4.00	3.63	3.70	3.55	3.59	3.85	3.94	3.87
Industrial	88.30	86.45	87.42	86.77	89.20	86.98	84.22	81.16	81.47	79.00	82.40	81.88	82.18	84.63	84.74	82.69
<i>CHP: Industrial</i>	11.63	10.42	10.61	10.55	12.85	12.34	12.09	11.08	10.34	12.49	12.55	11.09	10.76	10.94	9.59	8.92
<i>Manufacturing</i>	27.36	26.41	28.30	24.72	25.11	24.18	24.37	22.45	23.14	20.00	21.95	23.38	24.17	24.88	25.14	24.81
<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	0.15	0.17	0.16	0.15	0.15
<i>Not Specified Industrial</i>	1.98	1.86	1.94	1.83	1.86	1.86	1.87	1.93	1.86	1.73	1.75	1.67	1.58	1.79	1.92	1.92
<i>Oil & Gas: Production & Processing</i>	17.68	17.91	16.66	19.18	19.34	18.05	15.90	15.93	17.19	16.08	15.17	15.08	15.07	17.23	17.46	17.55
<i>Petroleum Refining & Hydrogen Production</i>	28.24	28.85	29.00	29.65	28.89	29.56	29.45	29.02	28.24	28.12	30.23	29.86	29.65	29.00	29.17	28.02
<i>Transmission and Distribution</i>	0.56	0.67	0.61	0.52	0.77	0.66	0.44	0.57	0.52	0.43	0.61	0.64	0.77	0.64	1.31	1.31
Commercial	12.53	12.33	14.13	13.06	13.29	12.93	13.23	13.29	13.34	13.78	14.47	14.46	14.14	13.97	13.06	13.30
<i>CHP: Commercial</i>	1.09	1.05	1.06	0.26	0.62	0.40	0.42	0.49	0.37	0.92	0.92	0.78	0.76	0.71	0.58	0.56
<i>Communication</i>	0.19	0.17	0.20	0.19	0.19	0.17	0.19	0.18	0.16	0.16	0.15	0.15	0.14	0.14	0.12	0.11
<i>Domestic Utilities</i>	0.25	0.18	0.17	0.37	0.32	0.23	0.29	0.30	0.28	0.28	0.27	0.25	0.26	0.25	0.25	0.23
<i>Education</i>	1.22	1.07	1.24	1.09	1.09	1.07	1.12	1.09	1.01	1.03	1.05	1.06	0.99	1.02	0.85	0.84
<i>Food Services</i>	1.90	1.97	2.48	2.31	2.27	2.29	2.46	2.42	2.31	2.22	2.23	2.25	2.27	2.33	2.30	2.32
<i>Health Care</i>	1.38	1.42	1.65	1.47	1.43	1.43	1.52	1.49	1.44	1.44	1.51	1.55	1.54	1.56	1.46	1.46
<i>Hotels</i>	0.63	0.67	0.78	0.69	0.67	0.68	0.74	0.75	0.73	0.70	0.73	0.74	0.73	0.74	0.71	0.72
<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	0.18	0.16	0.14	0.13	0.13
<i>Not Specified Commercial</i>	3.91	3.96	4.44	4.68	4.68	4.68	4.33	4.34	4.68	4.65	5.22	5.21	4.89	4.79	4.63	4.83
<i>Offices</i>	0.77	0.55	0.66	0.67	0.70	0.68	0.72	0.63	0.69	0.67	0.68	0.69	0.65	0.64	0.49	0.49
<i>Retail & Wholesale</i>	0.81	0.87	1.13	1.03	1.01	1.02	1.11	1.06	0.97	1.00	1.02	1.05	1.17	1.09	0.99	1.05
<i>Transportation Services</i>	0.18	0.13	0.13	0.11	0.10	0.09	0.12	0.34	0.51	0.51	0.53	0.56	0.57	0.58	0.56	0.56

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Included Emissions	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Residential	29.27	28.36	28.51	28.03	29.06	27.89	28.28	28.41	28.72	28.36	29.09	29.54	27.24	28.02	22.75	23.05
Household Use	29.27	28.36	28.51	28.03	29.06	27.89	28.28	28.41	28.72	28.36	29.09	29.54	27.24	28.02	22.75	23.05
Agriculture & Forestry	4.07	3.97	4.60	4.48	4.72	4.88	5.77	4.03	4.25	2.77	2.94	3.82	4.09	3.92	4.86	4.57
Ag Energy Use	3.80	3.81	4.37	4.24	4.49	4.59	5.28	3.77	4.08	2.60	2.77	3.64	3.86	3.70	4.65	4.38
Ag Soil Management	0.27	0.16	0.23	0.24	0.24	0.30	0.48	0.26	0.17	0.17	0.18	0.17	0.23	0.22	0.21	0.19
Not Specified	0.37	0.35	0.30	0.31	0.28	0.28	0.28	0.28	0.27	0.26	0.27	0.25	0.24	0.18	0.24	0.17
Solvents & Chemicals	0.37	0.35	0.30	0.31	0.28	0.28	0.28	0.28	0.27	0.26	0.27	0.25	0.24	0.18	0.24	0.17
Summary for Included Emissions	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
California CO ₂ Emissions	410.2	424.9	422.5	421.8	430.2	421.5	417.3	422.3	418.4	389.3	380.0	375.2	380.2	376.1	371.8	369.9

California Carbon Dioxide Inventory for 2000-2015 — by Sector and Activity

million tonnes of CO2 equivalent - (based upon IPCC Fourth Assessment Report's 100-yr Global Warming Potentials)

Excluded Emissions	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Transportation	50.57	43.69	48.61	42.93	47.00	50.31	52.80	55.62	52.16	51.68	52.93	51.15	49.67	51.15	53.15	56.16
<i>Aviation</i>	34.87	32.22	34.88	33.50	35.86	35.52	36.46	38.11	34.56	33.90	33.21	33.70	32.41	34.70	37.08	39.85
<i>Water-borne</i>	15.69	11.47	13.73	9.42	11.14	14.78	16.33	17.51	17.60	17.78	19.73	17.45	17.26	16.44	16.06	16.31
Military	3.77	4.32	4.09	4.12	3.85	3.38	3.09	2.90	2.75	2.68	3.08	2.66	3.27	2.87	3.53	2.97
<i>Not Specified Military</i>	3.77	4.32	4.09	4.12	3.85	3.38	3.09	2.90	2.75	2.68	3.08	2.66	3.27	2.87	3.53	2.97
Summary for Excluded Emissions	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
International and Interstate CO2 Emissions	54.3	48.0	52.7	47.0	50.8	53.7	55.9	58.5	54.9	54.4	56.0	53.8	52.9	54.0	56.7	59.1

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CO2

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Forested Lands & Wood Products **2000** **2001** **2002** **2003** **2004** **2005** **2006** **2007** **2008** **2009** **2010** **2011** **2012** **2013** **2014** **2015**

This section of the inventory is currently under development