

California Methane Inventory for 2000-2015 — by Sector and Activity

Methane

million 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)	0.10	0.10	0.10	0.10	0.09	0.09	0.09	0.09	0.09	0.10	0.09	0.17	0.08	0.22	0.22	0.21
<i>CHP: Commercial</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<i>CHP: Industrial</i>	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02
<i>Merchant Owned</i>	0.06	0.06	0.06	0.06	0.06	0.05	0.06	0.06	0.06	0.06	0.06	0.14	0.05	0.15	0.15	0.14
<i>Utility Owned</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.05	0.05	0.05
Electricity Generation (Imports)	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.02	0.03
<i>Specified Imports</i>	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.02	0.03	0.02	0.02
<i>Unspecified Imports</i>	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Transportation	0.58	0.52	0.48	0.44	0.53	0.47	0.42	0.38	0.33	0.31	0.29	0.27	0.24	0.23	0.21	0.20
<i>Aviation</i>	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<i>Not Specified Transportation</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<i>Off Road</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<i>On Road</i>	0.57	0.51	0.46	0.42	0.52	0.45	0.40	0.36	0.32	0.29	0.27	0.25	0.23	0.21	0.19	0.18
<i>Rail</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<i>Water-borne</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Industrial	13.92	14.15	14.46	14.34	14.42	14.96	15.22	15.10	15.29	15.42	15.60	15.87	15.82	16.03	16.25	16.42
<i>CHP: Industrial</i>	0.03	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.03	0.02	0.02	0.02	0.02
<i>Landfills</i>	7.21	7.36	7.31	7.42	7.41	7.59	7.65	7.71	7.88	8.02	8.11	8.19	8.20	8.22	8.28	8.40
<i>Manufacturing</i>	0.12	0.14	0.10	0.10	0.09	0.09	0.08	0.08	0.07	0.06	0.07	0.07	0.06	0.05	0.06	0.06
<i>Mining</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<i>Not Specified Industrial</i>	0.04	0.06	0.09	0.09	0.10	0.37	0.41	0.21	0.17	0.11	0.20	0.30	0.30	0.33	0.35	0.30
<i>Oil & Gas: Production & Processing</i>	1.39	1.43	1.46	1.49	1.52	1.54	1.58	1.62	1.65	1.67	1.72	1.79	1.85	2.03	2.15	2.26
<i>Petroleum Marketing</i>	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
<i>Petroleum Refining & Hydrogen</i>	0.13	0.10	0.10	0.09	0.08	0.09	0.09	0.09	0.08	0.10	0.08	0.11	0.09	0.08	0.08	0.07
<i>Solid Waste Treatment</i>	0.09	0.10	0.11	0.12	0.13	0.14	0.14	0.15	0.16	0.17	0.18	0.19	0.20	0.21	0.21	0.22
<i>Transmission and Distribution [1]</i>	3.63	3.69	4.02	3.78	3.85	3.89	4.03	4.00	4.07	4.11	4.07	4.07	3.97	3.98	3.99	4.05
<i>Wastewater Treatment</i>	1.26	1.24	1.25	1.22	1.21	1.21	1.20	1.20	1.17	1.15	1.14	1.13	1.12	1.11	1.09	1.03
Commercial	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
<i>CHP: Commercial</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<i>Communication</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<i>Domestic Utilities</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<i>Education</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<i>Food Services</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<i>Health Care</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<i>Hotels</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<i>National Security</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<i>Not Specified Commercial</i>	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
<i>Offices</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

California Methane Inventory for 2000-2015 — by Sector and Activity

Methane

million 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
Retail & Wholesale	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transportation Services	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential	0.04	0.04	0.04	0.04	0.05	0.04	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.05
Household Use	0.04	0.04	0.04	0.04	0.05	0.04	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.05
Agriculture & Forestry	19.46	19.53	20.85	21.19	20.67	21.13	21.42	23.74	23.75	23.15	23.74	23.64	24.18	23.26	23.30	22.71
Ag Energy Use	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ag Residue Burning	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Enteric Fermentation	10.36	10.25	10.91	11.00	10.77	11.08	11.13	12.31	12.04	11.65	12.13	11.98	12.10	11.78	11.85	11.54
Manure Management	7.88	8.23	8.76	9.06	8.60	8.89	9.13	10.25	10.56	10.26	10.38	10.38	10.84	10.23	10.46	10.23
Rice Cultivation	1.19	1.02	1.15	1.10	1.28	1.14	1.13	1.15	1.12	1.20	1.20	1.26	1.22	1.22	0.96	0.91
Summary for Included Emissions	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Included Inventory CH ₄ Emissions	34.1	34.4	36.0	36.1	35.8	36.7	37.2	39.4	39.5	39.0	39.8	40.0	40.4	39.8	40.1	39.6

[1] The exceptional Aliso Canyon natural gas leak event released 1.96 MMTCO₂e of unanticipated emissions in calendar year 2015 and an additional 0.52 MMTCO₂e in 2016. These emissions will be mitigated in the future according to legal settlement and are presented alongside but tracked separately from routine inventory emissions.

California Methane Inventory for 2000-2015 — by Sector and Activity

Methanemillion 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	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02
<i>Aviation</i>	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
<i>Water-borne</i>	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Industrial	2.75	2.74	2.75	2.75	2.76	2.77	2.79	2.82	2.82	2.81	2.80	2.80	2.80	2.77	2.79	2.79
<i>Oil & Gas: Production & Processing</i>	2.75	2.74	2.75	2.75	2.76	2.77	2.79	2.82	2.82	2.81	2.80	2.80	2.80	2.77	2.79	2.79
Military	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<i>Not Specified Military</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Summary for Excluded Emissions	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
International and Interstate CH ₄ Emissions	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8

California Methane Inventory for 2000-2015 — by Sector and Activity

Methane

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

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