

California Greenhouse Gas Inventory for 2000-2010

— by Category as Defined in the Scoping Plan

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

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Transportation	171.87	175.01	181.51	179.47	183.46	186.34	186.95	187.38	178.18	173.34	173.18
On Road	159.51	162.34	168.79	166.61	169.85	171.35	171.63	172.66	164.39	160.25	159.70
Passenger Vehicles	126.85	129.29	135.63	133.07	134.66	134.83	134.71	134.93	129.37	127.69	126.99
Heavy Duty Trucks	32.66	33.05	33.16	33.53	35.19	36.52	36.93	37.74	35.02	32.56	32.70
Ships & Commercial Boats	3.21	2.99	3.28	3.42	3.42	3.69	3.74	3.71	3.62	3.42	3.39
Aviation (Intrastate)	3.86	3.70	4.00	3.84	4.37	4.84	5.04	5.26	5.22	5.33	4.76
Rail	1.88	1.89	2.50	2.70	2.91	3.34	3.53	3.17	2.58	1.95	2.35
Unspecified	3.42	4.10	2.95	2.89	2.91	3.12	3.01	2.57	2.36	2.38	2.99
Electric Power	105.76	122.91	109.70	113.65	116.25	108.89	105.55	114.97	121.16	103.58	93.30
In-State Generation	59.85	63.88	50.73	49.09	50.20	46.08	50.87	55.15	55.34	55.53	49.70
Natural Gas	50.92	55.46	42.16	40.91	42.40	38.11	43.07	47.12	48.02	48.90	43.10
Other Fuels	6.85	6.36	6.37	5.99	5.59	5.77	5.64	5.85	5.15	5.28	5.49
Fugitive and Process Emissions	2.08	2.06	2.20	2.19	2.21	2.19	2.16	2.19	2.16	1.36	1.11
Imported Electricity	45.91	59.03	58.97	64.57	66.05	62.81	54.69	59.81	65.83	48.05	43.59
Unspecified Imports	14.27	25.43	26.92	32.05	32.92	30.02	27.96	32.73	37.93	14.99	13.45
Specified Imports	31.64	33.60	32.05	32.51	33.13	32.80	26.73	27.08	27.90	33.05	30.14
Commercial and Residential	42.27	41.13	43.10	41.47	42.83	41.18	41.85	42.07	42.39	42.61	43.89
Residential Fuel Use	29.65	28.72	28.88	28.41	29.45	28.18	28.55	28.70	29.03	28.65	29.38
Natural Gas	28.02	27.42	27.53	26.66	27.37	25.97	26.59	26.72	26.66	26.30	27.03
Other Fuels	1.64	1.30	1.34	1.75	2.07	2.21	1.95	1.98	2.37	2.35	2.36
Commercial Fuel Use	11.53	11.36	13.17	12.80	12.76	12.60	12.88	12.87	12.99	13.04	13.47
Natural Gas	10.06	10.10	11.90	11.38	11.16	10.93	11.61	11.48	11.16	11.02	11.19
Other Fuels	1.46	1.26	1.27	1.43	1.60	1.67	1.27	1.39	1.83	2.02	2.29
Commercial Cogeneration Heat Output	1.09	1.05	1.06	0.26	0.62	0.40	0.42	0.49	0.37	0.92	1.03
Industrial	98.43	96.34	97.12	95.29	96.97	96.04	94.29	91.88	94.32	83.60	85.96
Refineries	32.13	32.82	33.00	33.69	32.74	33.95	35.04	34.74	34.08	28.13	30.80
General Fuel Use	22.30	21.04	22.45	18.60	19.05	18.15	18.05	17.01	18.15	17.60	20.26
Natural Gas	16.82	14.62	15.18	11.97	12.80	12.72	12.38	11.56	12.37	11.46	13.46
Other Fuels	5.48	6.41	7.27	6.63	6.25	5.43	5.67	5.45	5.77	6.14	6.80
Oil & Gas Extraction [1]	17.75	17.77	16.52	18.21	17.93	16.71	14.01	14.63	17.81	16.71	15.78
Fuel Use	17.07	16.94	15.79	17.47	17.56	16.37	13.24	13.83	17.02	15.92	15.00
Fugitive Emissions	0.69	0.83	0.73	0.74	0.37	0.35	0.77	0.80	0.79	0.79	0.78
Cement Plants	9.39	9.50	9.60	9.70	9.80	9.90	9.73	9.13	8.62	5.72	5.55
Clinker Production	5.43	5.52	5.60	5.68	5.77	5.85	5.80	5.55	5.28	3.60	3.46
Fuel Use	3.96	3.98	4.00	4.01	4.03	4.05	3.93	3.58	3.33	2.12	2.09
Cogeneration Heat Output	11.69	10.47	10.65	10.59	12.91	12.40	12.15	11.14	10.39	10.26	7.72
Other Fugitive and Process Emissions	5.17	4.73	4.90	4.51	4.56	4.93	5.30	5.23	5.27	5.18	5.84

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Recycling and Waste	6.25	6.34	6.29	6.39	6.34	6.65	6.75	6.71	6.90	6.94	6.98
<i>Landfills [2]</i>	<i>6.13</i>	<i>6.21</i>	<i>6.14</i>	<i>6.23</i>	<i>6.17</i>	<i>6.47</i>	<i>6.54</i>	<i>6.49</i>	<i>6.66</i>	<i>6.70</i>	<i>6.72</i>
<i>Composting</i>	<i>0.12</i>	<i>0.13</i>	<i>0.15</i>	<i>0.16</i>	<i>0.17</i>	<i>0.19</i>	<i>0.20</i>	<i>0.22</i>	<i>0.23</i>	<i>0.25</i>	<i>0.26</i>
High GWP	10.72	11.27	11.87	12.57	13.32	13.90	14.26	14.27	14.44	14.76	15.66
<i>Ozone Depleting Substance (ODS) Substitutes</i>	<i>8.58</i>	<i>9.32</i>	<i>10.09</i>	<i>10.84</i>	<i>11.59</i>	<i>12.08</i>	<i>12.40</i>	<i>12.48</i>	<i>12.57</i>	<i>12.90</i>	<i>13.84</i>
<i>Electricity Grid SF6 Losses [3]</i>	<i>1.17</i>	<i>1.15</i>	<i>1.07</i>	<i>1.05</i>	<i>1.04</i>	<i>1.03</i>	<i>0.99</i>	<i>0.93</i>	<i>0.95</i>	<i>0.91</i>	<i>0.85</i>
<i>Semiconductor Manufacturing [2]</i>	<i>0.97</i>	<i>0.80</i>	<i>0.71</i>	<i>0.68</i>	<i>0.68</i>	<i>0.78</i>	<i>0.87</i>	<i>0.86</i>	<i>0.92</i>	<i>0.95</i>	<i>0.96</i>
Agriculture [4]	29.75	29.93	33.07	31.48	33.24	33.48	34.59	33.44	34.34	32.81	32.45
<i>Livestock</i>	<i>16.50</i>	<i>17.17</i>	<i>17.70</i>	<i>16.36</i>	<i>17.69</i>	<i>18.33</i>	<i>18.69</i>	<i>19.93</i>	<i>20.23</i>	<i>20.05</i>	<i>19.60</i>
Enteric Fermentation (Digestive Process)	8.32	8.48	8.72	8.40	8.76	9.05	9.14	9.70	9.67	9.51	9.35
Manure Management	8.18	8.69	8.98	7.96	8.94	9.28	9.55	10.23	10.56	10.53	10.25
<i>Crop Growing & Harvesting</i>	<i>9.43</i>	<i>8.93</i>	<i>10.98</i>	<i>10.75</i>	<i>11.02</i>	<i>10.52</i>	<i>10.57</i>	<i>9.70</i>	<i>10.19</i>	<i>10.11</i>	<i>10.04</i>
Fertilizers	7.99	7.69	9.59	9.37	9.48	9.08	8.96	8.27	8.81	8.72	8.66
Soil Preparation and Disturbances	1.36	1.18	1.34	1.31	1.47	1.37	1.55	1.36	1.31	1.32	1.30
Crop Residue Burning	0.08	0.06	0.06	0.06	0.06	0.07	0.06	0.07	0.07	0.07	0.07
<i>General Fuel Use</i>	<i>3.82</i>	<i>3.83</i>	<i>4.39</i>	<i>4.38</i>	<i>4.53</i>	<i>4.63</i>	<i>5.33</i>	<i>3.80</i>	<i>3.92</i>	<i>2.65</i>	<i>2.82</i>
Diesel	2.52	2.69	3.04	3.11	3.17	3.41	3.87	2.68	3.00	1.78	1.99
Natural Gas	0.98	0.75	0.94	0.85	0.82	0.70	0.88	0.79	0.75	0.69	0.65
Gasoline	0.31	0.38	0.41	0.41	0.52	0.52	0.57	0.33	0.17	0.17	0.18
Other Fuels	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
Forestry	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
<i>Wildfire (CH₄ & N₂O Emissions)</i>	<i>0.19</i>	<i>0.19</i>	<i>0.19</i>	<i>0.19</i>	<i>0.19</i>	<i>0.19</i>	<i>0.19</i>	<i>0.19</i>	<i>0.19</i>	<i>0.19</i>	<i>0.19</i>
Total Gross Emissions	465.25	483.12	482.87	480.51	492.60	486.68	484.43	490.89	491.92	457.83	451.60
Forested Lands Net CO₂ [5]	-4.48	-4.29	-4.16	-4.17	-4.17	-4.03	-3.88	-3.95	-3.85	-3.81	-3.76
CO ₂ Absorbed by Forested Lands	-14.15	-14.14	-14.13	-14.12	-14.11	-14.09	-14.08	-14.07	-14.06	-14.05	-14.04
CO ₂ Emitted by Forested Lands	3.24	3.24	3.23	3.23	3.23	3.23	3.22	3.22	3.22	3.22	3.21
CO ₂ Emissions from Wood Products	6.43	6.61	6.74	6.72	6.71	6.83	6.98	6.90	6.99	7.02	7.07
Total Net Emissions	460.77	478.83	478.71	476.35	488.43	482.65	480.55	486.94	488.06	454.01	447.84

[1] Reflects emissions from combustion of natural gas, diesel, and lease fuel plus fugitive emissions

[2] These categories are listed in the Industrial sector of ARB's GHG Emission Inventory sectors

[3] This category is listed in the Electric Power sector of ARB's GHG Emission Inventory sectors

[4] Reflects use of updated USEPA models for determining emissions from livestock and fertilizers

[5] Revised methodology under development