

## California Methane Inventory for 2000-2014 — by Sector and Activity

Methane

million tonnes of CO<sub>2</sub> 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
<b>Electricity Generation (In State)</b>	<b>0.10</b>	<b>0.10</b>	<b>0.10</b>	<b>0.10</b>	<b>0.09</b>	<b>0.09</b>	<b>0.09</b>	<b>0.09</b>	<b>0.09</b>	<b>0.10</b>	<b>0.09</b>	<b>0.17</b>	<b>0.08</b>	<b>0.22</b>	<b>0.22</b>
<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
<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
<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
<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
<b>Electricity Generation (Imports)</b>	<b>0.01</b>	<b>0.02</b>	<b>0.02</b>	<b>0.02</b>	<b>0.02</b>	<b>0.02</b>	<b>0.02</b>	<b>0.02</b>	<b>0.02</b>	<b>0.02</b>	<b>0.02</b>	<b>0.02</b>	<b>0.03</b>	<b>0.03</b>	<b>0.02</b>
<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
<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
<b>Transportation</b>	<b>0.58</b>	<b>0.52</b>	<b>0.48</b>	<b>0.44</b>	<b>0.53</b>	<b>0.46</b>	<b>0.42</b>	<b>0.38</b>	<b>0.33</b>	<b>0.31</b>	<b>0.29</b>	<b>0.26</b>	<b>0.24</b>	<b>0.23</b>	<b>0.21</b>
<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
<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
<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
<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
<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
<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
<b>Industrial</b>	<b>14.32</b>	<b>14.53</b>	<b>15.04</b>	<b>14.56</b>	<b>14.64</b>	<b>14.84</b>	<b>15.20</b>	<b>15.13</b>	<b>15.50</b>	<b>15.72</b>	<b>15.66</b>	<b>15.84</b>	<b>15.69</b>	<b>15.74</b>	<b>15.98</b>
<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
<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
<i>Manufacturing</i>	0.15	0.17	0.13	0.13	0.12	0.13	0.12	0.11	0.11	0.10	0.10	0.11	0.11	0.07	0.07
<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
<i>Not Specified Industrial</i>	0.04	0.05	0.03	0.03	0.05	0.05	0.12	0.04	0.11	0.11	0.12	0.12	0.12	0.15	0.15
<i>Oil &amp; Gas Extraction</i>	1.70	1.70	1.68	1.64	1.62	1.58	1.58	1.62	1.63	1.64	1.65	1.68	1.75	1.82	1.82
<i>Petroleum Marketing</i>	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.03	0.03	0.00	0.00
<i>Petroleum Refining and Hydrogen Production</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
<i>Pipelines</i>	3.60	3.67	4.30	3.76	3.85	3.87	4.10	4.00	4.13	4.20	4.04	4.03	3.83	3.81	3.99
<i>Solid Waste Treatment</i>	0.19	0.21	0.23	0.25	0.26	0.28	0.30	0.32	0.34	0.36	0.38	0.39	0.41	0.43	0.45
<i>Wastewater Treatment</i>	1.26	1.24	1.25	1.22	1.21	1.21	1.20	1.21	1.19	1.16	1.16	1.15	1.13	1.13	1.11
<b>Commercial</b>	<b>0.01</b>	<b>0.01</b>	<b>0.01</b>	<b>0.01</b>	<b>0.01</b>	<b>0.01</b>	<b>0.01</b>	<b>0.01</b>	<b>0.01</b>	<b>0.01</b>	<b>0.01</b>	<b>0.01</b>	<b>0.01</b>	<b>0.01</b>	<b>0.01</b>
<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
<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
<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
<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
<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
<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
<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
<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
<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
<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

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

<b>Included Emissions</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
<i>Retail &amp; Wholesale</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
<i>Transportation 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
<b>Residential</b>	<b>0.04</b>	<b>0.04</b>	<b>0.04</b>	<b>0.04</b>	<b>0.05</b>	<b>0.04</b>	<b>0.03</b>	<b>0.03</b>	<b>0.04</b>	<b>0.04</b>	<b>0.04</b>	<b>0.04</b>	<b>0.04</b>	<b>0.05</b>	<b>0.05</b>
<i>Household Use</i>	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
<b>Agriculture &amp; Forestry</b>	<b>19.46</b>	<b>19.53</b>	<b>20.85</b>	<b>21.19</b>	<b>20.67</b>	<b>21.13</b>	<b>21.42</b>	<b>23.74</b>	<b>23.75</b>	<b>23.15</b>	<b>23.74</b>	<b>23.64</b>	<b>24.18</b>	<b>23.26</b>	<b>23.30</b>
<i>Ag Energy Use</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
<i>Ag Residue Burning</i>	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
<i>Enteric Fermentation</i>	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
<i>Manure Management</i>	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
<i>Rice Cultivation</i>	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
<b>Summary for Included Emissions</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
<b>California CH4 Emissions</b>	<b>34.5</b>	<b>34.8</b>	<b>36.5</b>	<b>36.4</b>	<b>36.0</b>	<b>36.6</b>	<b>37.2</b>	<b>39.4</b>	<b>39.7</b>	<b>39.3</b>	<b>39.9</b>	<b>40.0</b>	<b>40.3</b>	<b>39.5</b>	<b>39.8</b>

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**Methane**

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

<b>Excluded Emissions</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
<b>Transportation</b>	<b>0.02</b>	<b>0.02</b>	<b>0.02</b>	<b>0.02</b>	<b>0.02</b>	<b>0.02</b>	<b>0.02</b>	<b>0.02</b>	<b>0.02</b>	<b>0.02</b>	<b>0.02</b>	<b>0.02</b>	<b>0.02</b>	<b>0.02</b>	<b>0.02</b>
<i>Aviation</i>	<i>0.01</i>	<i>0.01</i>	<i>0.01</i>	<i>0.01</i>	<i>0.01</i>	<i>0.01</i>	<i>0.01</i>	<i>0.01</i>	<i>0.01</i>	<i>0.01</i>	<i>0.01</i>	<i>0.01</i>	<i>0.01</i>	<i>0.01</i>	<i>0.01</i>
<i>Water-borne</i>	<i>0.02</i>	<i>0.01</i>	<i>0.01</i>	<i>0.01</i>	<i>0.01</i>	<i>0.01</i>	<i>0.02</i>	<i>0.02</i>	<i>0.02</i>	<i>0.02</i>	<i>0.02</i>	<i>0.01</i>	<i>0.01</i>	<i>0.01</i>	<i>0.01</i>
<b>Industrial</b>	<b>0.41</b>	<b>0.54</b>	<b>0.55</b>	<b>0.55</b>	<b>0.10</b>	<b>0.10</b>	<b>0.59</b>	<b>0.62</b>	<b>0.62</b>	<b>0.62</b>	<b>0.62</b>	<b>0.60</b>	<b>0.60</b>	<b>0.60</b>	<b>0.60</b>
<i>Oil &amp; Gas Extraction</i>	<i>0.41</i>	<i>0.54</i>	<i>0.55</i>	<i>0.55</i>	<i>0.10</i>	<i>0.10</i>	<i>0.59</i>	<i>0.62</i>	<i>0.62</i>	<i>0.62</i>	<i>0.62</i>	<i>0.60</i>	<i>0.60</i>	<i>0.60</i>	<i>0.60</i>
<b>Military</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<i>Not Specified Military</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>
<b>Summary for Excluded Emissions</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
International and Interstate CH4 Emissions	0.4	0.6	0.6	0.6	0.1	0.1	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

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**Methane**

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**2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014**

This section of the inventory is currently under development