

Emissions of Greenhouse Gases in the United States 2004

Report #: DOE/EIA-0573(2004)
Released Date: December 2005
Next Release Date: December 2006

Table 15. U.S. Methane Emissions from Anthropogenic Sources, 1990 and 1996-2004

Source	1990	1996	1997	1998	1999	2000	2001	2002	2003	P2004
Million Metric Tons Carbon Dioxide Equivalent										
Energy Sources										
Coal Mining	97.7	73.4	80.4	75.6	71.7	68.5	68.0	64.7	67.2	68.2
Natural Gas Systems	128.9	138.1	144.3	143.9	144.2	151.0	147.0	154.0	153.1	152.6
Petroleum Systems	29.9	26.4	26.3	25.5	24.0	23.8	23.7	23.5	23.3	23.2
Stationary Combustion	13.0	13.3	10.1	9.1	9.6	10.1	8.7	7.6	8.5	8.0
Mobile Sources	5.6	5.1	5.1	4.8	4.8	4.7	4.6	4.6	4.3	4.4
Total Energy Sources	275.0	256.3	266.2	258.9	254.4	258.1	252.0	254.3	256.4	256.3
Waste Management										
Landfills	257.0	219.8	208.1	195.0	187.4	183.3	175.8	173.4	178.1	182.6
Wastewater Treatment	13.2	14.3	14.5	14.7	14.8	15.0	15.2	15.3	15.5	15.6
Total Waste Management ...	270.2	234.2	222.6	209.7	202.2	198.3	191.0	188.7	193.6	198.2
Agricultural Sources										
Enteric Fermentation	119.6	122.0	119.1	117.2	117.3	116.3	115.1	115.7	116.2	115.2
Animal Waste	43.5	49.7	52.7	53.6	52.7	52.8	53.3	53.7	54.2	54.7
Rice Cultivation	9.3	9.4	10.3	10.7	11.5	10.2	10.7	10.2	9.8	11.0
Crop Residue Burning	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.0	1.2	1.3
Total Agricultural Sources ..	173.4	182.2	183.3	182.6	182.5	180.5	180.3	180.6	181.3	182.3
Industrial Processes	2.7	3.1	3.1	3.1	3.1	2.9	2.5	2.6	2.6	2.7
Total	721.4	675.8	675.2	654.2	642.2	639.8	625.8	626.2	633.9	639.5
Million Metric Tons Methane										
Energy Sources										
Coal Mining	4.25	3.19	3.50	3.29	3.12	2.98	2.96	2.81	2.92	2.96
Natural Gas Systems	5.60	6.00	6.27	6.26	6.27	6.57	6.39	6.70	6.66	6.64
Petroleum Systems	1.30	1.15	1.14	1.11	1.04	1.03	1.03	1.02	1.01	1.01
Stationary Combustion	0.56	0.58	0.44	0.39	0.42	0.44	0.38	0.33	0.37	0.35
Mobile Sources	0.24	0.22	0.22	0.21	0.21	0.21	0.20	0.20	0.19	0.19
Total Energy Sources	11.96	11.14	11.57	11.25	11.06	11.22	10.96	11.06	11.15	11.14
Waste Management										
Landfills	11.17	9.56	9.05	8.48	8.15	7.97	7.64	7.54	7.74	7.94
Wastewater Treatment	0.56	0.62	0.63	0.64	0.65	0.65	0.66	0.67	0.67	0.68
Total Waste Management ...	11.75	10.18	9.68	9.12	8.79	8.62	8.30	8.20	8.42	8.62
Agricultural Sources										
Enteric Fermentation	5.20	5.30	5.18	5.10	5.10	5.06	5.01	5.03	5.05	5.01
Animal Waste	1.89	2.16	2.29	2.33	2.29	2.29	2.32	2.33	2.36	2.38
Rice Cultivation	0.40	0.41	0.45	0.47	0.50	0.44	0.47	0.45	0.43	0.48
Crop Residue Burning	0.04	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.06
Total Agricultural Sources ..	7.54	7.92	7.97	7.94	7.94	7.85	7.84	7.85	7.88	7.92
Industrial Processes	0.12	0.13	0.13	0.13	0.13	0.13	0.11	0.11	0.11	0.12
Total	31.36	29.38	29.36	28.44	27.92	27.82	27.21	27.23	27.56	27.80

P = preliminary data.

Notes: Data in this table are revised from the data contained in the previous EIA report, *Emissions of Greenhouse Gases in the United States 2003*, DOE/EIA-0573(2003) (Washington, DC, December 2004). Totals may not equal sum of components due to independent rounding.

Sources: EIA estimates presented in this chapter. Emissions calculations based on Intergovernmental Panel on Climate Change, *Greenhouse Gas Inventory Reference Manual: Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories*, Vol. 3 (Paris, France, 1997), pp. 4.83-4.84, web site www.ipcc.ch/pub/guide.htm; and U.S. Environmental Protection Agency, *Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2003*, EPA-430-R-05-003 (Washington, DC, April 2005), web site <http://yosemite.epa.gov/oar/globalwarming.nsf/content/ResourceCenterPublicationsGHGEmissionsUSEmissionsInventory2005.html>.