Table 11.5c Emissions From Energy Consumption for Electricity Generation and Useful Thermal Output: Commercial and Industrial Sectors, 1989-2010 (Subset of Table 11.5a; Thousand Metric Tons of Gas)

Year	Carbon Dioxide [1]						Sulfur Dioxide					Nitrogen Oxides				
	Coal [2]	Natural Gas [3]	Petroleum [4]	Geo-thermal [5]	Non-Biomass Waste [6]	Total	Coal [2]	Natural Gas [3]	Petroleum [4]	Other [7]	Total	Coal [2]	Natural Gas [3]	Petroleum [4]	Other [7]	Total
Commercial Sector [8]																
1989	2,320	1,542	637	–	804	5,303	37	(s)	5	1	43	9	3	2	3	17
1990	2,418	2,294	706	–	959	6,377	39	(s)	4	1	45	10	6	1	4	21
1991	2,680	2,287	544	–	1,014	6,526	32	(s)	3	1	35	10	6	1	4	21
1992	2,552	2,787	474	–	1,258	7,070	32	(s)	3	1	35	10	7	1	4	21
1993	2,988	3,315	616	–	1,285	8,205	40	(s)	3	1	44	12	7	1	4	24
1994	2,932	3,722	654	–	1,292	8,601	39	(s)	3	(s)	42	11	8	1	4	24
1995	3,106	4,070	509	–	1,462	9,147	30	(s)	3	3	35	8	20	6	11	45
1996	3,639	4,369	534	–	2,023	10,565	40	(s)	3	4	47	9	23	4	14	50
1997	3,871	4,654	716	–	2,277	11,518	43	(s)	3	6	51	10	34	7	14	65
1998	3,341	4,707	829	–	2,081	10,958	37	(s)	5	4	45	10	35	5	16	66
1999	3,468	4,535	742	–	2,008	10,752	34	(s)	4	4	42	9	28	4	17	57
2000	3,635	4,605	740	–	1,684	10,665	33	(s)	4	7	43	8	38	4	16	65
2001	3,366	4,280	839	–	1,418	9,903	43	(s)	4	2	48	13	19	2	16	50
2002	3,025	4,035	571	–	1,520	9,151	41	(s)	2	2	46	13	20	2	13	48
2003	3,904	3,222	683	–	1,706	9,515	32	(s)	3	1	36	9	16	5	15	45
2004	4,018	3,916	920	–	1,962	10,817	30	(s)	3	2	35	8	18	8	16	49
2005	4,031	3,701	759	–	1,897	10,387	33	(s)	3	1	36	9	24	6	15	54
2006	3,908	3,686	445	–	1,946	9,984	33	(s)	3	1	36	9	35	3	17	64
2007	3,994	3,800	363	–	1,635	9,792	33	(s)	3	1	37	10	16	2	16	44
2008	4,155	3,589	310	–	1,953	10,006	32	(s)	1	(s)	33	9	14	1	16	40
2009	3,727	4,093	245	–	2,084	10,149	26	(s)	1	(s)	27	8	13	1	16	39
2010	3,530	4,639	206	–	2,063	10,437	25	(s)	1	(s)	27	7	14	1	15	38
Industrial Sector [9]																
1989	51,017	47,188	11,216	–	420	109,842	616	(s)	169	32	817	218	100	21	63	403
1990	55,837	54,326	17,074	–	734	127,971	666	(s)	304	229	1,199	233	116	31	80	461
1991	54,947	55,255	15,659	–	225	126,086	618	(s)	232	230	1,080	215	108	27	66	416
1992	57,742	57,632	17,010	–	319	132,704	655	(s)	143	251	1,049	218	110	29	67	425
1993	58,474	58,805	17,148	–	562	134,988	671	(s)	113	257	1,041	219	110	29	70	429
1994	60,202	61,431	17,186	–	571	139,390	664	(s)	126	267	1,057	219	114	30	71	435
1995	60,212	65,856	15,466	–	505	142,040	585	(s)	243	262	1,090	154	231	43	128	556
1996	60,438	68,237	17,377	–	763	146,815	642	(s)	256	268	1,166	154	228	48	128	558
1997	60,444	68,311	17,701	–	719	147,175	653	(s)	309	261	1,223	155	215	50	121	541
1998	58,967	72,914	17,174	–	546	149,601	603	(s)	247	248	1,099	148	234	53	121	557
1999	59,073	76,100	17,043	–	624	152,840	576	(s)	260	243	1,080	144	223	55	120	541
2000	59,410	75,887	15,440	–	577	151,315	556	(s)	184	248	988	138	238	34	123	533
2001	54,735	71,765	13,457	–	693	140,650	581	(s)	245	259	1,085	206	187	39	156	587
2002	56,665	67,460	11,719	–	640	136,484	639	(s)	221	303	1,163	231	181	36	170	618
2003	52,390	62,598	13,173	–	783	128,944	401	(s)	135	224	761	102	155	28	119	404
2004	55,744	65,413	14,570	–	1,044	136,771	415	(s)	136	227	779	95	157	25	100	376
2005	53,675	59,216	13,791	–	1,145	127,826	395	(s)	124	241	760	75	117	27	104	322
2006	52,418	61,035	12,185	–	1,703	127,341	419	(s)	161	218	798	86	134	26	117	362
2007	48,282	57,467	11,860	–	1,609	119,218	353	1	154	217	726	79	129	26	113	346
2008	46,514	52,261	7,103	–	798	106,675	411	1	103	217	731	93	107	16	84	300
2009	41,268	54,031	7,529	–	824	103,651	256	(s)	98	214	569	73	108	15	81	277
2010	48,786	56,110	5,920	–	779	111,596	274	(s)	105	210	590	85	110	14	86	294

[1] Metric tons of carbon dioxide can be converted to metric tons of carbon equivalent by multiplying by 12/44.
[2] Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.
[3] Natural gas, plus a small amount of supplemental gaseous fuels.
[4] Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, and waste oil.
[5] Carbon dioxide in geothermal steam.
[6] Municipal solid waste from non-biogenic sources, and tire-derived fuel.
[7] Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels; wood and wood-derived fuels; municipal solid waste, landfill gas, sludge waste, tires, agricultural byproducts, and other biomass; and chemicals, hydrogen, pitch, sulfur, and tar coal.
[8] Commercial combined-heat-and-power (CHP) and commercial electricity-only plants.
[9] Industrial combined-heat-and-power (CHP) and industrial electricity-only plants.

– =No data reported. (s)=Less than 0.5 thousand metric tons.

Notes: • Data are for emissions from energy consumption for electricity generation and useful thermal output. • See Table 11.5b for electric power sector data. • See Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 8. • See "Useful Thermal Output" in Glossary. • Totals may not equal sums of components due to independent rounding.

Web Page: For related information, see http://www.eia.gov/electricity/.

Sources: **Carbon Dioxide:** U.S. Energy Information Administration (EIA) estimates based on Form EIA-923, "Power Plant Operations Report" (and predecessor forms). **Sulfur Dioxide** and **Nitrogen Oxides:** EIA estimates based on Form EIA-923, "Power Plant Operations Report" (and predecessor forms). Data were adjusted by the U.S. Environmental Protection Agency's Continuous Emissions Monitoring System.